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Contributors to This Issue



D. E. Cassels, M.D.



J. M. Kaufman, M.D.



M. R. Kaufman, M.D.



Conrad Lam, M.D.



R. D. Sphire, M.D.

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Office of Publication
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All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 5-7125.

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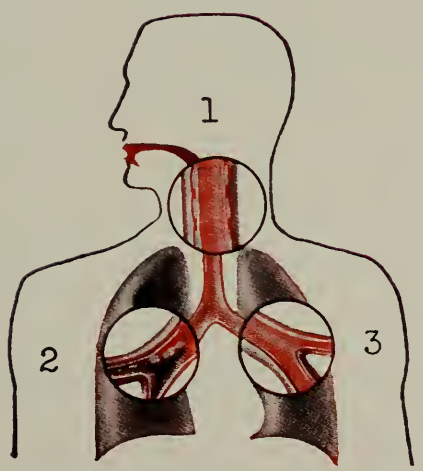
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(Continued on Page 9)

Committees of The Council, 1957-1958

(Continued from Page 8)

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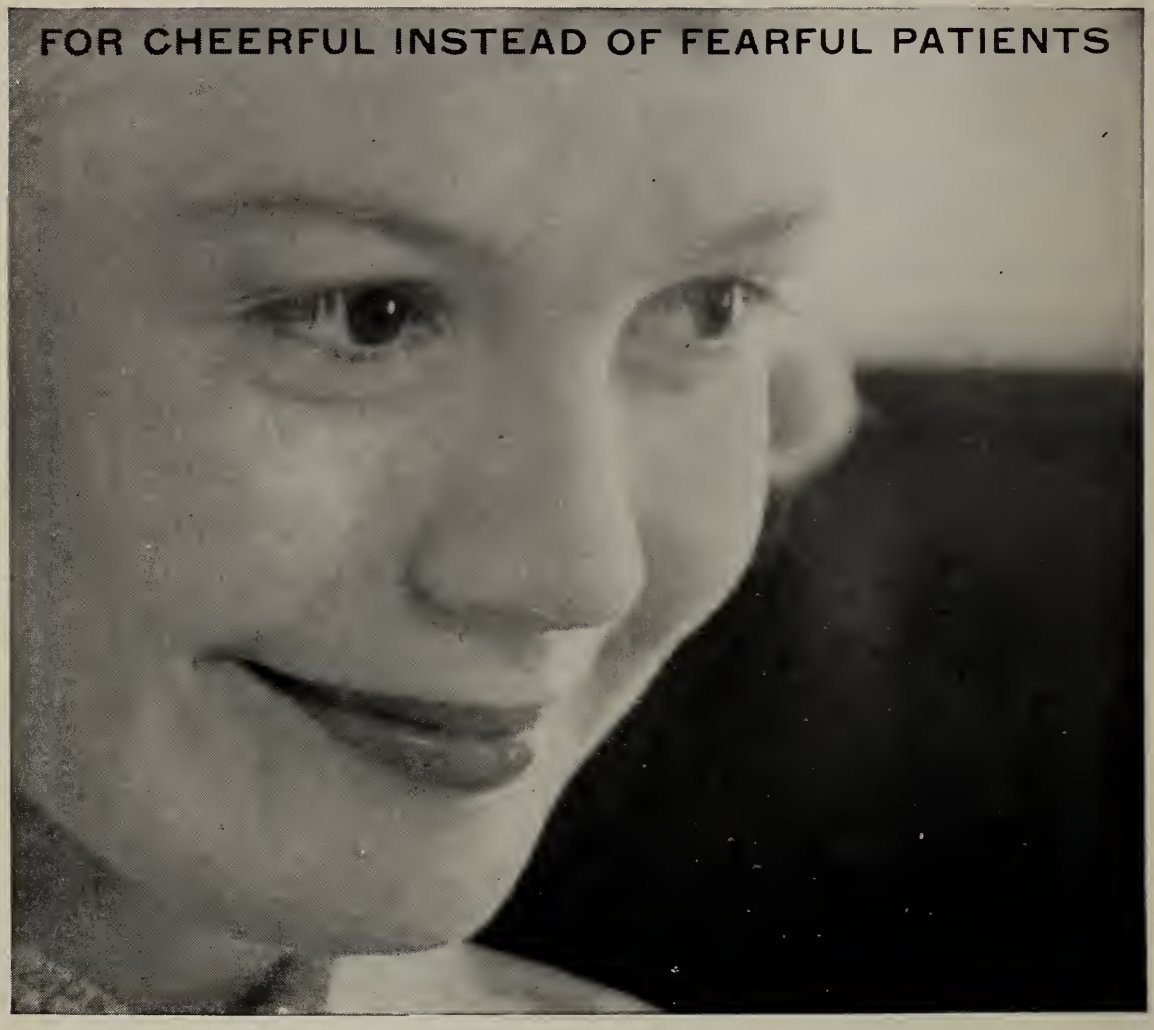
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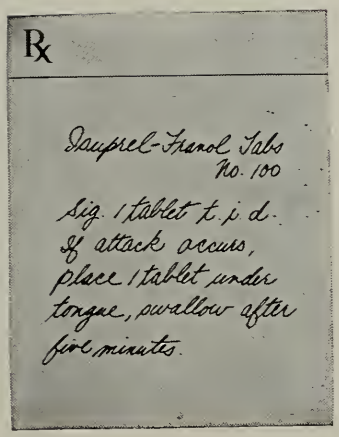
New Isuprel-Franol tablets bring round-the-clock relief *plus* emergency help against sudden attack. Anxiety stops when patients know they'll get relief in 60 seconds — relief that continues for four hours or more.

Isuprel HCl (10 mg. for adults, 5 mg. for children), the most potent bronchodilator known, makes up the outer coating. In a sudden attack, the patient puts the tablet under his tongue. Relief starts in 60 seconds. A unique feature is the "flavor-timer." As the Isuprel is absorbed a lemon flavor appears. When it disappears—about five minutes later — the patient swallows the tablet.

An unexcelled combination for prolonged bronchodilatation makes up the Isuprel-Franol core: benzylephedrine HCl (32 mg.), Luminal® (8 mg.) and theophylline (130 mg.). Swallowed, the tablet works for four hours or more.

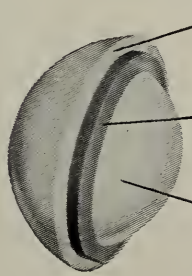
Isuprel-Franol tablets are "... effective in controlling over 80% of patients with mild to moderate attacks of asthma."[1]

1. Fromer, J. L., and DeRisio, V. J.: *Lahey Clin. Bull.* 10:45, Oct.-Dec., 1956.



ISUPREL-FRANOL tablets (Isuprel HCl 10 mg.) for adults;
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One tablet every three or four hours taken *orally* for continuous control of bronchospasm in chronic asthma. One tablet taken *sublingually* for sudden attack. "Flavor-timer" signals when patient should swallow.
Bottles of 100 tablets.

"Flavor-timer" signals patients when to swallow tablets



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Disappearance of flavor is the signal to swallow

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LIVE SURGERY TO BE TELEVISED TO PUBLIC

One of the features of the 1958 Michigan Clinical Institute will be a public showing of "Blood Vessel Surgery" beamed from one of Detroit's hospitals to the public through the facilities of one or more television stations in the Motor City.

This color telecast will be made—live—the evening of Tuesday, March 18, 1958. Co-operating with the M.C.I. in this educational venture will be Smith, Kline and French Laboratories of Philadelphia.

Participants in the production will be D. Emerick Szilagyi, M.D., and Roger F. Smith. M.D., of Detroit, who will perform the surgery; the panel of experts to inform the viewing public on the intricacies of the operation will be Henry T. Bahnson, M.D., Baltimore, Md.; Prescott Jordon, M.D., Detroit; Eugene A. Osius, M.D., Detroit; and Marion deWeese, M.D., Ann Arbor.

Further information on the stations and the exact hour of the presentation will be sent to all members of the Michigan State Medical Society early in February.

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of November 20, 1957

A total of ninety-seven items was presented and discussed at the November 20 meeting of the Executive Committee of The Council, held in Detroit, including:

- **Matters Referred to The Council by 1957 House of Delegates:** (1) Resolution re practice privileges in public hospitals—referred to the Legislative Committee. (2) Resolution re annual registration of doctors of medicine—referred to Liaison Committee with Michigan State Board of Registration in Medicine. (3) Resolution re pilot study of insurance reporting—authorization was given Saginaw County Medical Society to conduct a study of insurance reporting forms. (4) Six referrable items, having to do with pre-paid insurance plans—referred to Michigan Medical Service (Blue Shield).
- **Report of Delegates to AMA,** meeting of November 19, presented by Chairman Wm. A. Hyland, M.D., was discussed and approved.
- **Fee Schedule Committees:** A clarification of duties of several committees studying fee schedules was made by the Executive Committee including request to the Permanent Advisory Committee on Fees (Grover C. Penberthy, M.D., Detroit, Chairman) to proceed with development of a Relative Value Schedule of Services in conjunction with the Medical Care Insurance Committee (M. L. Lichter, M.D., Detroit, Chairman). The Committee on Uniform Fee Schedule for Governmental Agencies (T. H. Hunt, M.D., Detroit, Chairman) was requested to proceed with an early revision of that schedule.
- **Speaker K. H. Johnson, M.D.,** recommended certain changes in the MSMS House of Delegates' schedule, to modernize and make the session more efficient. Five meetings of the House would be held, beginning Sunday evening and running through Monday and Tuesday of the MSMS Annual Session week. The recommendations were approved, for trial in September, 1958.
- **Site Committee** (K. H. Johnson, M.D., Chairman) reported on an offer of property in the greater Lansing area; the Committee was authorized to proceed to purchase or obtain an option on this property.
- **President G. W. Slagle, M.D.,** Battle Creek, announced that he has appointed R. H. Trimby, M.D., of Lansing to the Child Welfare Committee.
- **The programs of the 1958 County Secretaries-Public Relations** Seminar and Editorial Workshop of February 1-2, were presented and approved.
- **Invitation to the AMA** to hold the 1960 Conference on Rural Health in Michigan was authorized.
- **R. M. Heavenrich, M.D.,** of Saginaw (Chairman of MSMS Child Welfare Committee), was authorized to attend U.S. Children's Bureau Conference on Adoptions, Washington, D. C., November 21-22.
- **Request of Section on Occupational Health** for change of name to "Section on Occupational Medicine" was approved.
- **G. B. Saltonstall, M.D.,** Charlevoix (MSMS President-Elect), was appointed as official MSMS representative to attend Conference on Medicare in Philadelphia, Decembr 6.
- **Michigan State Pharmaceutical Association** letter urging greater control of barbiturates—

(Continued on Page 16)



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Highly specific action

ROBAXIN is highly specific in its action on the internuncial neurons of the spinal cord – with inherently sustained repression of multisynaptic reflexes, but with no demonstrable effect on monosynaptic reflexes. It thus is useful in the control of skeletal muscle spasm, tremor and other manifestations of hyperactivity, as well as the pain incident to spasm, without impairing strength or normal neuromuscular function.

Beneficial in 94.4% of cases tested

When tested in 72 patients with acute back pain involving muscle spasm, ROBAXIN induced marked relief in 59, moderate relief in 6, and slight relief in 3 – or an over-all beneficial effect in 94.4%.[1,3,4,6,7] No side effects occurred in 64 of the patients, and only slight side effects in 8. In studies of 129 patients, moderate or negligible side effects occurred in only 6.2%.[1,2,3,4,6,7]

ROBAXIN IN ACUTE BACK PAIN[1,3,4,6,7]

DURATION OF TREATMENT	DOSE PER DAY (divided)	RESPONSE marked	mod.	slight	neg.	SIDE EFFECTS
-42 days	3-6 Gm.	17	1	0	0	None, 16 Dizziness, 1 Slight nausea, 1
-42 days	2-6 Gm.	8	1	3	1	None, 12 Nervousness, 1
-240 days	2.25-6 Gm.	4	1	0	0	None, 5
-28 days	1.5-9 Gm.	24	3	0	3	None, 25 Dizziness, 1 Lightheadedness, 2 Nausea, 2 *
-60 days	4-8 Gm.	6	0	0	0	None, 6
		59	6	3	4	*Relieved on reduction of dose

References: 1. Carpenter, E. B.: Publication pending. 2. Carter, C. H.: Personal communication. 3. Forsyth, H. F.: Publication pending. 4. Freund, J.: Personal communication. 5. Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: American Pharm. Assn. 46:374, 1957. 6. Nachman, H. M.: Personal communication. 7. O'Doherty, D.: Publication pending. 8. Truitt, E. B., Jr., and Little, J. M.: J. Pharm. & Exper. Therap. 119:161, 1957.

Indications – Acute back pain associated with: (a) muscle spasm secondary to sprain; (b) muscle spasm due to trauma; (c) muscle spasm due to nerve irritation; (d) muscle spasm secondary to discogenic disease and postoperative orthopedic procedures; and miscellaneous conditions, such as bursitis, fibrositis, torticollis, etc.

Dosage – Adults: Two tablets 4 times daily to 3 tablets every 4 hours. Total daily dosage: 4 to 9 Gm. in divided doses.

Precautions – There are no specific contraindications to Robaxin and untoward reactions are not to be anticipated. Minor side effects such as lightheadedness, dizziness, nausea may occur rarely in patients with unusual sensitivity to drugs, but disappear on reduction of dosage. When therapy is prolonged routine white blood cell counts should be made since some decrease was noted in 3 patients out of a group of 72 who had received the drug for periods of 30 days or longer.

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HIGHLIGHTS OF THE COUNCIL

(Continued from Page 12)

not to be prescribed over the telephone—was discussed. The Executive Committee of The Council felt that MSMS members should abide by the present law covering this matter.

- **Committee Reports:** (1) Committee on Awards, meeting of November 20; (2) Medical Advisory Committee to Michigan Hospital Service, October 17; (3) Committee Organization, October 23; (4) Geriatrics Committee, October 29; and (6) Michigan Clinical Institute Program Committee, November 11.

- **Matters of mutual interest** were discussed with Michigan Health Commissioner A. E. Heustis, M.D., including: (1) Radiation Standards; (2) Incidence of poliomyelitis; (3) Michigan Public Health Study Commission and its report; and (5) Explosion at Pontiac Paint and Varnish Company.

- **Editor Wilfrid Haughey, M.D.,** Battle Creek, presented a report on two meetings: (a) AMA Sub-Committee on Indigent Care, Chicago, October 20-21; and (b) State Medical Journal Advertising Bureau Conference, Chicago, October 28-29.

- **The Executive Committee of The Council** approved placing JMSMS on microfilm so that it be made available to libraries et al.

- **Council Chairman D. Bruce Wiley, M.D.,** Utica, announced the following appointments: Committee to Review Problems of Medical-Professional Liability: C. E. Umphrey, M.D., Detroit, Chairman, assisted by Charles H. Clifford, M.D., Detroit, and Lester P. Dodd, LL.B., Detroit. E. P. Vary, M.D., Flint, as Chairman and A. H. Kretchmar, M.D., Flint, as member of the Hospital Relations Committee. Bernard Goldman, M.D., Mt. Clemens, to the Committee on Uniform Fee Schedule for Governmental Agencies. F. C. Ryan, M.D., Kalamazoo, to Medical Care Insurance Committee; B. M. Harris, M.D., Ypsilanti, as Chairman and Arch Walls, M.D., as member of Healing Arts Study Committee.

- **St. Clair County Medical Society's** "standard insurance form," to be used by members of that Society, was given approval.

- **Public Relation Counsel's report** included: (a) MSMS Opinion Study; (b) HR 6452 and other legislation; (c) Physician's Award for Vocational Rehabilitation; (d) Premiere of "Something Called Epilepsy"; and (e) Emergency Medical Care.

PREVIEW OF THE 1958 MLA MEETING

The fifty-seventh annual meeting of the Medical Library Association will be held in Rochester, Minnesota, from June 2 through June 6, 1958, with headquarters at the Hotel Kahler. The theme of the Rochester meeting will be "Advances in Medical Library Practice." Mr. Thomas E. Keys, Librarian of the Mayo Clinic, is convention chairman, and letters of inquiry should be addressed to him.

A pre-convention activity is being planned for Saturday, May 31. A series of refresher courses embracing many fields of medical library work will be given. Classes will be made up from the following subjects: Administration, Acquisitions, Classification, Cataloging, Non-book materials, Photoduplication, Public Relations, Reference Work, Rare Books, History of Medicine, Bibliographic Services, Periodicals, Binding, Library Architecture, Equipment, and Medical Terminology.

It will be possible for each participant to take four courses during the day, two in the morning and two in the afternoon. Each session will be one and one half hours in length, the hour for a prepared lecture and a half hour for a discussion period.

Among the highlights of the regular program will be a panel discussion on what the medical specialists expect from the Medical Library. Speakers will be from the Mayo Clinic staff. A one-day trip is being planned to Minneapolis and Saint Paul with visits to the University of Minnesota, The James J. Hill Reference Library, and the Ramsey County Medical Library.

After a day in the Twin Cities, the remainder of the program will be held in Rochester. There will be a Symposium on the Medical Center Library, and a session on American Medical History and Medical Librarianship.

Arrangements are being made for preconvention and postconvention tours for those who may wish to explore some of the natural beauty of Minnesota. All medical librarians are cordially invited to attend.

AMERICAN NURSES ASSOCIATION ROLL CALL

The Michigan State Nurses Association will join all other state nurses associations in the 1958 "ANA Roll Call," a nationwide membership promotion program to be launched on January 15, and to continue through January 31.

Aim of the Roll Call, the first such event to be sponsored by the American Nurses Association, is to enlist through personal contact the interest and support of every professional nurse in order to strengthen the nursing profession, the professional membership organization and the individual member. During the two-week period of the Roll Call,

(Continued on Page 18)



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The Flavor Remains Stable down to the last tablet.

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AMERICAN NURSES ASSOCIATION ROLL CALL

(Continued from Page 16)

members of MSNA will try to contact all prospective members to tell them about the association.

The basic plan is to have all professional nurses, members or not, become better informed as to the need and purpose of a professional nurses association; to know its various functions; to learn how the local district can become a dynamic force in the community; to learn the many ways through which all nurses can assist in the promotion of nursing and the improvement of the status of the professional nurse; to fully understand why professional nurses need to be members and actively participate in the work of the association; to realize it is not for personal gain only, but for a democratic, organized channel through which the professional nurse may contribute of her knowledge, thoughts, ideas, skills and efforts to the ultimate goal—that of promoting professional nursing to the end that better nursing care is given to the public whom we serve.

The office nurses have formed their own section within Michigan State Nurses Association and a national section will be formed early in 1958. All office nurses are encouraged to join MSNA and be identified with the official professional organization. Through their section the office nurses will be able to shape the future of their practice, improve the care given to patients, exchange ideas and experiences about their work, learn better ways of working with allied professional personnel, and improve their economic and general welfare.

A successful Roll Call will take the co-ordinated efforts of many nurses and MSNA is anticipating an appreciable increase in membership in 1958. Knowing the value of a professional association, the members of the Michigan State Medical Society are being asked to lend their support to the MSNA Roll Call.

COUNTY SOCIETY ACTIVITY

Calhoun County

The Calhoun County Medical Society and the ladies held a formal reception and dinner dance in honor of the retiring president Lee Shipp, M.D., December 6, 1957. This was also made the occasion of honors to George W. Slagle, M.D., and Mrs. Slagle in recognition of his presidency of the Michigan State Medical Society.

Genesee County

Quite a number of county medical societies have the habit of making their annual meeting a dinner and reception in honor of the immediate past president. On November 26, 1957, the Genesee County Medical Society honored its immediate past president, Otto J. Preston, M.D., and this year added to the occasion by including a list of twenty past presidents serving prior to the year 1953-1954. Through its committee on alcoholism, the Genesee Society has issued a very attractive eight-page pamphlet with cover on "A Happy Solution to the Problem of Alcoholism."

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Peace and quiet. Freedom of a large and richly furnished home and acres of lawns and wooded rolling grounds, scientifically prepared tasty meals, congenial companionship. A real

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Approved by the American Medical Association and Michigan State Department of Social Welfare—Highly recommended by members of the Medical Profession who have had patients at the Lodge.

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5. vitamin E for muscle tone.
6. vitamins A, D, and E made aqueous* for far faster and more complete absorption and utilization.
7. vitamin B_6... anticonvulsant vitamin.
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AMA Washington Letter

THE MONTH IN WASHINGTON

Eleven years ago, in passing the National Employment Act of 1946, Congress provided for two organizations whose sole function is to promote maximum employment, maximum production and maximum purchasing power. One is Congress' own Joint Economic Committee; the other, the President's Council of Economic Advisers.

The President's Council constantly studies all forces—social as well as financial—that affect employment and production, and before each January 20 makes its report to the President, who in turn utilizes that in drafting his annual economic report to Congress.

At the same time the Congressional Joint Economic Committee is making its own separate studies, holding hearings and preparing a background of information against which to judge the President's economic recommendations when they come before it. The Congressional committee, however, is wholly advisory; it does not itself draft legislation but makes public its annual report before each March.

Although this committee is denied legislating power, its influence often directs the course of legislation. For example, a strong, one-page report from this committee is credited with keeping Congress in session after start of the Korean war and thus preventing a scheduled decrease in taxes.

When it calls in witnesses, the Joint Committee attempts to obtain a broad cross-section of opinion —the liberal along with the conservative. For this reason, recent hearings under sponsorship of the Joint Committee attracted more than casual interest. They brought together conflicting general philosophies and controversial specific issues. In the health-welfare fields, the following were some of the views:

The question of hospitalization for the retired aged through the social security mechanism was debated pro and con by the panelists. Two views:

Prof. Wilbur Cohen, University of Michigan—The former Social Security official maintains that the system can stand the drain of hospitalization for the aged. It could be done for one half of 1 per cent of taxable income, he argued, and he would raise the latter to the first $6,600 of income instead of the present $4,200.

W. Glenn Campbell, American Enterprise Association—Congress should give the medical profession and the insurance industry a chance to work out this problem through traditional methods rather than institute a costly compulsory system with all its attendant damage to the effective practice of medicine.

Secretary Folsom of HEW—The burdens of disease, disability, ignorance and insecurity cannot be escaped by under-investment in health, education and welfare. Such an under-investment would have a costly effect on private charities, budgets of governments, efficiency of industry and the purchasing power of consumers.

Prof. Clarence D. Long, Johns Hopkins University—An expansion of social welfare programs will have a very great stimulating effect on the economy, provided we play down those programs that involve mere charity and emphasize those that help people to help themselves.

On the day of the hearing on health, education and welfare, the panelists agreed that no crash programs in education were called for despite the scientific manpower shortages. Other comments on education:

Professor Paul J. Strayer, Princeton University—Either federal aid will be forthcoming on terms that can be acceptable to the states or we will suffer a general deterioration in the quality of education.

President Howard R. Bowen, Grinnell College—Federal aid should not be granted directly to colleges and universities but through intermediary non-profit corporations controlled by boards of trustees made up of distinguished citizens.

NOTES: A possible indication of legislation in 1958 comes from a December tour of southern medical schools by members of the House Interstate and Foreign Commerce Committee's health subcommittee. Among other things, they were concerned with the schools' need for more laboratories and classrooms.

The Department of Health, Education and Welfare has started a 12-year study on the activities of a group of 3,000 newly retired men and women.

Community-wide chest x-ray campaigns to detect tuberculosis, long a popular public health device, now are in disfavor with U. S. Public Health Service. PHS recommends instead that tuberculin skin tests be used generally with chest x-rays reserved for selective groups likely to have high incidence of the disease.

Between July 1 and mid-December, almost half the population of the country had been taken ill with an upper respiratory condition, including Asian influenza.

In its first year of operation, Medicare spent $43 million, with $22 million going to civilian physicians and $21 million to civilian hospitals; administrative costs ran about 3 per cent. Some claims are still pending.

STOP respiratory congestion orally

relief in minutes..lasts for hours

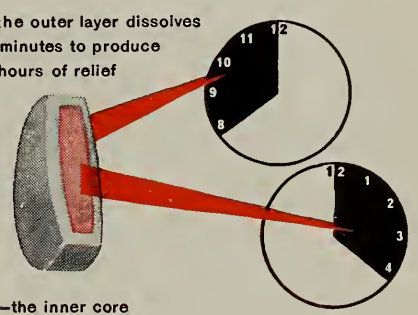
In the common cold, nasal allergies, sinusitis, and postnasal drip, one timed-release Triaminic tablet brings welcome relief of symptoms *in minutes*. Running noses stop, clogged noses open—and *stay* open for 6 to 8 hours. The patient can breathe again.

With *topical* decongestants, "unfortunately, the period of decongestion is often followed by a phase of secondary reaction during which the congestion may be equal to, if not greater than, the original condition. . . ."* The patient then must reapply the medication and the vicious cycle is repeated, resulting in local overtreatment, pathological changes in nasal mucosa, and frequently "nose drop addiction."

Triaminic does not cause secondary congestion, eliminates local overtreatment and consequent nasal pathology.

*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

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AMA News Notes

AMA-AHA JOINT COMMITTEE STUDIES MEDICOLEGAL PROBLEMS

A concerted educational program on medical professional liability is being formulated by a joint committee of the American Medical Association and the American Hospital Association. Among other things, the liaison committee plans to study current medicolegal advisory set-ups in a number of states, the liability of charitable and governmental hospitals, and ways of promoting postgraduate education in the professional liability field. Progress reports will be submitted to the boards of trustees of the two associations, and physicians and hospital personnel will be kept informed on all action taken through the organizations' official publications.

Representatives appointed from AMA include: Drs. Joseph F. Sadusk, Jr., Oakland, Calif., chairman; H. Close Hesseltine, Chicago, and William M. Nebeker, Salt Lake City. AHA representatives are: Ray E. Brown, Chicago; Dr. August H. Groeschel, New York, and James E. Ludlam, Los Angeles.

MD'S TO SEE NEW MEDICOLEGAL FILM IN JUNE

The AMA Law Department announces that "traumatic neurosis" will be the subject of the third film in the series of six medicolegal films to be produced in cooperation with the Wm. S. Merrill Company of Cincinnati. The film will delve into some of the problems that face psychiatrists and neurologists in identifying patients' psychoses resulting from various traumatic experiences. Physicians will have an opportunity to see the premiere showing of this film at the AMA's Annual Meeting in June in San Francisco.

Previous motion pictures in the series include "The Medical Witness" and "The Doctor Defendant." Other films in the series will deal with in-hospital medical professional liability problems and forensic pathology.

RURAL HEALTH CONFERENCE SCHEDULED

Changing patterns in nutrition, health costs, medical care, dental health and safety will serve as the focal point for discussion at the thirteenth national Conference on Rural Health to be held March 6-8, 1958, at the Hotel Heidelberg, Jackson, Mississippi. The conference is sponsored by the AMA's Council on Rural Health in co-operation with southern state medical associations and farm, educational and allied organizations. Following the theme—"As the World Turns"—the conference will open Thursday morning, March 6, with greetings by the governor of Mississippi, the mayor of Jackson, the president of the Mississippi State Medical Association, a member of AMA's Board of Trustees and the chairman of the Council.

Highlights include: *Thursday afternoon*—panel on nutrition and a skit depicting a family's visit to the dentist. *Thursday evening*—presentation on a visit to the doctor's office with emphasis on the physical examination. *Friday morning*—panel on safety and a discussion of what the patient expects from his doctor and the doctor of his patient. *Friday afternoon*—panel on new developments in health insurance plans and a report on Mississippi's physician training and placement service. *Friday evening*—annual banquet.

Saturday morning—five presentations on outstanding achievements in rural communities: (1) health improvement association in rural Illinois; (2) Oklahoma's visiting nurses service; (3) a 4-H Club safety lifting program; (4) 4-H Club work in Nebraska, and (5) Ohio's preceptorship program. Also a summary and inspirational message will be given by Mrs. Charles W. Sewell of Otterbein, Ind., member-at-large of the advisory committee to the Council.

TWO NEW AMA EXHIBITS

Reducing and accidental poisoning of children are the themes of two new exhibits the American Medical Association is offering to medical societies early in 1958. (1) "You Can Reduce" stresses the importance of using will power in the selection of foods. The exhibit illustrates the basic foods that should be eaten every day, those to "fill up" on and those to "cut down" on. Three dimensional models depict the calorie content of certain basic foods. (2) "Poisoning of Children in the Home" pinpoints eight leading offenders, such as aspirin, kerosene, old medicines and household chemicals. A display of products on a revolving tree-like arrangement also is included in this portable exhibit. Medical society bookings may be arranged through the Bureau of Exhibits after January 1.

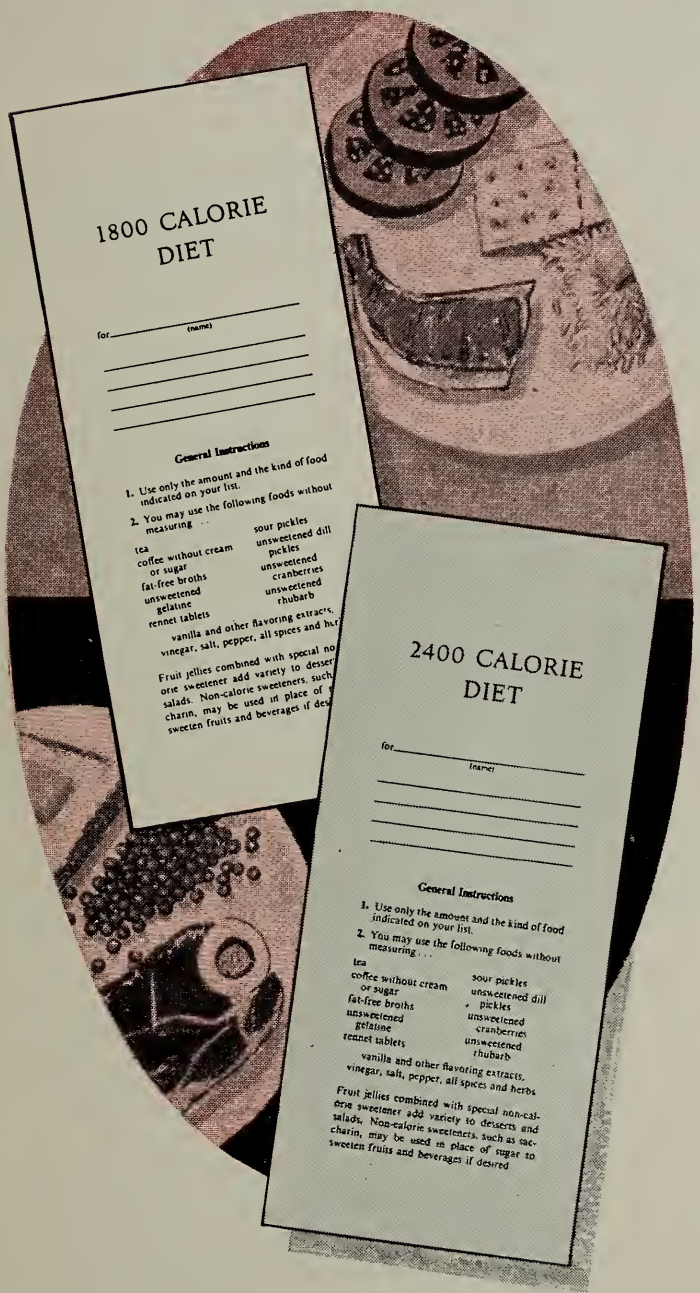
SECOND LEGAL CONFERENCE PLANNED

Legal problems currently facing individual physicians and organized medicine will be the primary discussion topics at the second meeting of state and county medical society executive secretaries and attorneys May 9-10 at the Drake Hotel, Chicago. Before the final agenda can be set up, the AMA Law Department hopes that medical societies will send in their suggestions on specific legal subjects that would be of the most interest to them. The first such meeting—also sponsored by the Law Department—was held in April, 1956.

RADIO-TV REPORT AVAILABLE FROM AMA

Medical societies interested in developing worthwhile local radio and television programs may secure copies of the summary of the recent radio-TV conference sponsored by the AMA and the National Association of Radio and Television Broadcasters from the AMA's Public Relations Department. The report contains basic information and helpful hints on using local radio ad television in the health field. Representatives of state and county medical societies, allied health and welfare organizations and radio and television stations attended the two-day Chicago meeting.

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PR REPORT

HOUSE AND SENATE SHIFT INTO HIGH

With the February 12 cut-off date for introduction of bills looming near, the legislative tempo is picking up. Committees are working hard to clear their dockets. Non-critical bills are being shelved until next year as lawmakers strive to hold to their scheduled adjournment date of April 11.

Capitol Note: Former Michigan Attorney General Thomas M. Kavanagh assumed his position on the Supreme Court in Lansing swearing-in ceremonies the first of January. He was elected to that body in the 1957 spring election. Univerversity of Michigan Regent Paul L. Adams (Sault Ste. Marie) succeeded Kavanagh as Attorney General by gubernatorial appointment last December.

PONTIAC HOSPITAL OPENS POISON CONTROL CENTER

St. Joseph Mercy Hospital in Pontiac has become the fourth hospital in the state and the twenty-third in the nation to establish a Poison Control Center. Robert J. Mason, M.D., assistant chief of pediatrics at the hospital, instituted the center which will contain a card index on the approximately 10,000 products found in most homes. The toxic and non-toxic ingredients of each product as well as antidotes will be typed on cards enabling the doctors to give prompt advice to people who make emergency phone calls. By referring to the cards, the doctors will also be able to determine whether the patient should be taken to the hospital.

COUNTY SOCIETY BULLETIN EDITORS ATTEND WORKSHOP

Practicing medicine and serving as editor of a county society bulletin are both fulltime jobs. The problem for the physician editor is how to put out the best Bulletin with the least expenditure of time.

In late January, an Editor's Workshop sponsored by MSMS was arranged to meet this problem head-on and offer individual and group help to representatives of the fifteen county medical societies who publish monthly journals.

All aspects of producing a specialized periodical were discussed by leaders in special fields. News writing and reader appeal were discussed by Jack Pickering, Science Editor of the *Detroit Times,* who led off the meeting as luncheon speaker.

Other topics covered in round-table session were: "How to Get the Best Out of Your Printer;" "Building Advertising Income"; "Format and Design—the Key to Readership."

The Editor's Workshop is the first attempt to bring editors and the press together on a statewide basis. Its success could mark the beginning of similar workshops in this specialized field of medical public relations on local levels.

LOCAL PR NEWS

(Gathered from the statewide press)

Bay City druggists and medics gathered at a joint dinner meeting in mid-November, where J. D. Miller, M.D., of Grand Rapids, served as panelist in his capacity as Chairman of the MSMS Liaison Committee with the Michigan State Pharmaceutical Association.

* * *

The Saginaw County Medical Assistants Society highlighted its dinner program of November 12, with a surprise tribute to J. E. Manning, M.D., for his work in furthering the activities of the assistants group during Doctor Manning's term as president of the local medical society.

* * *

Lapeer doctors of medicine offered to test all of their patients for diabetes without charge during Diabetes Week, November 17-23. The drive was announced by T. K. Buchanan, M.D., president of the Lapeer County Medical Society.

* * *

Doctors of the Upper Peninsula met with hospital administrators and legislators in early November and discussed the financial problems of hospitals. Highlights of the agenda were the State's practice of paying fees which are less than the actual cost of care of the crippled children which it sends to hospitals, and the problem of the hospitals' failure to collect many large bills for accident cases.

* * *

George W. Slagle, M.D., MSMS President, was guest speaker at the November meeting of the Barry County Medical Society. Dr. Slagle discussed the aims and purposes of organized medicine and the inter-relationships of the state and local groups.

* * *

Doctors and lawyers held their second annual joint meeting in Muskegon in mid-November. Program panelists included Grover C. Penberthy, M.D., and Lester P. Dodd, MSMS Legal Counsel. Interprofessional relationships of doctors and lawyers, was the evening's topic for discussion.

* * *

Cyrus B. Gardner, M.D., of Lansing, was presented a citation for outstanding service to the community and the Ingham County Medical Society, November 19, at the Society's monthly meeting. Doctor Gardner has practiced thirty-six years in his community and is a former president of the State Board of Registration in Medicine.

* * *

A formal banquet honoring Thomas J. Bass, M.D., of Ypsilanti, was given by members of St. John Baptist Church on November 13. Doctor Bass is assistant chief of medical service at Beyer Memorial Hospital.

* * *

Saginaw physicians, dentists and druggists held their annual stag dinner recently and drug stores announced they would close for the occasion. Emergency telephone numbers for each were posted and advertised. Doctors' calls were handled through their business bureau.

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Induced Cardiac Arrest as an Aid in Open Heart Operations

By Conrad R. Lam, M.D., Thomas Gahagan, M.D., Charles Sergeant, M.D., and Edward Green, M.D.
Detroit, Michigan

PROGRESS in cardiac surgery has been rapid and dramatic since the successful ligation of the ductus arteriosus by Robert Gross in 1938. Actually, the first "heart operations," which were for patent ductus arteriosus, coarctation of the aorta and the tetralogy of Fallot, were not carried out on the heart itself but involved the great vessels outside the pericardium. The first practical intracardiac operation was the transventricular pulmonary valvotomy devised by the London surgeon, Brock. Then came mitral commissurotomy, aortic commissurotomy and closed methods of the repair of interatrial septal defects. In these operations, the surgeon could feel, but not see, what he was doing.

The use of general body hypothermia made possible at least two intracardiac operations under direct vision, namely, pulmonary valvotomy and the closure of simple interatrial septal defects. The management of defects requiring more than 5 minutes of cessation of the circulation was not possible until a satisfactory method of extracorporeal oxygenation of blood was available. Lillehei and the group at the University of Minnesota Hospitals were able to repair ventricular septal defects with the use of an anesthetized human being as the "extra corporeal lung."[1] Shortly afterward, they developed a practical oxygenator of the bubble type so that cross circulation with humans was no longer necessary.[2]

Although this method of extracorporeal oxygenation permitted many operations formerly impossible, there was obviously one shortcoming in it which might be eliminated. This was the beating of the heart. During the conventional by-pass of the heart using the pump-oxygenator with the heart beating, there is a continuous flow of blood from the coronary sinus which may obscure the operating field in the ventricle or atrium even though attempts are made to remove the blood by aspiration. If the by-pass is for a considerable period of time, it is necessary that the aspirated blood be returned to the system and a certain amount of hemolysis and other trauma to the blood is produced. In the open, beating heart, there is danger of air embolism to important systemic arteries. Finally, it is obvious that some of the surgical procedures can be carried out with greater accuracy if the field is quiet as well as dry.

The possibility that some form of drug-induced cardiac arrest might be of value in intracardiac procedures was investigated in our laboratory in the fall of 1952. Our report[3] to the Michigan Heart Association dated January 15, 1953, contained the following paragraph:

"An Investigation of the Value of Stopping the Heart for Intracardiac Operations: A solution of potassium chloride has been used to cause an immediate cardiac arrest. The token operation is carried out, after which the heart is started by massage, electrical defibrillation,

From the Divisions of Thoracic Surgery and Pediatric Cardiology of the Henry Ford Hospital, Detroit, Michigan.

The experimental work herein reported was supported by a grant from the Michigan Heart Association.

calcium salts and cardiac stimulants as necessary. This technique has been used in operations of four minutes' duration in which the right side of the heart has been opened. The last five consecutive animals in the series have survived for one month or more with no residuals.

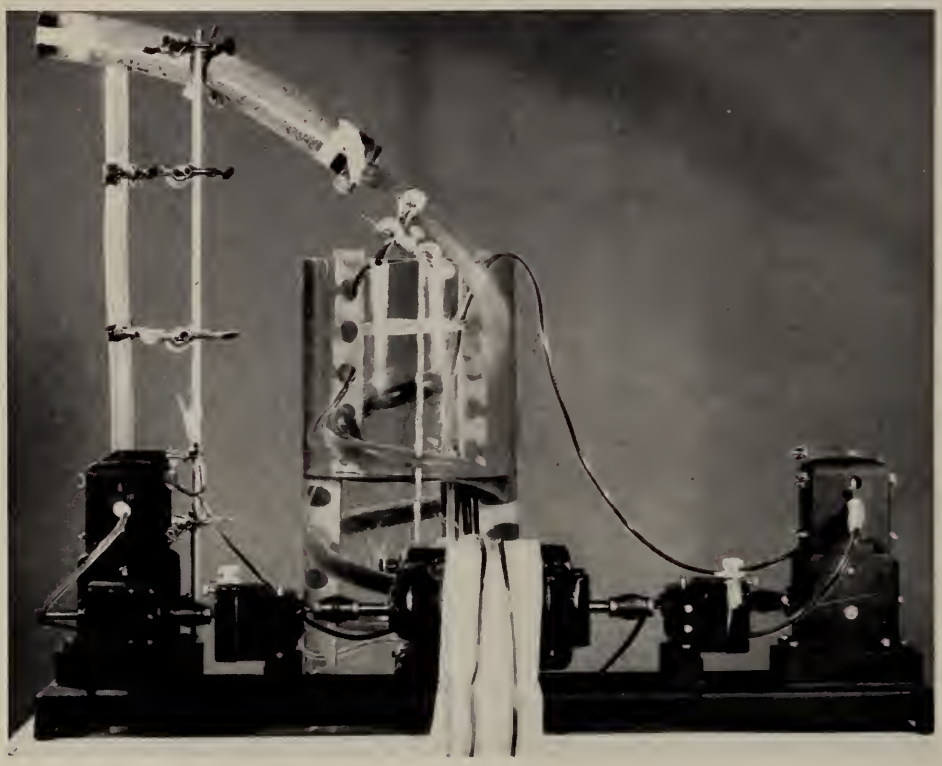


Fig. 1. Pump-oxygenator of the bubble type (Lillehei, DeWall, and their associates). The left head of the Sigmamotor pump removes the blood from the vena cavas and forces it into the vertical oxygenation tube. Bubbles are removed in the larger inclined tube, and the blood collects in the helix in the water bath, where it is removed by the pump head on the right and returned to the aorta.

Operations with the heart asystolic for ten minutes have been done with the aid of cerebral cross transfusion with a donor animal. A study is now in progress to compare the likelihood of recovery of hearts treated in this way with those rendered bloodless by simple vena caval occlusion."

This study went on to include a large number of experimental cardiac arrests in dogs with the nervous system protected by hypothermia rather than cross circulation, and the results were reported in 1955 before the American Association for Thoracic Surgery.[4] Evidence of further progress in the problem was summarized in our report to the Michigan Heart Association dated January 14, 1956:

"Because of the disadvantages of potassium-induced cardiac standstill, which is nearly always complicated with ventricular fibrillation during the period of resuscitation, we have investigated the possibilities of acetylcholine as an "anesthetic agent" for the heart. In acute experiments, this appeared to be the ideal method. With the aorta occluded just distal to the coronary ostia, a solution of acetylcholine was injected into the aorta and thence into the coronary arteries. There was an immediate cessation of the heartbeat. After a variable period of time, heparinized whole blood was perfused through the coronary system and the heartbeat reappeared spontaneously."

Naturally, the reservoir of heparinized blood was soon replaced by a pump-oxygenator which not only supplied an inexhaustible supply of oxygenated blood for the resuscitation of the heart, but also gave protection to the brain and other parts of the body during the period when the heart was out of the circulation. The pump-oxygenator which we first used and continue to use is that of the bubble type devised by Lillehei, DeWall and their associates (Fig. 1). Since April 4, 1956, the combination of extracorporeal oxygenation and induced cardiac arrest has been used in the surgical treatment of 121 patients.

The method of inducing cardiac arrest which we have adopted is illustrated in Figure 2. After the introduction of the cannulas into the subclavian artery and the two vena cavas, they are

attached to the pump-oxygenator and the pump is started. The snares about the caval cannulas are tightened and the level of the blood in the helix of the oxygenator is observed to see if inflow

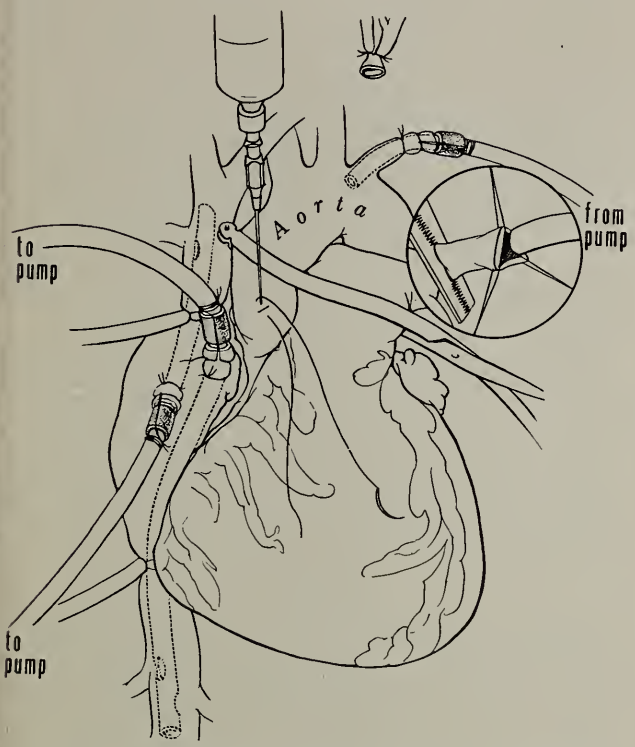


Fig. 2. Diagram of cannulations for the pump-oxygenator, and method of producing cardiac arrest by the injection of acetylcholine into the root of the aorta proximal to a clamp.

and outflow rates are equal. A non-crushing clamp is placed across both the aorta and pulmonary artery. Acetylcholine in the amount of 10 mg. per kilogram of body weight is injected into the aorta proximal to the clamp. The heart stops when about two-thirds of the solution has been injected but the injection is continued until the calculated dose has been given. Although apparently in arrest, the heart beats when the ventricular well is stimulated mechanically. There is usually no activity during the suturing of ventricular septal defects or operations on the heart valves. No additional acetylcholine is given for the sporadic beats which arise as a result of this direct stimulation.

Resuscitation of the heart is remarkably simple. The clamp is removed from the aorta permitting the blood from the oxygenator to flow into the coronary arteries. The acetylcholine is washed out of the coronary vessels and escapes into the right auricle through the coronary sinus. It then escapes through the atrial or ventricular incision or if such an incision is not present (as would be the case during an operation on an aortic valve), a path of egress must be provided. A catheter inserted through a small

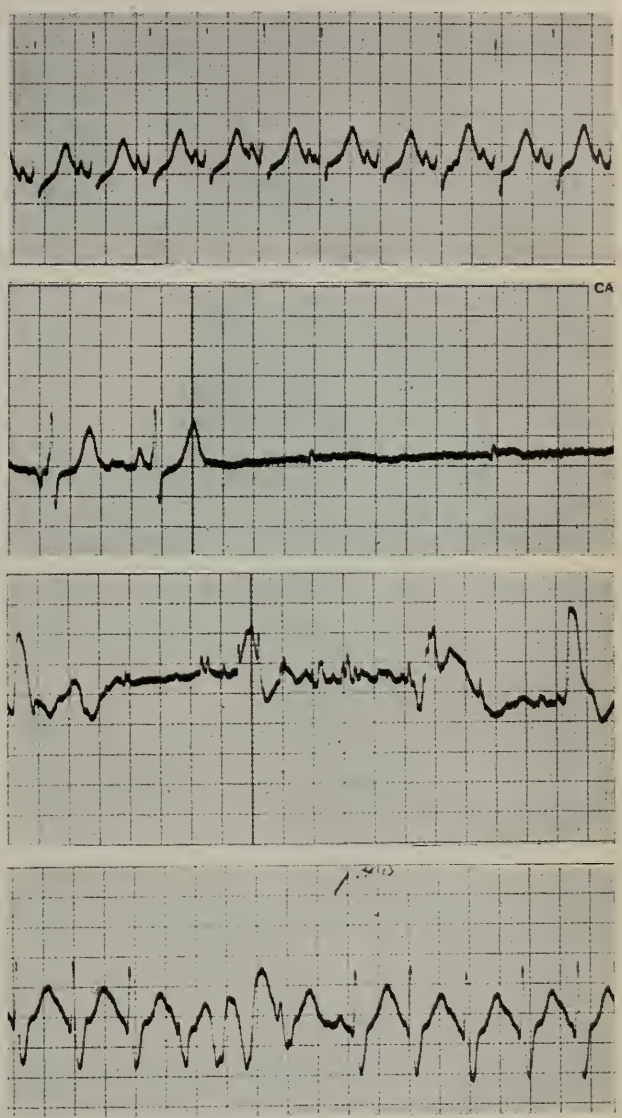


Fig. 3. Electrocardiogram taken during repair of interventricular septal defect in a child of four years. First tracing: before induced arrest. Second: at instant of arrest. Third: during resuscitation. Fourth: after resumption of normal beat.

atritiomy is satisfactory. The suturing of the cardiotomy incision is begun as soon as the aortic clamp is removed, and usually a good heart beat is present by the time the incision is closed. If there is delay in the appearance of an effective beat, the final sutures in the cardiotomy incision are also delayed, so that the recuperating heart does not have to work against resistance.

A typical electrocardiographic record is shown in Figure 3.

Clinical Experiences with Induced Cardiac Arrest

Of the 121 operations in which induced cardiac arrest has been used, seventy-seven were for the repair of ventricular septal defects in seventy-

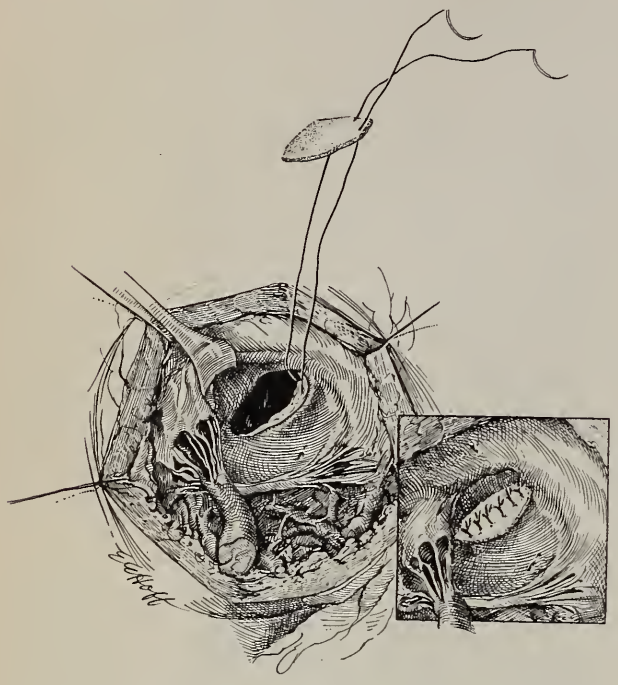


Fig. 4. Diagram of method of suture of interventricular septal defect. Sutures are carefully placed through fibrous tissue, and tied over a pledget of Ivalon sponge.

six patients (one patient had a second operation for the repair of a recurrence of the defect). The technical details of these operations have been reported in several articles in surgical journals.[6-9] Induced cardiac arrest has been especially valuable in the repair of ventricular septal defects. In the perfectly dry and quiet field, the sutures can be placed with great accuracy (Fig. 4).

Restoration of the heart beat has not been a problem in any of the patients. Ventricular fibrillation has occurred infrequently (about 5 per cent incidence), and it has always been converted with one electrical countershock.

The total mortality in the seventy-seven operations for the repair of interventricular septal defect has been 32 per cent (twenty-four cases). There were three deaths in thirty-two patients over the age of three years, and one of these was atypical, with marked underdevelopment of the right ventrical.

Induced cardiac arrest was used in a miscellaneous group of forty-four cases. This list included eight instances of complicated interatrial septal defects of the type commonly called atrioventricularis communis. All but one of these survived the immediate operative procedure, but there were two late deaths with evidence of recurrence of the defect. A prosthesis should have been used in these cases which developed recurrence.

Successful operations have been carried out for the removal of a myxoma of the right auricle, the excision of isolated infundibular stenosis of the right ventricle, anomalous insertion of the veins of the right lung without interatrial septal defect, and the repair of triatrial heart (heart with two left atria and one right atrium).

Operations for the cure of aortic stenosis, mitral insufficiency, and the excision of aneurysms of the arch of the aorta have been done with induced cardiac arrest, but with far less encouraging results, mainly due to the hopeless type of pathologic states encountered.

Summary

Induced cardiac arrest is a valuable adjunct to extracorporeal oxygenation in intracardiac operations. The cardioplegic drug acetylcholine was shown to be very efficient in the experimental laboratory, and it has been used in 121 human operations with satisfaction.

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Some Aspects of Rheumatic Fever

By Donald E. Cassels, M.D.
Chicago, Illinois

SINCE THE clinical manifestations and the treatment of rheumatic fever are fairly well standardized at the present time, it seems more rewarding to discuss some of the broader aspects of rheumatic fever, especially those related to the diagnosis and the incidence of the disease.

Considerable emphasis has been placed on establishing criteria for the diagnosis of rheumatic fever. Not so much emphasis has been placed upon establishing criteria for non-rheumatic signs or symptoms which are usually identifiable and which are commonly confused with the rheumatic fever syndrome. This association of historical, physical, and laboratory findings which alone or in combination simulate manifestations of rheumatic fever can be called the "pseudo-rheumatic syndrome." This is more common than rheumatic fever itself and consequently if this loose association of events can be identified, rehabilitation is simple and prompt and the stigma of disease is promptly removed from the patient.

There are five aspects of the non-rheumatic or pseudo-rheumatic syndrome:

(1) Fever or rather a temperature of 99 to 100 degree Fahrenheit which is normal for young children. It is very common to have a physician see a patient who is ill with a febrile illness and when asked how long a child should stay in bed to answer that he should stay in bed until the temperature becomes normal. For the first time in the child's life, his temperature is then taken regularly every day and it is discovered that it rises to 99° or over every afternoon. This is not fever but the normal temperature of an active young child.

(2) If this temperature range is then associated with leg pain, the question of rheumatic fever is often raised. The typical non-rheumatic pains are nocturnal, they occur behind the knees and in the muscles of the leg, they almost never occur in the arm and the pain usually occurs after the child goes to bed and often is severe enough to awaken him from a sleep. These pains in the legs disappear with massage, with heat or with an aspirin tablet. They are very typical of the pseudo-rheumatic syndrome and are quite different from the usual rheumatic pains which occur during the day and are increased by exercise. The actual explanation of these nocturnal leg pains is not clear but it would seem likely that they are minor cramps and reaction to excess muscle strain.

(3) If in addition to the mild elevation of temperature and leg pain a cardiac murmur is heard, the diagnosis of rheumatic fever is entertained even more seriously. The innocent or functional heart murmurs which occur so frequently in children must be definitely ruled out before the diagnosis of rheumatic heart disease can be entertained. These functional heart murmurs are almost always readily identifiable in the child and will be discussed in more detail.

(4) Non-choreic fidgets and tics are so common in children that they must be considered as part of any young child's activities. However, an active squirming disinterested child in school is frequently labeled as "nervous" and the next step is to raise the question of the presence of Sydenham's chorea. Choreic movements are so non-repetitive and so characteristic that repetitive facial grimaces or tics are not easily confused, although it is perfectly true that the fidgety child may also have chorea and consequently the disease may be ignored for sometime.

(5) The pseudo-rheumatic syndrome is completed by borderline laboratory abnormalities. These are abnormalities in terms of elevation of the white blood count, or the sedimentation rate, and borderline abnormalities of the electrocardiogram. The normal values in these three categories, which are commonly used to substantiate the diagnosis of rheumatic fever, are not as rigid in children as they are in adults. For instance, the white blood count rises much more readily in children, and the sedimentation rate is elevated much more easily. The values of the sedimenta-

Dr. Cassels is Professor of Pediatrics at the University of Chicago.

Presented at the heart and rheumatic fever block supported by the Michigan Heart Association, at the Michigan Clinical Institute, Detroit, March, 1957.

tion rate based in general on the basis of finding in adults are not readily applicable to children and values of the sedimentation rate up to 25 mm. per hour are not remarkable in children and cannot, as isolated findings, be considered as representing chronic infection. Where serial determinations are available the criteria can be more rigid. However, isolated determinations have to be interpreted with some caution, usually erring on the side of being liberal. In medicine as in law the patient is innocent until proven guilty.

The murmurs of rheumatic heart disease are usually identifiable and are quite different from the functional murmurs so commonly heard in childhood. There are simple rules which are readily applicable and which have only a few exceptions. (1) Isolated apical murmurs in children either systolic or diastolic are rheumatic in origin until proven otherwise. (2) Murmurs at the base in the first, second or third interspaces either on the right or left are non-rheumatic when they occur alone. (3) The exception is the murmur of aortic regurgitation which is diagnostic even in the absence of auxiliary peripheral signs. There are very few exceptions to these rules and it is difficult in a child to establish the diagnosis of aortic stenosis which has occurred on a rheumatic basis.

The most difficult of the childhood murmurs, which I have called an "undiagnosed murmur," is a systolic murmur of about Grade II intensity heard along the left sternal border from the second left interspace to or beyond the apex. There is no point of maximum intensity and no change in character with position or manipulation of the thorax. In seventeen patients with this murmur followed for about five years or more, the murmur became localized at the second left interspace in fifteen and the murmur became localized at the apex in two patients.

No patient developed rheumatic signs or symptoms. This complex and difficult-to-diagnosis murmur is then almost surely non-rheumatic in origin. Only in a small percentage of patients will this murmur localize at the apex and thus, by the simple clinical rules, be considered as representing rheumatic heart disease.

Sometimes cardiac murmurs can be manipulated and changed so that they are either augmented in intensity and can be considered as representing organic heart disease or become so lessened in intensity (sometimes to the point of disappearing completely) that they can be considered as non-organic in origin. Especially in young children with a cartilaginous thorax which is easily movable, compression of the precordial area will sometime change the murmur rather remarkably. This is a useful procedure as part of a routine examination of the heart.

The position and areas of maximum intensity of cardiac murmurs in a child may be described as follows: Area 1 over the anterior fontanelle applies only to infants and can be ignored. Area 2 about at the mastoid process is a common place for systolic murmurs of considerable intensity and these murmurs occurring in normal children should not be confused with the real murmur of an arteriovenous fistula which can occur in the same area. Area 3 represents about the point of the jugular bulb, the point of common venous hum which is present at one time or another in most normal children.

This murmur is frequently sufficiently loud that it radiates below the clavicle and is heard as a systolic murmur in the first and second interspace on the right and also the first and second interspace on the left. Some substantiation of this point of view is found by a simple maneuver. If the precordial murmur disappears when the venous hum is obliterated by pressure, it seems reasonable that there is some relation between these two murmurs. This is the common murmur of childhood and this manipulation, commonly, almost or completely obliterates the murmur maximum in the second and third left interspace. If this maneuver is successful in reducing the precordial murmur it is argued that the precordial murmur is extracardiac in origin and is not related to any organic disease.

A separate and different systolic murmur is sometimes heard above the clavicle, also, especially in the right super clavicular area. This is systolic alone, it changes less in maneuver, and is thought to arise as in arterial murmur. Sometimes this changes with the manipulation of the arm and the clavicle and most likely arises at the point of branching of the great vessels in the neck either or as the carotid arises from the innominate at peculiar angles.

Area 6 represents the murmur mentioned previously as an undiagnosed murmur, a short systolic murmur not accompanied by any change of heart sounds which is heard in the second left interspace and is heard without change in in-

tensity of quality to the apex. Since there is no localization and since it changes very little with maneuvers of the neck, the head, or the thorax, no indication of the point of origin can be obtained. This murmur in the course of time, is almost always localized at the second left interspace making it non-rheumatic in origin, unless isolated pulmonary stenosis acquired on a rheumatic basis, should be considered. This is not considered likely, however. Area 7 is, of course, a common site of murmurs of rheumatic origin and a murmur maximum at the apex is rheumatic in origin unless it is definite that some other etiology can be ascribed to it.

The common functional murmurs of childhood are thought to be recognizable in most instances and the residue of murmurs heard are either those of congenital heart disease or those of rheumatic heart disease. The problem then becomes one of separating these two types, which usually is not difficult.

Using the criteria discussed, the diagnosis of 300 new patients seen at a rheumatic fever clinic of The Division of Services of Crippled Children of Illinois, was examined. The clinic is a diagnostic clinic and accepts only patients referred by a physician. The social-economic status of the referrals vary considerably and it is believed that the patients seen represent a cross section of children in the midwest. The distribution of patients by diagnosis is shown in Table I.

TABLE I. DIAGNOSIS OF 300 NEW PATIENTS

Chicago Heights Rheumatic Fever Clinic Division of Services of Crippled Children

No Disease	Undiagnosed Murmurs	Functional Murmurs	Heart Disease			Potential Heart Disease (History or Evidence of Rheumatic Fever)
			Rheum.	Cong.	Misc.	
30	17	100	36	63	5	44

About one-third of the patients referred to this children's diagnostic cardiac clinic had functional murmurs only. Most of these were murmurs heard during school or pre-school examinations although some of them were heard incidentally during medical care for some other illness. About one-third of the patients referred to the clinic had some variety of organic heart disease. Slightly less than one-quarter of the patients seen, had a history or physical findings substantiating the diagnosis of rheumatic fever or of rheumatic heart disease.

It is thought that this clinic is so representative that the figures give a very good indication of the status of children in the midwest who are under suspicion of having rheumatic fever; or who have a cardiac murmur; or who have frank organic heart disease. About 10 per cent of the referrals had no indication of disease of any kind and were seen for the purpose of making the diagnosis of no disease.

DOCTOR FEES BELOW OTHER HEALTH COSTS

A report in the *Monthly Labor Review* on medical care costs in the cost of living index notes that, in the past twenty years, hospital costs have risen sharply in contrast to physicians' fees. The article by a Bureau of Labor Statistics employe lists these increases between 1936 and 1956: hospital room rates, 264.8 per cent; dentists' fees, 82.1 per cent; general practitioners' fees 72.8 per cent, and surgeons' fees, 59.5 per cent. In the same period, medical care costs generally have lagged behind costs for food, personal care other than medical and clothing. The report makes this observation: 'With the higher level of living attained in 1950, relative expenditures for medical care tended to increase as incomes increased, as is usually true of items considered as "necessities" in the family budget. The fact that this pattern has begun to appear in the spending of workers' families indicates the high order of importance they place on medical care. . . .' "—*Insurance Economics Surveys,* November, 1957.

Acute Myocardial Infarction

Pain Clues Often Overlooked

By Robert H. Berman, M.D.
Detroit, Michigan

A LARGE percentage of the cases of acute myocardial infarction present a classical, almost pathognomonic, pain syndrome. This syndrome, as most physicians know, consists of acute severe to excruciating anterior diffuse retrosternal or left chest pain, squeezing, pressing or crushing in character, with or without radiation from the chest, lasting an hour to many hours, with the patient moving or twisting about in anguish. However, an equally large group of cases presents a non-classical picture. This latter group conveys no pathognomonic picture. Since many other diseases give symptoms similar to this latter group, the diagnosis of acute myocardial infarction is often missed or made belatedly.

The following cases exemplify the types of pain involvement which are often overlooked as clues to acute myocardial infarction.

Case Reports

Case 1.—This patient, a fifty-five-year-old scientist, phoned and stated that for the past few days he had had a burning sensation in his mid-chest and epigastrium. He asserted emphatically that his symptoms were not painful, only burning and distressing. He was sure that they were due to some gastrointestinal disturbance. He had continued his work without limitation. There was no prior history of cardiac involvement nor of previous hypertension or diabetes. A routine electrocardiogram a year ago was normal. Examination disclosed no abnormal findings although he appeared haggard. Blood pressure was 120/80. His previous pressure had been 145/90. The difference was small but suggestive. An electrocardiogram, however, revealed changes consistent with a posterolateral and inferior myocardial infarction (Fig. 1). He was hospitalized and made an uneventful recovery.

Comment.—This first case illustrates the fact that often, in acute myocardial infarction, the patient does not use the term "pain"; and in fact will often voluntarily state that he has no pain.[1] It illustrates also the fact that often the pain or sensation complained of is distressing but not agonizing, and the patient is able to pursue his usual activities. If his discomfort lasts only an hour or two, he may not seek medical advice. His infarction may only be revealed at some later date if residual electrocardiographic changes persist.[2] This case also points out a well-known fact that pain in acute myocardial infarction is often described by patients in many other terms.[1,3] The most frequent of these are burning, indigestion, heaviness, weakness, fullness, tightness, aching, numbness and tingling. "Inability to breathe" is a frequent phrase. Questioning will usually elicit the fact that there is not true dyspnea unless left ventricular failure accompanies the infarction.

Almost every person today who experiences the classical pain syndrome is aware that he may have a heart attack and at once consults a physician. However, when he experiences the other sensations that have been enumerated, he usually is not aware of the fact that these sensations may be due to heart disease.

Case 2.—A fifty-three-year-old attorney had had two previous infarctions. Since the last one, he had been seen numerous times because of episodes of acute coronary insufficiency. These usually consisted of pressing and burning mid-sternal pain radiating to the left shoulder. The pain was of moderate intensity and was always relieved in one-half to one hour by rest and sedation. His wife phoned one day stating that he was having a similar attack, but that the pain seemed to be worse than usual. When seen at home an hour after the episode had started, pain was still present in undiminished degree. The patient appeared uncomfortable but was quiet. Examination was negative. Blood pressure was 140/90, his usual pressure. In view of the fact that the attack was more severe than usual and that the patient seemed weaker than in previous episodes, an infarction rather than another acute coronary insufficiency was considered probable. He was therefore hospitalized. Initial electrocardiogram showed an acute injury ST in aVf, and a repeat the next day revealed a QaVf compatible with inferior myocardial infarction. Serum glutamic oxalacetic transaminase test on admission was eight units, the second day 260 units, the third day 60 units. The diagnosis might have been inferred from these serial transaminase changes alone.[5] Electrocardiogram on the third day revealed auricular ventricular block with Wenckebach syndrome. He made a

good recovery. He was continued on anticoagulants after discharge (Fig. 2).

Comment.—This case demonstrates the need of carefully watching the patient with frequent acute coronary insufficiency episodes so as to diagnose the acute myocardial infarction that often replaces them. Changes in the acute coronary insufficiency symptoms that are often significant clues are: variations in the distribution of pain, an increase in the intensity or duration of pain, the occurrence of arrhythmias or cardiac failure, sweating, nausea and vomiting if they have not occurred before, and a drop in blood pressure. These changes apply to angina pectoris as well as acute coronary insufficiency.[4] It is true that many cases of angina pectoris or acute coronary insufficiency will present these changes in their attacks without acute myocardial infarction, but these changes should alert the physician. He should not be disturbed if he is in error occasionally (or even frequently) in clinically suspecting changes as due to acute myocardial infarction. Fortunately today, one has additional help in eliminating the suspicion of acute myocardial infarction by the use of serial serum glutamic oxalacetic transminase tests.[5,6] These tests are especially helpful when, as often happens, the electrocardiograms are indecisive the first few days.

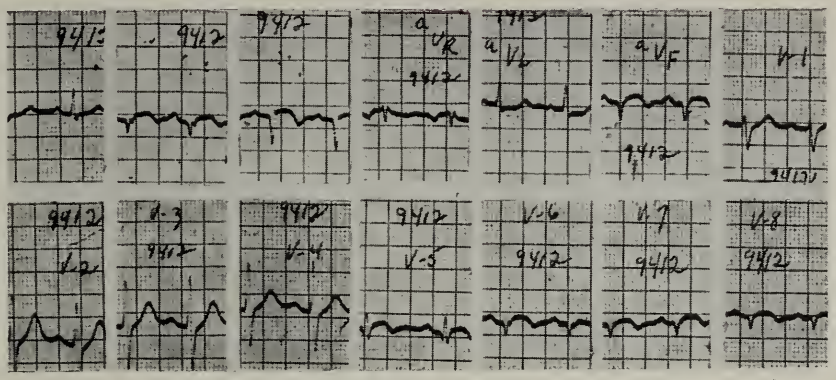


Fig. 1.

Case 3.—A fifty-nine-year-old executive, while being treated by his dentist, suddenly developed severe persistent pain in both arms while in the dental chair. He was seen in the office and a diagnosis of possible acute myocardial infarction was made. An electrocardiogram the next day manifested the changes of an acute anterior infarction. The pain on the second day had changed to the retrosternal area and persisted almost the entire day. He expired on the second day. A history of attacks of mild precordial pain for the past few years was later obtained from his family physician.

Comment.—This case portrays the fact that the pain of acute myocardial infarction may be absent from the anterior chest and localized in other areas.[7,8] Cases are seen frequently where the only pain is in one arm, both arms, or only the shoulder or other areas of the arms; or in the neck, gums, jaw or teeth; or in the interscapular area. Very often the pain may be limited to the epigastrium. In rarer cases it may be limited to the ears. This peripheral involvement may be in any combination. It may be replaced by anterior chest pain. Epigastric pain, since it so often appears in acute myocardial infarction with nausea and vomiting, often beguiles the physician into centering his attention on gastrointestinal involvement. In one of the very early reports on myocardial infarction, epigastric pain was noted as the only symptom in a majority of the cases.[9] Gum, jaw and tooth pain often impel the patient to see a dentist before he sees a physician. Localized arm or shoulder pains often mislead the

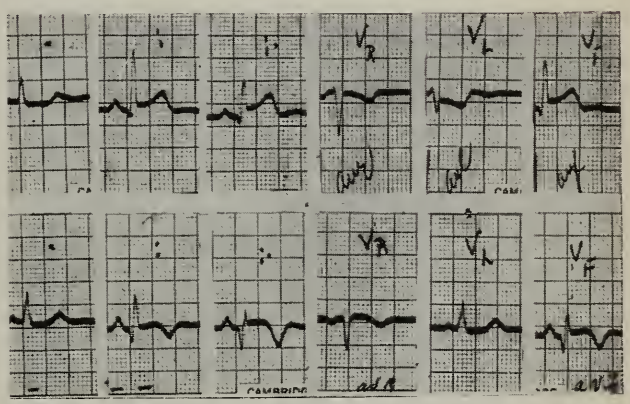


Fig. 2. (*Upper row*) Limb leads on first day. (*Lower row*) Limb leads on second day.

physician by suggesting arthritis or bursitis. Pain in these areas noted in patients in the coronary age range should be a clue to the physician to include acute myocardial infarction in his differential diagnosis.

Case 4.—An eighty-six-year-old man, retired, was seen at his home in a comatose state. No definite immediate story could be obtained. except a questionable one of epigastric pain before he became comatose. Though he was unable to respond to questions, he kept rubbing the lower sternal area. Examination was negative except for a blood pressure of 60/0.

The diagnosis of acute myocardial infarction seemed likely, though many other diagnoses had to be considered. An immediate electrocardiogram at the hospital showed a right bundle branch block, slight auricular ventricular block, and changes compatible with acute anterior septal infarction. His serum glutamic oxalacetic transaminase test was verbally reported as over 3000 units, an unusually high level. The written report was apparently lost. Levophed temporarily restored his blood pressure to a satisfactorily level. After about twelve hours, Levophed and other drugs became ineffectual. Death ensued the same evening. Autopsy revealed an acute infarction involving the septal and anteroseptal areas of the left ventricle.

Comment.—This case demonstrates the problem of hidden or obscured pain. Probably nearly every patient with shock or coma due to acute myocardial infarction has had pain or sensation-substitutes. In many cases pain symptoms could doubtless be elicited if the patient's sensorium in shock were clear.[10] Many have reported cases of acute myocardial infarction without pain.[11,12] Doubtless a few cases occur. It is probable, however, that in many cases of acute myocardial infarction where there seems to have been no pain, the various sensations that represent pain have been overlooked. In shock or coma the absence of any pain history does not eliminate acute myocardial infarction as a cause of the shock or coma.

One must also keep in mind the fact that an acute myocardial infarction may, conversely, be caused by the effects of shock. The electrocardiogram and serum glutamic oxalacetic transaminase test may reveal or confirm acute myocardial infarction in shock or coma.

Summary

1. Some clues which should evoke the consideration of acute myocardial infarction in the differential diagnosis have been discussed. These clues include chest sensations which are not described as pain by the patient; changes in the usual pain pattern of the patient with acute coronary insufficiency; pains limited to areas other than the anterior chest.

2. Pains or equivalent sensations due to acute myocardial infarction are often obscured by shock or coma. If the etiologic diagnosis is not certain, the patient in shock or coma, who is in the coronary age range, should have serial electrocardiograms and serum glutamic oxalacetic transaminase tests.

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Auricular Infarction

By Jack M. Kaufman, M.D.,
G. Timmis, M.D., and J. Forest, M.D.
Detroit, Michigan

INVOLVEMENT of the auricular myocardium by infarction was generally thought to be exceedingly uncommon until 1942. At that time, Cushing and his associates reported their observation of thirty-one instances in a series of 182 cases of myocardial infarction.[1] This was the first work to suggest the more probable frequency of this disease. Although the electrocardiographic changes incident to auricular infarction were initially described in 1939,[2] it was seventeen years later (1946) when the first reported attempt towards an ante-mortem diagnosis appeared in the literature.[3] This case, while showing characteristic electrocardiographic changes (since found to be classically demonstrable of auricular infarction) did not substantiate this diagnosis by postmortem studies. Hellerstein, in 1948, was credited as having made the first diagnosis of auricular infarction to be proved by autopsy.[4] Again, in 1954, Wilson and Knudson correctly diagnosed an auricular infarct ante mortem.[5]

The incidence of infarction of the auricles (either as an isolated finding or concomittant with ventricular infarction) varies, according to several larger series reported, from less than 1 per cent to 24.5 per cent.[1,6,7,8] The average seems to be in the vicinity of Cushing's reported 17 per cent. It would seem, then, that the actual occurrence of auricular infarction, either alone or as a complication of ventricular infarction, is probably fairly common. In the literature available to us, however, we have been able to find only two authenticated cases correctly diagnosed before death. Our purpose in this paper is to present another case the diagnosis of which was established ante mortem and confirmed at autopsy.

Case Report

H. N. (A-222952), a sixty-two-year-old white man was admitted to Harper Hospital on July 27, 1956 complaining of a sudden onset of nausea and vomiting three hours prior to admission, followed by left anterior chest pain which radiated into the left shoulder and arm. The pain persisted in spite of nitroglycerin therapy. On admission, however, he obtained considerable relief from parenteral morphine and atropine. He claimed to have had three similar episodes eight years ago, but apparently had not been seen by a physician at that time. Past history and review of symptoms was otherwise noncontributory. He denied previous hypertension.

Physical examination revealed an elderly man in acute distress with chest pain. No cyanosis or pallor was observed. Blood pressure was 100/60; pulse, 46; respiration, 16 per minute; and temperature, 100.8° F. The head, eyes, ears, nose and throat were normal as was the neck. The chest was symmetric. Lungs were clear to percussion and auscultation. No rales were audible. The borders of cardiac dullness were within normal limits. No thrills, rubs, abnormal pulsations, or murmurs were discovered. The heart sounds, however, were quite distant. While the rhythm was regular, a rate of 46 per minute was found with varying intensity of S 1, at the apex. Results of examination of the abdomen, back, rectum, genitalia, extremities, and skin were considered negative. Neurologic examination was uninformative.

The white blood count on admission was 16,500 per cu. mm. with 76 per cent neutrophils. Sedimentation rate (Westegren) was 28 mm. per hour. Fasting blood sugar was 116 mgm. per cent; and non-protein nitrogen, 48.3 mgm. per cent. Urinalysis revealed a 4+ albuminuria with a few hyaline casts per high powered field.

The admission electrocardiogram (July 27, 1956) was interpreted as follows: Complete heart block, acute auricular myocardial infarction, and acute posterior myocardial infarction (Fig. 1). On the evening of admission, the patient converted to a normal sinus rhythm. Electrocardiograms on July 28, 1956 and July 29, 1956 showed progressive changes of acute posterior infarction in the presence of a normal sinus rhythm and occasional ventricular premature beats. On July 30, second degree heart block and Wenkebach's phenomenon with trigeminy was observed. Moreover, at the end of the tracing, beginning auricular fibrillation was recorded (Fig. 2). By July 31, the rhythm was again found to be basically regular with frequent supraventricular extrasystoles and a wandering pacemaker. On the following day, no abnormality of rhythm was detected.

Although the patient's hospital course had been relatively uneventful, on the sixth hospital day he suddenly cried out in pain and was found to be in shock, pulseless, and cyanotic. A few minutes later, he was pronounced dead.

Postmortem examination was performed by Dr. Plinn Morse, chief of the pathology service of Harper Hospital. He reported the heart to weigh 360 grams. The posterior aspect of the heart was diffusely covered with

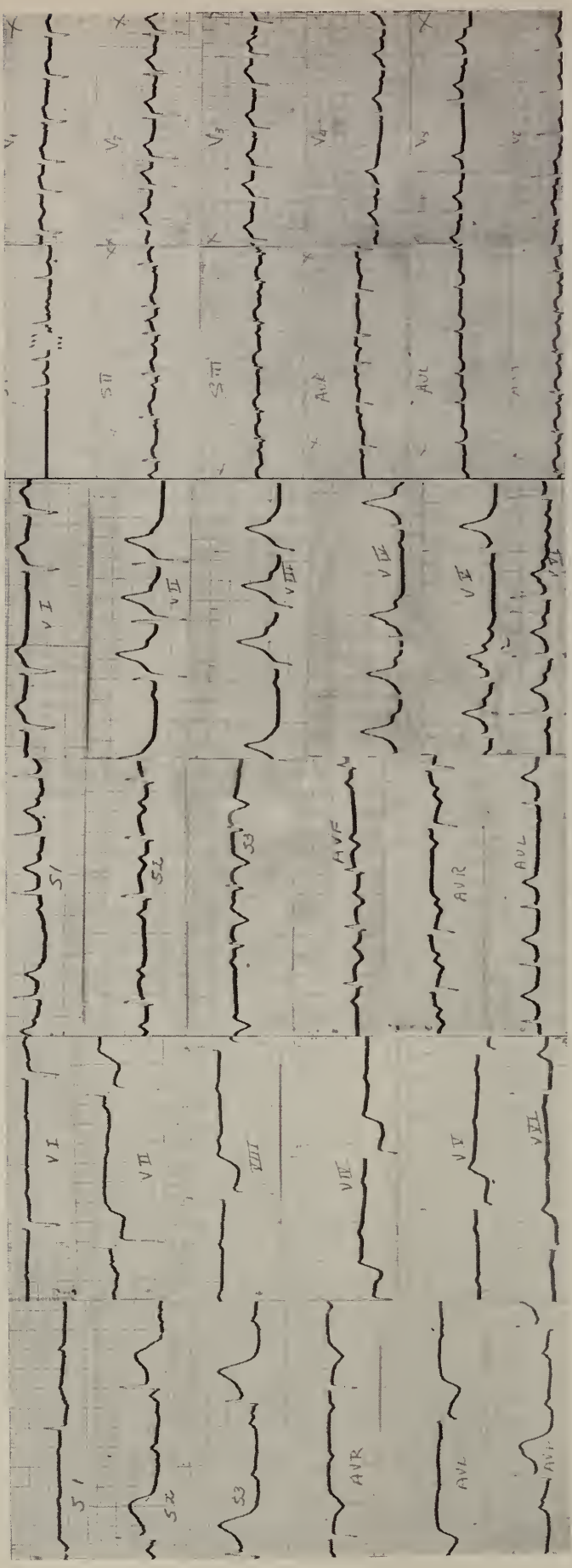


Fig. 1. July 27, 1956: Complete AV block, acute auricular infarction; and acute posterior myocardial infarction. Auricular rate 100; ventricular rate 40. P waves independent of QRS complexes with elevated PTA segments and upright T waves having an elevated take-off in 2, 3, and AVF_2. Depressed in 1, AVL, V_3, and V_6.

Fig. 2. July 30, 1956: Second degree heart block with Wenkebach's phenomenon, and resultant trigeminy. (4 auricular to 3 ventricular beats). At end of tracing, auricular fibrillation beginnings. P waves and PTA segment now normal. No PTA waves visible. Note the waxing phase of posterior myocardial infarction.

Fig. 3. July 31, 1956: Wandering pacemaker with frequent supraventricular extrasystoles. No demonstrable abnormalities of auricular repolorization. Further evolution of posterior infarction.

fresh fibrinous adhesions. The atrioventricular sulcus, and left atrium, were intensely discolored with hemorrhagic infiltration and were found to feel much softer than the remainder of the myocardium. The endocardium was normal except for that of the left ventricle which was involved by a large mural thrombus. Both major coronary arteries were severly atherosclerotic, revealing several recent thrombi in the right coronary artery.



Fig. 4. Auricular myocardium and endocardium. Note disrupted pattern of auricular myocardial structure. Note also the subendocardial "spared zone" of Soderstrom.

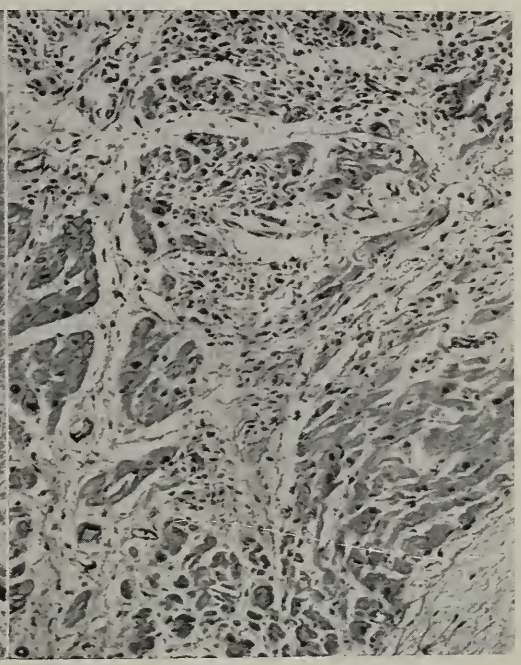


Fig. 5. Infracted auricular myocardium with degeneration of myocardium, round cell infiltration and edema.

The autopsy was otherwise unremarkable except for acute congestion of the lungs, liver, spleen and kidneys. The kidneys were grossly involved with atherosclerosis.

In addition to findings typical of infarction of ventricular myocardium, microscopy revealed a recent infarction of the left posterior auricular wall. This was evidenced by absence of myocardial structure and the presence of cloudy swelling with pyknotic nuclear degeneration. The lesion was further characterized by edema and round cell infiltration primarily lymphocytic in type (Fig. 4 and 5).

Discussion

Since there is no suggestive symptom complex, the diagnosis of auricular infarction must depend on electrocardiographic evidence alone. This involves, primarily, the detection of various arrythmias which are usually transient and rapidly changing. They occur in over 75 per cent of the cases of atrial disease while only 9 per cent of the cases of "pure" ventricular infarction are so characterized.[1] The variations in the auricular mechanism include fibrillation, flutter, extrasystoles, tachycardia, sinus arrest, wandering pacemaker, and atrioventricular nodal rhythm. Disturbances in conduction are not uncommon. Any degree of heart block including Wenkebach's phenomenon may be detected. In our cases we recorded transiet complete heart block, auricular extrasystoles, auricular fibrillation, Wenkebach's phenomenon, and wandering pacemaker (Fig. 1, 2 and 3).

While Hagen insists that we must rely on the arrythymias alone, most investigators agree that deviation of the PTa segment, with or without a changing contour in the P and PTa waves, is also indicative of auricular infarction. The P and PTa waves may be broadened, slurred, notched, or a change in amplitude may be detected. Normally, the terminal portion of the PTa segment, the auricular T wave, is "buried" in the succeeding QRS complex. Therefore, to evaluate the complete cycle of auricular activity including this portion of the electrocardiogram, some delay in atrioventricular conduction or, (ideally) complete atrioventricular block must coexist.

Perhaps most significant in the diagnosis of auricular infarction is PTa segment displacement.

Gross has noticed that this segment may normally be elevated in direct proportion to the cardiac rate and to the size of the P wave, particularly when the rate exceeds ninety per minute.[10] Abramson has shown, however, in experimental animals that PTa segment displacement may also represent auricular damage.[11] Whether the PTa segment is elevated or depressed depends on the site of auricular involvement. Elevation of this segment is seen in the leads reflecting the potentials of the anterior auricular myocardium (I, AV1, and the precordial leads) when this portion of the auricles is infarcted. Moreover, there may be reciprocal depression in the posterior leads (II, III, and AVF). Conversely, in posterior auricular infarction, the PTa segment may be elevated in the posterior leads with reciprocal depression in the anterior leads.

It would seem that the right auricle and particularly the right auricular appendage have a predilection for infarction.[1,6,7,8] Since, according to Hellerstein, the right auricular appendage assumes an anterior or anterolateral position in the thorax, one would expect a predominance of electrocardiographically anterior auricular infractions. Cushing found this to be true in twenty-eight of his thirty-one cases. However, in this report, two of the three cases mentioned to have been diagnosed ante mortem, were posterior.

Electrocardiographic findings are not limited to those indicating changes in auricular activity. Associated QRS abnormalities, ST segment and T wave changes are the rule since atrial infarction usually occurs concomittantly with ventricular disease.[1,7]

Acute infarction of the auricles has more than an academic significance. A reported 80 to 84 per cent of such cases are eventually complicated by mural thrombosis.[1,6] This may be due to the involvement in a preponderant number of cases of that portion of the myocardium that harbors the most stagnant intracardiac blood; that is, the auricular appendages. This is especially true of the right appendage "honeycombed" with a greater number of trabeculations.[6] It seems inevitable that such a frequent occurrence of mural thrombi in the right auricle, would commonly result in pulmonary thromboembolism. This has been reported in as many as 24 per cent of the cases in certain series.[7]

It is conceivable that the treatment of auricular infarction might be more demanding than the treatment of myocardial infarction, in general. It is interesting to speculate on the advisability of auricular appendectomy subsequent to the acute phase of this disease. Somewhat less speculative is the mandatory and immediate institution of anticoagulation therapy upon diagnosing an acute auricular infarction. Continued post-hospital medication for anticoagulation would also be advised.

Summary

The third known case of acute auricular infarction to be correctly diagnosed ante mortem is presented. The literature is reviewed, the incidence, diagnosis, significance and treatment are discussed.

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816 David Whitney Building
Detroit 26, Michigan

Experiences in the Development of a Satisfactory Pump Oxygenator

By Roger F. Milnes, M.D., Joe D. Morris, M.D., Rients vanderWoude, M.D., Joe Burge, M.D., and Herbert Sloan, M.D.
Ann Arbor, Michigan

THE INITIAL efforts at the University of Michigan to develop an extracorporeal unit were directed toward the construction of a simple and inexpensive blood oxygenator. The successful experience of DeWall,[1] Nelson,[2] and others,[3-5] with the bubble-type oxygenator indicated that a modification of their apparatus would fulfill our requirements.

Description of Plastic Bubble Oxygenator

The model illustrated in Fig. 1 was constructed of clear lucite. This oxygenator is simple to build and it has no moving parts. The unit is a cylinder located concentrically within a larger cylinder. The inner cylinder is the oxygenating column which measures 5 cm. in diameter and 41 cm. in length. The outer cylinder, which acts as the blood reservoir, is 13 cm. in diameter and 50 cm. in length. A screw cover fits the top of the oxygenator to prevent entrance of foreign material. It is desirable to drill a hole in the center of the plastic cover so that blood may be added to the reservoir if rapid blood replacement is necessary during open cardiotomy.

Description of Propulsion Unit

The propulsion unit is a double headed Sigmamotor pump.* This pump is illustrated in Figure 2. The pumping system consists of two separate finger pumps which are driven by an explosion-proof motor. Each pumping head may be regulated by a separate speed vernier which allows accurate control of blood flow. This pump is responsible for certain measurable amounts of hemolysis but these values have not been high. For periods of one hour or less of cardiac by-pass, we believe this pump to be safe.

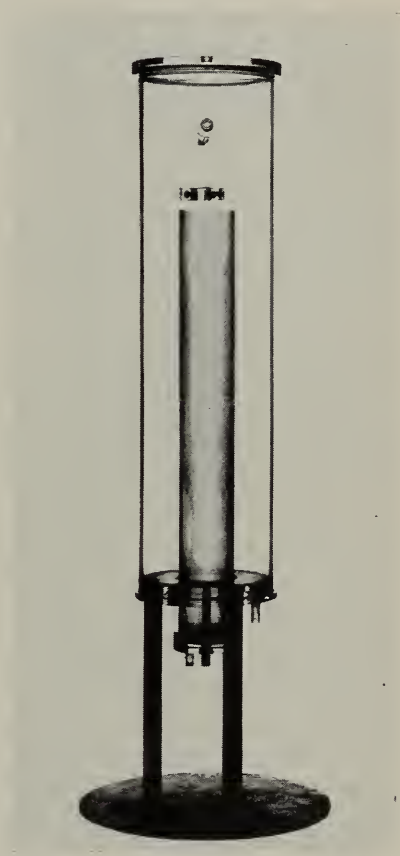


Fig. 1. Lucite oxygenator with central oxygenating column and large outer blood reservoir.

Extra-cardiac Tubing and Connectors

Polyvinal plastic tubing is used throughout the system. The ventricles or tubes that are compressed by the finger pumps are the large type constructed of flanged Silastic. The connectors and adaptors are made of nylon with smooth inner surfaces. Plastic tubing, plastic connectors, and the large Silastic ventricles are utilized primarily to minimize damage to the blood elements. All

From the Department of Surgery, University of Michigan, Ann Arbor, Michigan. This work has been aided by grants from the Horace H. Rackham School for Graduate Studies, Michigan Heart Association, The Alcoa Foundation and the D and R Fund.
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Dr. vanderWoude is a Fellow of the Michigan Heart Association. Dr. Burge is a Fellow of the National Heart Association and the United States Public Health Service.
*Sigmamotor, Inc., Middleport, New York.

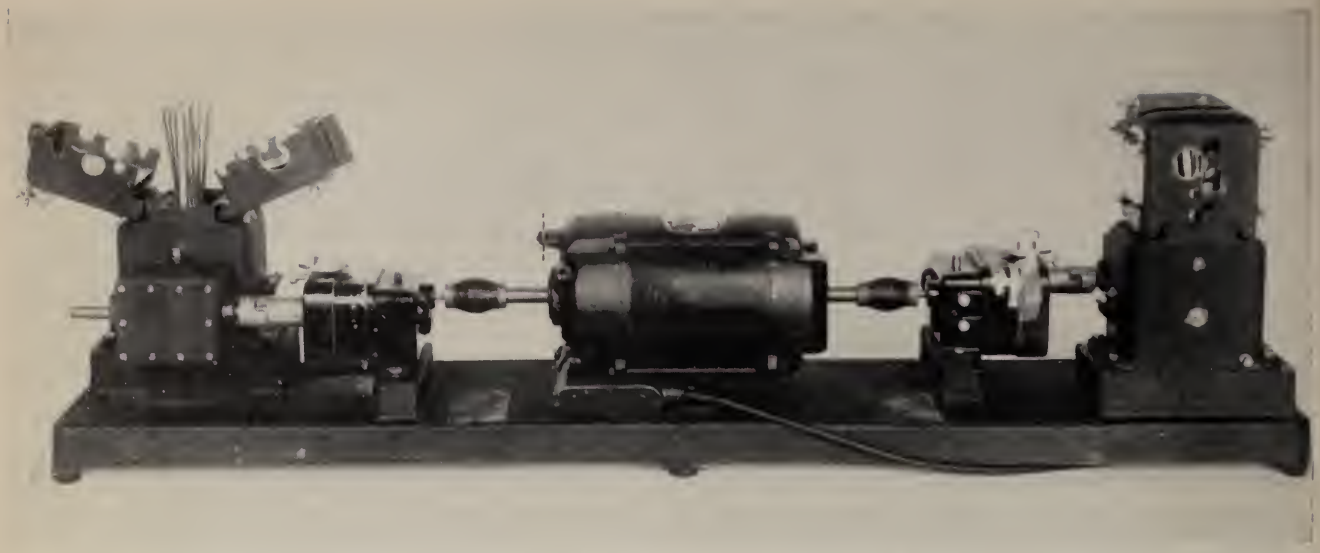


Fig. 2. Sigmamotor propulsion unit for complete cardiac by-pass. Note open finger compression head at left.

connectors lock with a screw nut and cannot come apart.

Operation of the Bubble Oxygenator

The operation of this oxygenator is not difficult. Oxygen is delivered to the inner column at its base through a lucite tube which has twenty holes bored in its distal 3 centimeters. Holes with an inside diameter of a No. 18 needle have been most satisfactory. The rate that oxygen is delivered to the blood is determined by the flow rate required by the patient, by the size of the oxygenating column, and the size of the holes through which the oxygen is delivered. Nelson has determined that approximately one liter of oxygen per 100 ml. of blood flow per kilo is necessary to obtain satisfactory oxygen saturation. Generally we have delivered oxygen to the oxygenator at rates similar to those suggested by Nelson.

Venous blood enters the bottom of the inner column through a connector ¼ in. in diameter. As the blood is pumped into the inner cylinder, it encounters and is mixed with rising bubbles of oxygen which are readily taken up by the desaturated hemoglobin. When the blood reaches the top of the inner column it spills over into the outer reservoir. The bubbles which spill over with the blood into the outer cylinder are mostly eliminated in their descent by the antifoam which covers the inside of the oxygenator. A recent addition of a plastic scouring sponge as a cap on the inner column has eliminated any bubbles from the outer reservoir. This same plastic sponge has also increased the oxygenating capacity of the inner column by retaining the blood for a longer time in an oxygen-rich atmosphere.

Laboratory Studies Following Cardiac By-pass

The effect of pump and oxygenator on the blood elements and blood chemistry must be known and taken into account. The degree of hemolysis in our experimental animals and patients has been well below the 300 mgm. per cent considered harmful. Animals in the laboratory sustaining cardiac by-pass for 30 minutes showed a mean hemolysis of 40 mgm. per cent and for perfusions lasting up to one hour, values have not exceeded 100 mgm. per cent.

Bleeding and clotting times studied before and two hours after perfusion have been normal. Platelet counts show a decrease from normal values but not to a dangerous degree. A normal platelet count of 300,000 in the normal subject may decrease to 200,000. DeWall[6] has studied the platelet response to perfusion and has noted changes similar to those we have found. The white counts following perfusion also show a temporary decrease.

Studies on the life of a red cell reveal it to be markedly shortened after perfusion with various types of oxygenators.[7] It is important therefore to follow hemoglobin levels closely in the postoperative period.

A predictable drop in the arterial CO_2 content is noted after cardiac by-pass and studies of the pH concentration reveal little change from normal. It should be emphasized that blood pH values alone result in an incomplete picture as

they may be normal or on the alkaline side of normal despite a gain of fixed acids in the blood. This rise in free acids in the blood is noted by a study of lactic acid which is increased after perfusion.[6] It is of considerable interest that these blood gas and acid base changes are well tolerated by laboratory animals and patients.

Control of Postoperative Hemorrhage

In our experience, the most important requisite in the prevention of postperfusion hemorrhage and restoration of normal clotting mechanism is complete reversal of heparin with protamine sulfate. This is accomplished by administering protamine in the same dosage as used for heparin. We have not encountered bleeding difficulties when heparin has been neutralized in this manner, but we also recognize the importance and perhaps greater accuracy of the control of bleeding by the use of protamine sulfate titers.[5] Although postoperatively, fresh blood seems effective in preventing bleeding, it has not been found necessary since added experience has been gained in the administration of protamine. Prior to perfusion the dosage of heparin is 1.5 mgm. per kilo of weight. Blood used to prime the oxygenator is prepared with 18 mgm. of heparin per 500 ml. of blood.

Suggestions for Successful Use of the Bubble Oxygenator

The successful use of this oxygenating system demands close attention to certain details which became apparent as our experience increased with its use in the laboratory. We believe that most satisfactory results in the laboratory and clinical use depend on blood flow rates in the range of 50 to 70 ml. per minute per kilo of body weight. Our earlier experience with the low azygos flow rates[9] of 15 to 30 ml. per minute per kilo were less encouraging because of the narrow margin of safety afforded to brain tissue. Kaplan[10] has recently demonstrated that the reduction in oxygen availability associated with extremely low blood flow rates may approach levels only slightly in excess of those resulting in brain damage.

Another important feature in the successful use of the bubble oxygenator is the constant maintenance of a large blood reservoir in the outer collecting column. No less than 600 ml. of blood should be maintained in the reservoir during a perfusion, and it is our custom to keep a level of 1,000 ml. during by-pass procedures. Such a large blood reservoir prevents air bubbles and fibrin clots entering the cerebral vessel. The air bubbles which may pass into the outer reservoir are always near the surface and in the presence of a large reservoir cannot be drawn into the arterial circuit. Any fibrin emboli which may be formed will remain on the surface of the blood in the reservoir.

Additional safety devices which have been added to the apparatus are a blood filter and a plastic bubble trap. The bubble trap is placed between the propulsion unit and arterial catheter while the filter screen is positioned in the outer blood reservoir.

Coronary blood encountered in open heart surgery may amount to an unexpectedly large volume which must be removed at the time of cardiotomy. Although in our method the coronary blood is not returned to the oxygenator, this could easily be done by the use of another Sigmamotor pump which would recover the coronary blood and return it to the venous side of the oxygenator. If controlled asystole[11] is used, there is no coronary flow to cause concern.

Mechanical and technical errors are especially to be avoided. A check for loose connectors and tubing must always be carefully made before each perfusion and new polyvinal tubing is used for each procedure.

The oxygenator is carefully cleaned and examined for any residual blood or fibrin clots before final sterilization. Although we have not experienced pyrogenic reaction following sterilization of the plastic oxygenator, this has been noted by others.

Technical errors are concerned with proper placement of the arterial and venous catheters. Both caval catheters are inserted through the atrial appendage or atrial wall. These catheters must not be so soft as to be occluded by pumping suction or too large to prevent atrial filling before the cava are occluded during perfusion. The arterial catheter is inserted into the femoral artery. It is important in handling this vessel to avoid spasm as this will prevent or limit insertion of the desired size catheter into the vessel lumen. The left subclavian artery may also serve as an entrance for the arterial catheter.

Blood prepared by the blood bank should be filtered before it is pumped into the oxygenator. Improper preparation of donor blood may result

in clot formation that would impede or completely prevent forward flow in the outflow tubing.

Air may pass through a septal defect into a left heart chamber during open cardiotomy. This difficult problem has been partially solved by various means. A catheter may be inserted into the left ventricle to afford an avenue for trapped air to escape. A large volume of saline poured into the heart chamber prior to closure of a septal defect will force air to rise from the chambers and thus prevent air emboli passing to the coronaries or brain. Use of the Trendelenburg position at operation may prevent the passage of air into the aorta if air has been trapped in the left ventricle.

Laboratory and Clinical Experience with the Bubble Oxygenator

Our experience with successful perfusions lasting up to one hour using the plastic oxygenator in the laboratory[12] assured us that it could be used safely clinically. Consecutive survivals in twenty dogs encouraged us to attempt the repair of human septal defects.

We have treated three patients with uncomplicated intra-atrial septal defects of the septum secundum type. No complications or ill effects have been attributable to the oxygenator. Two patients have had successful repair of atrial defects and their recovery has been uncomplicated. The other patient did not survive because of a technical error in placement of the superior vena cava catheter. As the atrium was being opened the catheter slipped out of the vena cava and a fatal cerebral air embolus occurred.

At present, we are endeavoring to improve the efficiency of the pump oxygenator to afford greater length of safe operating time with minimal aberration in the patients physiology. We have found that controlling asystole with a solution of potassium citrate and magnesium sulfate[13] is very successful in the laboratory for lesions in the ventricular septum and lesions of the aortic valve. One successful clinical case in whom ventricular septal defect was closed during controlled asystole for twenty minutes encourages our further efforts with this method.

Summary

The brief history of cardiac by-pass has been dominated by the desire to make the procedure as uncomplicated as possible. The bubble oxygenator is a simple extracorporeal shunt. The plastic oxygenator and Sigmamotor pump now in use at the University of Michigan meet the requirements of simple construction and ease of operation. This oxygenator will provide at least forty minutes of safe operating time to the surgeon performing open cardiotomy.

The satisfactory use of this bubble oxygenator depends upon a large blood reservoir and the recognition of the time limits beyond which damage to blood elements occur. Although mechanical failure of the oxygenator is eliminated by its simplified construction, problems related to tubing, connectors and vascular catheters must be constantly avoided. Air bubbles and fibrin emboli resulting from the bubbling of oxygen through blood are the chief dangers to the patient when the bubble type oxygenator is used. The large blood reservoir is the important barrier which prevents brain injury from embolic fibrin or air.

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Mechanical Respiration during Anesthesia for Surgery

By Raymond D. Sphire, M.D.
and Henry J. Zukowski, M.D.
Detroit, Michigan

THE FOREMOST problem confronting the anesthesiologist, today, is the maintenance of normal respiratory physiology in the anesthetized patient.

Some degree of pulmonary hypoventilation is the consequence of practically every anesthesia regardless of the agent or the technique used to produce it. Add to this, the infringement on the patient's respiration stemming from the exigency of surgery itself or the handicap of complicating cardio-respiratory disease, and the problem is readily apparent.

It is our opinion that, except for the relatively few cases of overdosage, drug idiosyncrasy and reflex phenomena, cardiac arrest during anesthesia stems primarily from extreme deviations of respiratory physiology.

The number of separate factors contributing to such deviations makes for an impressive list. The first purely anesthetic factor to be considered is premedication, because anesthesia actually starts here. Barbiturates and narcotics are the chief depressants as premedicants, and it is their injudicious use which results in difficulties. The most common complication is illustrated in the patient who arrives at the operating room markedly depressed, hypotensive and hypopneic. In the normal healthy patient this handicap may mean nothing, but in the poor-risk patient, it may be quite serious. As shown by Etsten,[1] premedication itself can produce CO_2 retention and hypoxemia, before the initiation of anesthesia.

Beecher[2] has emphatically stated that there is no place for narcotics in premedication, unless the patient is in pain. Perhaps the answer to more physiologic premedication will be found in the category of the recently developed mood drugs, the so-called tranquilizers.

General anesthesia adds a large share to the total problem of hypoventilation. All of the general anesthetic agents produce respiratory depression at surgical levels of anesthesia and the depression increases proprotionately with depth. Those who argue that such depth of anesthesia with its concomitant respiratory depression is no longer necessary in this era of muscle relaxants, are overlooking the fact that surgical relaxation in light general anesthesia under curarization is indistinguishable from the deepest planes of pure general anesthesia. The intercostal paralysis—which is a pharmacologic effect of deep ether anesthesia—is mimicked exactly by the direct intercostal paralysis of the curarizing agents. The same mechanisms come into play to depress minute volume, and to produce hypoxia and CO_2 retention.

A vague realization of these facts by some surgeons has resulted in the erroneous conclusion that spinal anesthesia should be used for all surgery where profound relaxation is mandatory. They forget, however, that spinal anesthesia to the nipple line, the 4th thoracic dermatome, is the necessary level for upper abdominal surgery.[3] At this level a large per centage of the accessory muscles of respiration will be eliminated. It is not unusual to see patients with high spinal anesthesia show sharp, jerky diaphragmatic respirations and a tracheal tug—indications of respiratory insufficiency. A patient with such a handicap placed on his ventilatory abilities can, with the addition of hypotension, become quite hypoxic.

The demands of surgery often contribute as much to the problem of ventilation during anesthesia as the anesthesia itself. Foremost among these demands are those encountered during thoracotomy. For in this procedure, the respiratory mechanism suffers a derangement which could prove fatal, if it were not for the supportive measures of the anesthesiologist. Pulmonary collapse, mediastinal shift and reflex activity, all contribute to progressive hypoxia and CO_2 retention on a scale which has only recently become recognized and appreciated.

Besides thoracotomy, other purely surgical con-

From the Section of Anesthesia, Division of General Surgery, The Grace Hospital, Detroit, Michigan.

siderations influence ventilation. The restriction of diaphragmatic excursion by packs and retractors in the upper abdomen is a considerable item when we remember that in deep anesthesia the diaphragm may be the only respiratory muscle in action. Examples of other restrictive factors on ventilation, are: (a) The steep Trendelenburg position which pushes the abdominal contents up against the diaphragm, and (b) the nephrectomy position, which depends on a broken table and an elevated kidney rest.[4]

Finally, in considering factors influencing ventilation, we must not ignore the patient's disease, which may or may not be the reason for the surgery considered.

Primary pulmonary pathology, for example, tuberculosis, bronchiectasis, carcinoma—all can produce alterations in normal respiratory physiology. Also cardiac disease with resultant congestive failure, pulmonary hypertension et cetera, can effect serious changes in a patient's ventilatory efforts. Yet pulmonary and cardiac surgery are increasing while the old barriers of anesthesia-risk are disappearing. The fundamental basis of anesthesia and resuscitation is still the maintenance of an intact and adequate circulatory and respiratory system. Any degree of deviation from adequacy will multiply the anesthesiologist's job of maintaining vital function, and none is more immediately vital than an exchange of respiratory gases in concentrations approaching normal, or better than normal, levels.

The approach to the problem of ventilation by anesthesiologists until recently has revolved about two general methods. In one, oxygenation was insured by providing high O_2 tensions in the artificial atmospheres they supplied the patient. If this proved inadequate, a second general method was called upon. The patient's respirations were assisted or replaced with artificial respiration. The latter methods are possible by squeezing the reservoir bag of the anesthesia machine.[5]

To adequately take over a patient's respirations, one or more conditions must be present, and these are usually contingent on a state of depressed respiratory activity.

This paper represents experience with 233 major surgical procedures, primarily thoracic, on seriously ill and poor-risk patients, in which a mechanical respirator[6] has been used to substitute for manual compression of the reservoir bag by the anesthesiologist.

Several types of this apparatus are available but the constant principle of all of them is a mechanically activated bellows, substituted for the reservoir bag of the anesthesia machine. In essence, the bellows inflates the lung to a predetermined and adjustable pressure and then deflates the lung actively by producing a negative pressure which is equally measurable. A method of varying the rate of respiration is also incorporated.

Up to now, other techniques for controlling respiration have had the disadvantage of either delivering positive pressure only or of maintaining pressure in the respiratory tree of above-normal levels. Continued elevated pressure in the respiratory tree can produce serious cardiovascular disturbances—primarily, decreased cardiac return, diminished cardiac output and hypotension.[7]

In evaluating our experience with this apparatus, we feel that for the first time we are able to fully employ recent concepts of polypharmacy as an approach to analgesia rather than anesthesia in surgery. In short, the guarantee of adequate ventilation has perfected anesthetic care which, up to now, has been impeded by this one all-important consideration.

In this group of patients the ages have ranged from nine to eighty-nine years with the median range being the forty to forty-nine-year group.

As to type of operation, sixty-nine per cent have been thoracic procedures, ranging from surgery of the lung to cardiac operations, for example, excision coarctation aorta, resection patent ductus arteriosus, mitral commissurotomies, pulmonary valvulotomy, et cetera. Also there have been those procedures utilizing the combined thoro-abdominal approach.

TYPE OF OPERATION

Chest		162
A. Pulmonary surgery	83	
B. Cardiac surgery	63	
C. Other	16	
Abdominal		71

All patients have been classified according to the grading system of the American Society of Anesthesiologists—this schedule assesses the preoperative physical status of the patient.[8]

They are as follows:

Category	1	65
	2	92
	3	50
	4	4
	5	12
	6	10
	7	0

We think that the general course of these cases has been more stable with the use of this machine. We have used less in amount of anesthetic drugs. As a consequence we have had experiences comparable to those of Artusio.[9] That is, patients respond to simple commands such as "open your eyes," during the course of a major surgical procedure. Yet these patients are analgesic and amnesic as to their surgical experience.

There has been a marked reduction in the incidence of hypotensive crises. These were quite common in the past, especially in patients undergoing cardiac surgery. Hypotension is quite a serious complication, and its near elimination from anesthetic causes has been most welcome.

There is also less severe change in the metabolic state of patients receiving this type of anesthesia; respiratory and metabolic acidosis does not occur. As a result, fluid and electroyte balance is maintained more easily. In general, even our poorest-risk patients, who have had major surgical procedures are awake and capable of answering questions at the end of surgery.

This has been a marked asset in the postoperative period. These patients are capable of quickly beginning a postsurgical course of active coughing, deep breathing exercises, and early ambulation.

This has helped prevent respiratory and vascular complications.

Having a patient on the ventilator may seem to simplify the problem, but we find that more attention has to be paid to the patient and to the equipment. The equipment is only as good as the operator. Constant surveillance has to be maintained.

To illustrate, in one case, a coupling between the patient and the machine separated without immediate recognition of this accident. The patient became cyanotic, showed signs of severe hypoxia, yet because the machine was still working along and making its characteristic sounds, it was thought that some other factor was responsible for the complication rather than the equipment. Fortunately, a quick check revealed the trouble, it was corrected and no harm resulted.

Another disadvantage of the ventilator is that there is no means of ascertaining exactly the tidal volume in cubic centimeters that is being delivered to the patient. However, neither does one know quantitative volume when manually compressing the rebreathing bag. It is a matter of clinical observation and judgment. It would be highly desirable to incorporate into the apparatus a meter to indicate respiratory volumes. As stated before, the pressures at which the gases are delivered and removed from the respiratory tree, are predetermined and adjustable. Both positive and negative pressures have a range up to 25 cm H_2O. However, with one patient, suffering a severe chronic asthmatic condition with marked emphysema and pulmonary fibrosis, the machine could not deliver adequate pressure to inflate the patient's lungs.

Only by tremendous manual compression of the rebreathing bag, could the patient be ventilated with any degree of sufficiency.

Discussion of One Death

In this series there has been one death attributable to anesthesia. This was a forty-plus-year-old man with a history of obstructing duodenal ulcer. He was to undergo gastric resection. Preoperative evaluation of the patient revealed him to be in good health with no other serious complaints or complicating disease. He was prepared for surgery. Preoperative medication consisted of Nembutal,® 100 mgm ninety minutes before surgery; Demerol® 100 mgm; atropine 0.6 mgm, one hour before surgery. The anesthetic was to be spinal, supplemented with Pentothal® and N_2O, and O_2. A prespinal dose of ephedrine (50 mgm) was given approximately twenty minutes before lumbar puncture. Spinal anesthesia was performed with Pontocaine® and dextrose 16 mgm plus 0.2 cc adrenalin, a level to D-4 established and then a small sleep dose of Pentothal was administered. Following this the patient was put on N_2O and O_2, 4 liter/min. flow of each.

Very shortly after this, a drop in blood pressure to 60/40 occurred. This was treated with an intravenous Neosynephrine® drip (10 mgm/500 cc 5 per cent D/W). From this point on, the patient's blood pressure fluctuated greatly and was difficult to maintain on an even plane. Without the intravenous pressor the blood pressure would immediately fall to very low levels. As an additional factor, it was determined that the patient was not ventilating adequately, a situation resulting from a combination of factors—the high spinal, the amount of pentothal necessary to keep the patient asleep, and the presence of retractors

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and sponges in the abdomen. At this point the patient was intubated and placed on the ventilator. Difficulty was still encountered in maintaining a level blood pressure but no other problems were encountered and surgery proceeded uneventfully. Three units of blood were given during surgery which was felt to be adequate replacement. As the last skin sutures were being placed, there was a sudden cessation of pulse with no blood pressure obtainable, pupils became widely dilated and a diagnosis of cardiac arrest made. Immediate thoracotomy was undertaken. The heart was in asystole, and all efforts at resuscitation were fruitless. Autopsy showed only as a significant factor—marked coronary artery atherosclerosis with narrowing. Microscopic examination revealed minimal myocardial fibrosis.

Discussion

Because of the breath and scope of modern surgery, with operations on patients of both age-extremes, of surgical procedures of great inherent stress and severity, with patients presented as candidates for surgery who as recently as ten years ago would have been refused entrance to an operating theater, anesthesia as a medical specialty has become a challenge.

One of the most recent and important answers to this challenge has been the advent of controlled mechanical respiration during anesthesia. To us, this has been a definite adjunct in the anesthetic management of our patients. We think that this mechanical respirator has such merit, that we are reluctant to do thoracic surgery without its employment.

These merits are:

1. Maintenance of normal respiratory physiology.
2. Marked reduction in total requirement of anesthetic agent.
3. Decreased incidence of hypotension.
4. Early awakening and recovery.
5. More rapid ambulation with prevention of postoperative complications.

Summary

The concept of analgesia in surgery to supersede anesthesia is a logical projection of all clinical and investigative experience to date.[10] The protoplasmic toxic manifestations of heavy dosage necessary to produce surgical anesthesia with one or two agents are well known.

The conclusion, then, is that a method employing minimal dosages and insuring a normal exchange of respiratory gases should prove to be a welcome addition in the anesthesiologist's armamentarium.

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DEVELOPMENT OF A SATISFACTORY PUMP OXYGENATOR

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The Problem of Psychiatric Symptom Formation

By M. Ralph Kaufman, M.D.
New York, New York

A DISCUSSION of symptom formation in psychiatry at our present level of sophistication involves an exceedingly complex series of hypotheses and formulations. This has been well exemplified by the fact that psychiatry has been in difficulties since its inception as a discipline within the medical sciences when it approached nosology. Indeed, the most recent summaries of a committee of the American Psychiatric Association tended to point up the complexities and difficulties inherent in this area.[1] In order to understand symptom formation in relation to any aspect of medicine, it is necessary, therefore, to have certain hypotheses regarding health and disease.

In recent years within psychiatry, and especially within the field of psychosomatic medicine, attempts at formulation of such hypotheses have been made. Three names immediately come to mind—Grinker, Engel, and Karl Menninger—as the most recent contributors in this area. As in all branches of science, the most recent contributor is but one in a long line of workers who have attempted to ask the questions and supply the answers. Merely to list such workers would require more space and time than is available. Therefore, in this paper I shall restrict myself only to certain writers whose names are familiar, utilizing their work as paradigms for the attempts to understand the problems as they were formulated in their time.

Psychiatry is a branch of medicine, and as a branch of medicine its broadest base is biologic. Therefore, any attempt to understand psychic symptom formation must essentially relate to the understanding of symptom formation in any other of the areas of medicine. Since there are fundamental biologic laws, any explanation of symptom formation regardless of the nature of the symptom must be within the sphere of biology. Therefore, from this point of view fever and phobia must qualitatively serve a similar biologic function in relation to the adaptation of the organism.

Grinker in his recent writings, particularly in the volumes on "Psychosomatic Research"[2] and the "Psychosomatic Casebook,"[3] has presented hypotheses in the area of psychosomatic medicine involving a field concept. Without entering into all the details of his presentation, it may be sufficient to state that this field theory "applied to psychosomatic science is a dynamic concept borrowed from physics for the consideration of organization of parts and wholes. This organization although constantly in the proces of change has a stability in its 'part-whole' relationships. Viewed during a short time segment along a spatial dimension, it appears as a structure. Viewed as a process in time during change, it has a function. Thus the living organization is a structure-function of which special aspects become accentuated depending on the position of the observer."[3] He emphasized that the parts are not separate, independent and self-acting entities, but are continually acting in accordance with their own "structure-function, reacting or straining under stress and interacting with other parts of the whole. Through these processes the parts of an organization maintain the whole, not as a sum, but through integrated transactions."[3] The psychosomatic field then becomes a continuum "in which there is a tendency through transactions to maintain equilibrium, orderliness or steady state."[3] He maintains that one can view the whole field as a "transaction among somatic, psychological and cultural processes." He emphasizes the genetic approach involving all aspects of the field, and maintains that the function of the organism at any given time depends upon its whole previous history, which includes also its hereditary and constitutional aspects and involves its total previous responses in this continuum. In other words, one can only understand any immediate reaction of the organism, which would include symptom formation, in the light of its total history. This brief summary does less than justice to Grinker's excellent formulation, but since I

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Dr. Kaufman is Director, Department of Psychiatry, The Mount Sinai Hospital; Clinical Professor of Psychiatry, College of Physicians and Surgeons, Columbia University, New York, New York.

wish to use it here only as a background, I can only recommend the reader to the original writings.

The volume, "Mid-Century Psychiatry" edited by Grinker,[4] presents a series of papers read at the opening in 1951 of the Institute for Psychosomatic and Psychiatric Research and Training of the Michael Reese Hospital. Engel[5] in his brilliant paper, entitled "Homeostasis, Behavioral Adjustment and the Concept of Health and Disease," has presented perhaps the most concise and well thought out organismic point of view which involves the organism's phylogenesis, ontogenesis, biologic, psychologic, and social aspects. He presents a point of view which is truly organismic and biologic in the widest sense of the term, since within the structure and function of any given organism the same laws are applicable. The organism and its relationship to its environment is in a constant state of flux which, nevertheless, involves a continuous series of processes utilizing all aspects of its functioning and in an inter-related series of procedures aimed at the establishing of an equilibrium.

The mutually interchangeable biologic and psychologic devices are phylogenetically and ontogenetically determined. The past of the individual, both in phylogenesis and ontogenesis, provides the mental apparatus with processes for expression and defenses which may be somatic systems. "The behavior of the organ or system so used is limited by its structure and function." Thus organs and systems may respond to widely diverse stimuli, whether somatic or psychic, in a similar way.

He elaborates further the extremely complex inter-relationship of the variables involved, particularly in the areas of biologic, psychologic, and sociologic adjustment. Here again, one should emphasize the relative injustice to the author in attempting briefly to summarize his point of view.

Karl A. Menninger has recently formulated a point of view which is of great interest and value. Essentially his thesis is that the principle of homeostatis can be applied to psychologic phenomena, that the functions of the ego can be viewed as "those of a homeostatic effector." In order to maintain the integration of the organism, the ego needs to improvise many adaptive expedients. The prevention of threatening disintegrative processes is handled by the ego with a series of emergency regulatory devices. His thesis is summarized as follows:

> "I believe that this conceptualization of the ego's regulatory function provides us with a broader frame of reference for understanding mental illness and will enable us to discard some of our vague, many-faceted, traditional terms in exchange for more definite and precise designations of process and stage. It also helps us to align our psychoanalytic concepts with general organismic-biologic theory."[6]

My own point of view is somewhat of a combination of the foregoing positions insofar as I can understand them with certain, perhaps minor, variations. I look upon the organism from a number of perspectives. Each organism, in this instance man, has a long phylogenetic and evolutionary history. This is specifically related to his genus and species which allows for certain potentials and sets certain limitations on the functional relationship between the organism and his environment. The ontogenesis of the individual is of tremendous significance since, within the potentials and limitations of the genus and species, the organism develops in a progressive and integrated way with each system (digestive, cardiovascular, central nervous, autonomic, psychic) shunting in after functional maturation to take over that role which its structure and function calls for in the total functioning of the organism. From the very beginning at the level of sperm and ovum, the processes have an adaptive equilibrium between organism and environment, each playing its essential role which involves the ultimate for survival. With the development and integration of the various systems, of which the psyche is one, the systems relate to each other in a kind of syncytium, which means that no activity within one system can be isolated and unrelated to the total integrative, homeostatic, if you will, function of the organism. Each system's function is delimited and potentiated by its inherent structure and modalities available to it. Therefore, one can say that the blood system can only function with the capacities of a blood system. The cardiovascular system functions only within the capacities of its structure, and the psychic system functions within its capacities in terms of the modalities and processes available to it.

It is necessary to re-emphasize that structure and function are intimately related, but that the part is never greater than the whole, and the

whole is always greater than the sum of its parts, only in the sense that the whole functions in an integrated fashion and in a way which is not possible for any one of its individual parts. Flight or fight is an organismic reaction and not a part reaction. Throughout the intra-uterine development of the individual the embryo and fetus are subject to environmental forces, and the continual need for the maintenance of homeostasis is biologically necessary. In many given instances where the stimuli provoke a reaction which requires an adaptation beyond the borders of the system or organism's capacity, a disruption results which may or may not be reversible and which might be called a disease process.

As psychiatrists, we are interested in the question as to when the psychic system begins to develop in the organism. There is a good deal of evidence that points to an intra-uterine development of this system. The work of Hooker[7] and Coghill points in that direction. This question is of more than academic interest, since some hypotheses would indicate that ego function, particularly in the sphere of the autonomic ego, begins prenatally.

With the advent of birth, the human organism is subject to a series of stimuli and experiences of tremendous significance for its future growth and development. The role of maturation in relation to function throughout is of prime significance. Throughout the organism's functioning, one is constantly dealing with a series of variables relating to each other in such a way that the change within any one variable predicates the change in the relationship of all variables to each other with the resultant change in the overall organismic reaction.

Emphasis has been placed on the structure-function of the systems within the organism. It has been stated that the structure of the system delimits its function and that the modalities and processes available to any system will determine the functioning of that system. I should like to carry this thought further in regard to the psyche.

Adaptive processes as related to the organism, both in its internal economy and its relationship to the environment, have long been known and conceptualized in various ways in the biologic sciences. The "milieu interieur" concept of Claude Bernard (1878) perhaps was the first summarized presentation in modern times. The work of Walter B. Cannon which began in the early part of this century and which demonstrated the efforts of living organisms to maintain a steady state both in relation to their internal and external environment was an outstanding contribution in this field. As is well known, Cannon suggested the term homeostasis for these states, since "the constant conditions which are maintained in the body might be termed *equilibria*. That word, however, has come to have fairly exact meaning as applied to relatively simple physico-chemical states, in closed systems, where known forces are balanced." He further stated that "The coordinated physiological processes which maintain most of the steady states in the organism are so complex and so peculiar to living beings—involving, as they may, the brain and nerves, the heart, lungs, kidneys and spleen, all working cooperatively—that I have suggested a special designation for these states, *homeostasis*. The word does not imply something set and imobile, a stagnation. It means a condition—a condition which may vary but which is relatively constant."[8]

The acceptance of a conceptual frame of reference which involves the total organism as a syncytium of open-ended systems, which includes the psychic system as a constantly functioning, interrelated, integrative series of processes, does away with any need for dichotomization between psyche and soma. It enables one to formulate the problem of symptom formation in that area of human functioning that comes under the special observation of psychiatry. Reference has been made to the fact that the functions of each system are delimited by the modalities and processes available to that system. This is true of the psychic system. In addition to the intrasystemic functions of the psyche, there is another extraordinarily significant and important role that this system plays, in that it serves as an integrator and coordinator and stimulus source in relation to the other systems. In many ways, it is the system most closely related to the environment, and in that sense the most plastic.

In the history of medicine certain discoveries are of fundamental importance and serve to clarify previously unclear areas. In addition, the way is opened for reformulation of previous knowledge and for breaking ground for new knowledge. The work of Sigmund Freud was of this fundamental character. It would be difficult if not impossible to present even a summary of a summary of the discoveries, hypotheses, theories,

and concepts which make up modern psychoanalytic psychology. Nevertheless, it will be necessary to present, even though in an extremely oversimplified way, the development of this psychology.

It is the uniqueness of psychoanalytic psychology and its essential differences from previously formulated systems of psychology that permits the integration of the psyche into the total organism. It is only in the light of our understanding of psychoanalysis and its unique contribution that it is possible to uphold a thesis such as mine. In a previous publication on "Problems of Therapy,"[9] some aspects of the problem were discussed.

Freud's basic position has always been a biologic one which involved a perspective of the total organismic functioning. He chose to work in the area of psychology because that limitation seemed to offer him the greatest opportunity for the evolution of his ideas. Sight must never be lost, however, of the basic fact that even in his self-designated speculations, he always attempted to remain within the framework of the biologic sciences.

Psychonalysis as a system of psychology has various aspects—the dynamic, genetic, topographic, structural, and economic. Each one of these aspects has a developmental history within the conceptual framework of psychoanalysis. Beginning essentially with a two-system aspect, the Unconscious and Conscious, and the relationship between these two systems, there was recognized the interplay of dynamic forces. The genetic aspect involved both hypothetical phylogenesis and ontogenesis. Within this framework it was recognized that there was a basic genetic relationship within the development of the individual. This has become a fundamental part of psychoanalytic thinking. In addition, from the very beginning, analysis dealt with energy systems in terms of stimulus and discharge, and the economic problem of energy distribution was related to the instincts.

A knowledge of the modalities and processes available within the psychic system is as essential as similar knowledge in relation to any other system within the organism. For instance, it is of special importance to emphasize the special sense in which psychoanalysis uses the term "unconscious," particularly in the sense of the system "Unconscious." The laws of primary process which exist in the Unconscious make for its uniqueness, and differentiate the Unconscious of Freud from any other concept of the unconscious. For instance, the fact that in the Unconscious there is no negation, that it is characterized by timelessness, that it is subject to the pleasure principle, that it is exempt from mutual contradiction, that it is not related to reality, that there can be a substitution of psychic for external reality, that there is mobility and displacement permits of an adaptation which leads to symptom formation in the total functioning of the organism. The above may be likened to the physiologic modalities of the central nervous system or the hematopoietic system.

There are available certain mechanisms of defense which, within the psychic system, are of the same order as the processes available to the organism in responding to such diverse situations as changes in oxygen, tension, or an irritant leading to inflammation. Just to name these mechanisms is to become aware how deeply incorporated they have become in our psychiatric thinking —repression, regression, reaction-formation, isolation, undoing, projection, introjection, turning against self, reversal, sublimation or displacement of instinctual aims.[10]

One of Freud's earliest contributions was a demonstration that neurotic symptoms were not haphazard, meaningless phenomena but were especially related to the total experience of the individual; that they had a complex but definable significance in the workings of the psychic apparatus; and that they served as a compromise formation in the solution of a conflict. Another important postulate in analysis has been the relationship of specific phases of development in terms of libido theory and the gradual evolution of the ego and superego systems to the type of maturation and development which enter into personality organization and the specific relationships of certain character traits and neurotic symptoms to specific phases of development.

As I have stated in another context, psycshoanalysis is biologically based and body bound.[11] Some pseudoscientific quarrels have arisen between different groups primarily because overemphasis has been placed by one or the other group on different aspects of the ecologic interaction pattern. Perhaps the statement that culture channels instinct might express the formulation best.

The problem of symptom formation and its nosologic concomitant is as old as medicine (Hip-

pocrates). All systems in a biologic organism and all reactions of that organism must follow fundamental biologic laws. As stated above, the mechanisms through which these laws function depend, of course, on the modalities and processes available to the organism and the organism's systems. This concept is fundamental, and there are no exceptions to the rule. What appear to be exceptions turn out to be matters related to our ignorance. One might use what happens in infections as a paradigm rather than an analogue of the point of view relating to symptom formation expressed above.

Harrell in the chapter on "Factors Affecting Infections" in Sodeman's "Pathologic Physiology" states the matter rather well, and I take the liberty of quoting him.

"Infections are the result of a constantly changing set of factors. People are continuously exposed to agents of disease, either directly from the environment or indirectly from some reservoir of infection, often through the mediation of a vector. The severity of any particular infectious disease varies with three factors: (a) the number of invading organisms, (b) the virulence of the organism and (c) the resistance of the host. The interrelationship of these factors may be expressed as follows:

$$\frac{\text{Number} \times \text{virulence}}{\text{Resistance}} = \text{Severity.}"[12]$$

It obviously is too difficult, complex, and time consuming a job to trace through the mechanisms of all symptom formation. If one accepts an organismic point of view, it follows that any change leading toward a new type of equilibrium cannot be restricted to any single system. Therefore, symptoms and signs observed either objectively or subjectively within the psychic system are but the overt manifestations of a total adaptation going on within the organism. A subjective feeling of shame manifests itself in many ways and in many systems, from a flushing of the face to an increase or decrease in the pulse rate. Darwin's "Expression of the Emotions in Man and Animals"[13] documents this beautifully, and innumerable poets and scientists have demonstrated its truth. It may be trite to draw attention again to the fact that the symptoms and signs that we call disease, as for instance in a pneumonia, really represent a focusing on only one aspect of the total reaction of the organism which takes place in pneumonia. This has implications for nosology in psychiatry that I hope to have an opportunity to discuss at some future time.

By way of illustration and following Freud in "Inhibition, Symptom and Anxiety," illustrations of symptom formation in phobia, hysteria, obsessional neurosis, and schizophrenia may be used as examples of the individual's adaptation through the utilization of the modalities and processes available to him, particularly within the psychic system. It is extremely difficult to point to even a single paper of Freud's which does not in some way or other concern itself with the problem of symptom formation. In this classic monograph which was first published in German in 1926 and of which two English translations exist, one by Henry Bunker[14] published in this country, and one by Alix Strachey[15] published in England, is presented Freud's most considered formulations to that time.

Freud was very careful to emphasize the complexities involved and to bring to the attention of the reader the relative sparsity of knowledge available. He attempted a differentiation between an inhibition of function and symptom formation, and made numerous illustrations of both. At times, however, he pointed out that what might be considered an inhibition in one context could readily be considered a symptom in another. Broadly speaking, inhibition involved a functional limitation of the ego, whereas symptoms denoted pathologic processes. For purpose of discussion and comparative study, he selected sexual function, eating, locomotion, and occupational work.

At the core of psychoanalytic thinking in relation to mental functioning, particularly symptom formation, lies the problem of anxiety. Originally, Freud's formulation of anxiety was essentially a physiologic one in the sense that he postulated that any affect which was repressed could be turned into anxiety. Later this concept was changed to what is essenitally a psychologic formulation, namely, that anxiety was a subjective mental signal of an internal danger situation. The full implications of this change have as yet not been fully assimilated.

In attempting to differentiate between anxiety and other affects, Freud stated that anxiety was a subjective feeling related to dread which was accompanied by motor manifestations. Throughout psychoanalytic literature and in the literature of dynamic psychiatry, one still speaks of symptoms as binding anxiety, whereas in reality it seems to me that the feeling of anxiety and the concomitant somatic manifestations are not necessari-

ly in a vertical relationship. This, in some sense, is implied by the various discussions about anxiety.

Freud has sought for the prototype of the original danger situations and anxiety manifestations in the birth experience. In terms of organismic adaptation, the fight or flight reaction to danger, one might very well think of the somatic manifestations as a cotemporal reaction of the individual somatically to adapt to the danger signalled by anxiety in either a flight or fight reaction. There are many symptomatic situations in which this coexistent relationship is quite clear. In the phobia, an avoidance of the danger place results in a disappearance of anxiety. Of course, one must take into account the role of overdetermination, the compromise nature of every symptom in terms of the striving and satisfaction of every instinctual impulse, the role of the defensive maneuvers, the secondary libidinization of the defense mechanisms themselves, and a host of other known and complicating factors. And to be aware of the fact that any oversimplification can never tell the total story. And again in the phobic reaction, the danger place may become ever-widened, that is, an unconscious source of gratification, so that the safety place protected by the counterphobic attitude becomes more restricted.

I should like to speculate that the somatic manifestations of increased heart rate, respiratory movements, gastrointestinal manifestations, et cetera, that are seen in an anxiety attack are indeed related to the birth situation. However, all of these are necessarily adaptive to the new environment. Without respiration the neonate cannot survive. This would fit much more closely with the organismic point of view. Freud, himself, of course recognized this at various times and differentiated between the danger signal and the danger situation. In conversion hysteria it appears that a conflict situation in an individual who has reached the phallic level of development at the time of the oedipus complex and in relation to its implications resolves the conflict by the utilization of the mechanism of repression as a defensive maneuver.

Perhaps the most dramatic difference between Kraepelin and Bleuler is not in the attempt at classification as it is in the attempt to understand. Bleuler's class monograph,[16] his division of the symptoms of schizophrenia into primary and secondary based on the hypothesis of the schizophrenias as an organic disease responsible for the primary symptoms and the secondary symptoms as attempts at restitution, was the academic acknowledgment of the validity of Freud's hypothesis. Mention should be made of Jung's "Psychology of Dementia Praecox"[17] published in 1906.

I should like to differentiate for the purposes of my thesis between the meaning of the content of a symptom or sign and its meaning in the total biologic functioning of the organism. Psychoanalysts to a great extent following along Freud's path of choice made excellent contributions to the knowledge of the meaning of content and form without necessarily taking the essential conceptual step of placing the symptoms and the signs manifested within the psychic system in their true perspective. If the implications are followed to their logical conclusions, it becomes possible not only to understand the psychologic significance of psychic symptoms but also their biologic significance. Freud's work on the dream may be used as an illustration of the difference between the understanding of the content and the meaning of the symptom. To Freud the structure of the dream was like the structure of a symptom. In dream analysis one can understand the unconscious wish which is fulfilled from the analysis of the content within the proper setting of the psychoanalytic technique. The dream as a dream, as Freud has pointed out, has the function of guarding sleep so that the dreamer may continue to sleep rather than be awakened by the stimulus.

There is no need to deal with the psyche as an extraterritorial state. The totality of the organism and its adaptation and adeptedness in the sense of Paul Weiss[18] can be placed in a frame of reference which is truly biologic and one may understand fever and phobia as within their appropriate level of biologic homeostasis. Phylogenesis, ontogenesis, and ecology, each with its proper weight and each unique for the particular individual involved remains the basis for the understanding of the functioning of the individual in health and disease.

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Michigan Heart Association

Striking at the heart of a disease—through research—is the praiseworthy technique of the Michigan Heart Association. We wish that more voluntary organizations were as dedicated to solving basic scientific unknowns.

Admittedly, it is sometimes necessary for the health organization (as well as the doctor of medicine) to consider the symptom instead of the cause. But this is purely a short-term measure and is necessary only until further fruits of scientific research are borne.

The feeling of the medical profession toward the Michigan Heart Association is best indicated, I believe, by the close co-operation that has continuously existed between the two groups. This co-operation is a direct result of the Association's research approach to the overall heart problem.

Working together, the practicing physician, the researcher, and the Heart Association can surpass their previous efforts and eventually ring down heart disease as the nation's number one killer.

Geo. W. Slagle.

President, Michigan State Medical Society

President's



Message

Editorial

THE CHALLENGE OF HEART DISEASE

In an editorial in the first issue of *Challenge,* the newly published newsletter of the Michigan Heart Association, M. S. Chambers, M.D., Flint, the Association's President, stressed the educational services made available to Michigan physicians.

"More and more physicians," he says, "are being reached through scientific exhibits, publications and meetings. A larger segment of the general public is also being reached through the press, radio and TV, as well as through exhibits, talks and publications. The organizing of Heart Units throughout the State will tend to accelerate this entire educational program."

Dr. Chambers reiterated that, although approximately 50 per cent of all the Michigan Heart Association's funds have gone into scientific heart research, the Association is stepping up rapidly the process of bringing the results of this research to the medical profession and to the public.

He says that an interested medical profession and an informed public can do a great deal to help promote the scientific investigations and other activities of the Association which will help to decrease the tragic and unnecessary toll taken by heart disease.

"By becoming a working member of the Michigan Heart Association," Dr. Chambers points out, "*You* can help meet the *challenge* of heart disease."

EDITOR'S NOTE

In the preparation of this number of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, we are again indebted to the Michigan Heart Association and its Secretary, J. G. Bielawski, M.D., for the cover and the papers bearing on Heart Disease. Other material is to be considered as general supply and of independent origin. We again thank our assistants in accumulating special articles, many of which are Heart Association-sponsored or accepted research.

WINDSOR MEDICAL SERVICE

On November 8, 1957 at Ann Arbor, the University of Michigan issued a long report on the Windsor Medical Service which had just been completed. The Michigan State Medical Society had known that such a survey was being conducted by S. J. Axelrod, M.D., and Nathan Sinai, D.P.H., from the Department of Public Health Education at the University. The Governor's Commission studying Blue Cross-Blue Shield had ordered a study and suggested Dr. Axelrod to conduct it. The Michigan State Medical Society warned that any study, to be of value, had to be unbiased and recommended that a different survey method be employed.

Newspaper clippings and this report from Ann Arbor are all in glowing terms of the success of the Windsor Medical Service program which it says has been in operation for twenty years—a slight misstatement. (The first policies were sold in July, 1939, but in 1945 there were only 7,656 subscribers). The numbers have increased until in December 1955, there were 171,000.

The report quotes the subscribers as being very satisfied and the doctors as being "satisfied." It claims that a very small per cent of the doctors of the Windsor area have some criticism.

Press reports are that the Windsor physicians are very favorable—92 per cent of them—and that is about the number who are participating. We also received from the Health Information Foundation of New York a six-page, fairly detailed report of this survey. They sponsored it and financed it. The report was made by Benjamin Darsky, M.A., Nathan Sinai, D.P.H., and Solomon J. Axelrod, M.D., M.P.H., and will be published by the Harvard Press in 1958. This report says 63 per cent of the Windsor physicians reported an increase in the proportion of their income derived from Windsor Medical Service over the few years prior to the survey year, 1954. (Naturally, because the subscribers grew from 7,657 to 171,000). Of these doctors, 40 per cent were very satisfied with this increased dependence on the plan, 42 per cent were fairly satisfied, 15

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per cent were somewhat satisfied and 2 per cent were very dissatisfied. About two-thirds agreed that Windsor Medical Service had been generally in the best interests of physicians. Another 29 per cent believed that in some ways it had, but in other ways it had not.

Relative to the fee schedule itself—27 per cent were satisfied, 55 per cent believed it required some change, another 16 per cent believed that "major revision is needed." Most physicians are satisfied with the so-called "taxing" procedures by which a physician's claims are reviewed and adjusted if deemed excessive. About 95 per cent of the claims received by the plan are processed routinely; the remaining 5 per cent require some consideration by the medical director, or by the "medical control committee." As a result of this, an average reduction is made of about 3 per cent of the total claims submitted by participating physicians. None of these facts was in the newspaper releases.

On April 27, 1957, at the extraordinary session of the MSMS House of Delegates, Max L. Lichter, M.D., Detroit, made a report on the Windsor Plan, after a very thorough study. Here are some quoted items:

"The Plan pays about 90 per cent of schedule when proration of income is adjusted to the services. The fee schedule is about 89 per cent of the Michigan Blue Shield 35,000 contract. Non-participating doctors are not paid by the Plan but payments are made to subscribers. There are various waiting periods for pre-existing conditions such as tonsils, and adenoids, hernias, gynecology and obstetrics, and for refraction—from six months to a year.

"The medical director adjudicates all disputes between the subscribers and Plan doctors and the Plan decision is usually final. One can appeal to a special committee which reports to the Board. The Medical Director reserves the right to determine adequate amount of medical care and the Plan pays accordingly. Doctors can't charge extra to patients when the Plan reduces allowances, if patient is under income. The Plan's Board and Committees police itself and are effectively reducing over-utilization. The Plan may cancel participation of an M.D. The Hospital Service is carried by the Ontario Blue Cross which had 2,158 subscribers in 1945 and only 1,062 a decade later."

PUBLIC HEALTH STUDY COMMISSION

About two years ago, a Public Health Study Commission consisting of twenty-five members was appointed, with Professor Wilbur J. Cohen of the administrative department of the School of Public Health of the University of Michigan as chairman. Dr. Cohen is professor of public welfare administration. Dr. Kenneth A. Easlick, professor of public health dentistry and Solomon J. Axelrod, M.D., professor of public health economics, are members of the commission, which delivered its report, representing fifteen months of study, to Gov. G. Mennen Williams on Thursday, November 21, 1957.

The report states that Michigan's public health problem is basically sound but lacks general vigor and active citizen interest. Four additions to the state's present health program are suggested:

1. A voluntary health insurance plan for state government employees, supported both by the employer (state) and employees;
2. State scholarships and financial assistance to qualified young women for nurses training;
3. Allocation of at least 5 per cent of all state expenditures for research in the prevention of mental illness, and
4. Establishment of seven-man local health advisory committees to encourage active citizen participation in solving local health problems.

The Commission makes twenty-three basic recommendations but stresses the following:

1. Strengthening local public health services, which are now short about $35,000,000 annually of the minimum requirements for effective local health service in all counties of the state. An immediate increase of $1,000,000 over the present state appropriation is asked, leaving the counties and cities to raise about $4,000,000 annually.
2. Strengthening services for persons chronically ill with cancer and heart disease, frequent causes of death in Michigan. Preventative studies will become increasingly vital as our population grows and ages.
3. Expansion of home care visiting nurse associations in counties which do not now have them. Funds should be provided by the state for an adequate staff to carry out inspections and licensing as defined by law for nursing homes and homes for the aged.
4. Establishing chronic disease units as integral parts of the teaching hospitals at the University of Michigan and Wayne State University plus construction of chronic disease wings in the larger general hospitals throughout the state.

Mental Health.—The state's mental health program has been improving recently in all phases but needs expansion of training program for clinical psychologists, psychiatrists and psychiatric social workers. "We need at least three new child guidance clinics and one addition of psychiatric clinic for adults." For the prevention of mental illness, the Commission advises a joint program

by the State Department of Health and State Department of Mental Health to aid prevention and relapse in mental illness.

Human Resources.—The Commission recommends the state government support research and service in the utilization of human resources; continued polio immunization; investigation of effects of radiation and air pollution; enactment of a pure food, drug and cosmetic law; and development of a home and traffic accident prevention.

To meet these recommendations, the commission urges recruiting additional manpower in the fields of health and mental health. It advises expanding Wayne State University's medical college by fifty graduates a year and immediately establishing a third medical school in Michigan.

Dentists, although fairly plentiful in some counties, constitute a critical shortage in others. It is recommended that the legislature expand the University of Michigan School of Dentistry from ninety-seven to one hundred and fifty graduates per year and establish a more vigorous campaign for fluoridation by the State Department of Health.

Vocational Rehabilitation.—The Commission charges that Michigan currently is doing only one-seventh of the job that needs to be done in vocational rehabilitation. The program neglects virtually the entire mentally handicapped population, large areas of the chronically ill, the aged-handicapped, the homebound, and youth of school age. It recommends an appropriation of $1,127,000 for rehabilitation and a proposed 32-bed multiple disability facility at the University of Michigan Medical Center and strengthen the State Workmen's Compensation Law for rehabilitation of injured workers.

Migrant Workers.—Michigan's migrant working families are increasing in numbers and the health conditions should be looked into, involving necessary plans for a practical and effective way of determining the kinds of health problems these families have, and developing basic health services for them including financing these projects through the State Health Department and legislative appropriations.

Home Tuberculosis Patient Care.—Post-sanatorium care for tuberculosis patients is needed to prevent relapse and to protect the state's investment of many thousands of tax dollars in their initial treatment. Three out of ten are reported to relapse.

AGAIN "AGIN"

After reading the AMA Secretary's Letter of November 15, we are unable to escape the feeling that the medical profession has again been maneuvered into a position of fixed opposition. Other newsletters, the AMA Washington Letter, and the Washington Report on the Medical Sciences, help to confirm that opinion. This AMA Secretary's Letter called attention to the Forand Bill HR 9467, 85th Congress, which proposes that the government, through the Social Security System, pay the cost of hospital, nursing home and surgical service to persons eligible for Old Age and Survivors Insurance Benefits.

"The socialized medicine proposal for a large and growing segment of the American people is essentially the same as that of 1941 to 1951 when the Wagner-Murray-Dingle bills called for National Compulsory Health Insurance, except that it applies to a smaller segment at this time"; . . . The American Medical Association has repeatedly opposed compulsory health insurance and is unequivically opposed to this new version."

The AMA Board of Trustees, at the request of the committee on legislation, has appointed a special task force composed of Drs. George M. Fister, Chairman, Frank C. Coleman, J. Duffy Hancock, George Gsell and Robert L. Novy (the last from Detroit).

Walter Polner, Ph.D., of the staff of the Bureau of Medical Economics Research, has been assigned full time to the task force and is conducting an intensive research study of the health status of the population over the age of sixty-five. We are reminded of the establishment of the National Physician's Committee, whose activities were approved by the House of Delegates at the AMA, June, 1942, meeting, asking physicians to interview congressmen and oppose the national compulsory health and sickness insurance (Wagner-Murray-Dingle) bills.

We Opposed

Wagner-Murray-Dingle editorials and items were published frequently. We are also reminded that the AMA issued a special assessment of $25 on each member and hired the Public Relations

firm of Whitaker and Baxter to conduct a National Education Campaign, January, 1949, to 1952. In October, 1943, THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY had an editorial, "They Never Sleep," calling attention to the concerted and directed effort to extend the socialization of medicine. In November, 1943, it had a five-page spread, entitled "S 1161—The Sign at the Crossroads," *abolishing* private medical practice.

We realized gradually that we were constantly opposing some legislation instead of offering a solution, so in January, 1944, THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY published an editorial, "Have We a Program?," followed the next month by two others: "Evolution and Democracy" and "Developing a Program." Michigan's program at that time was primarily the work of Michigan Medical Service demonstrating that the private practice of medicine was able to render to the people the essential and necessary services which they needed at a price they could pay and *without* the domination of a compulsory program.

The profession fought "political medicine" and enlisted the aid of many other organizations. The Michigan State Medical Society took a "political opinion survey" in 1944 in an effort to eliminate threatening government medicine. We suggested that medical treatment for veterans through the home-town programs be established. In March, 1945, we had three editorials "Wagner-Murray-Dingle Again," "We Have the Answer" and "Our Proposal," ending with this statement: "Expansion of the Michigan Medical Plans can now be rapid, and must be, to meet the proposals of the apostles of 'Complete security for all.' "

Through the years, the Michigan State Medical Society has been proposing that we do something positive in opposition to the compulsory health insurance program of Wagner-Murray-Dingle and others. We were in conference with the late Senator Vandenberg on various items and he told us the best way to oppose some legislation we do not like is to offer something better. This has been done through our prepayment program. Senator Vandenberg soon had his attention directed mostly to international affairs, so turned over to Senator Robert Taft the fight which the profession was making against socialized medicine.

More conferences, newspaper comment, newsletters after which Senator Taft proposed a more direct action—that a bill be introduced into the Congress which had the complete sponsorship of the medical profession. Committees, including one from the Conference of Presidents and Other Officers of State Medical Societies, conferred upon the principles which should be included, and on March 3, 1946, Senator Taft introduced his bill—the Taft Bill S2143. The medical profession was now fighting for something. *We had a program.* (The Taft Bill divided attention, gave us something to actively support and was abandoned when it had served its purpose to kill the Wagner-Murray-Dingle effort.)

The prepayment medical care programs throughout the nation, with their unprecedented success and the addition of a more favorable political attitude in Washington, has suppressed the compulsory health insurance program to the point where many of our doctors actually believe the threat has disappeared.

THE FIGHT CONTINUES

For the past couple of years, there has been extreme pressure upon the prepayment programs by certain groups who have not forgotten the power and prestige which might have been theirs. Some members of these groups are still in the government bureaus. Others are in our various institutions, teaching, making surveys and studies, and others are dismayed by the increasing costs of medical and health care due to most modern and very specialized services and values and are demanding complete or almost complete health care supplied by government. These pressures are reviving some or all parts of the old socialized medical compulsory health insurance program. Again the AMA has set up a task force, outlined a course of action, and has placed itself unalterably opposed to certain of the bills now in Congress, especially the Forand Bill HR 9467, placing on social security the costs of medical care for every beneficiary of the social security program; and the Dingle bill which includes all of the old Wagner-Murray-Dingle provisions which have not already been enacted.

The profession, in general, is once more placed upon the defensive, put in the unenviable position of always opposing some proposed legislative action.

Again Michigan steps forward to lead the way. Our State Medical Society has conducted an extensive survey to determine the wishes of the people and the doctors and has adopted unanimously, through its House of Delegates, a set of principles

to govern the distribution of prepaid medical service. A complete rejuvenation of the program has been ordered, new and revolutionary contracts are being devised, our fee and rate schedule is being completely revised, and we have proposed to guarantee this service to our under-income-limit subscribers.

Keen observers of the whole medical service philosophy believe the private practice of medicine may still be saved by private enterprise, justly, freely and adequately supplied, to the satisfaction of our patients and to our own advantage. The medical profession, by its very nature, is composed of rugged individualists; a great proportion of our keen diagnoses and expert service is made by the individual or small groups working together. The profession has always resented dictation by government or by organizers and pressure groups. Many have complained "no insurance company or other group is going to dictate to me what I may charge my patients."

Michigan Medical Service is not an insurance company or a pressure group. It is actually an integral part of the Michigan State Medical Society. It is incorporated and operated as a financial structure on business methods, but its control is through a Board of Directors elected by the membership, which is the House of Delegates.

Michigan believes it has an active and aggressive answer to the present threat to socialize medicine.

GREETING THE NEW YEAR

We approach the New Year with the confident expectations that it will have new questions, new problems, new tasks to perform and new experiences. The year just past gave us several problems in the field of socio-economic medicine. We believe the medical profession of Michigan is working out the answer to most of these problems. A year ago, we were not concerned with particularly extraordinary questions. We were concerned with Blue Shield finances, the necessity of increased rates and the thought in the minds of many of us that the coverage offered by our Michigan Medical Service must be expanded and made more adequate. That is now in the process of fruition.

At this time last year, the Medicare program had been established and was just beginning to function. Blue Shield Commission was negotiating with the federal government on a proposition to establish medical and health insurance for the federal employes and their dependents. How to give services to the over 2 million civilian employes and their dependents was being considered and negotiated. It is still in abeyance but is very much in the public eye, and this year will probably see some action to take care of these several million people.

We could very readily have this same question in Michigan apply to the state employes. That suggestion was made in the Public Health Study Commission report submitted recently to the Governor. The authors of that report were the sponsors and architects of the Windsor Medical Service, who usually have socializing ideas. Our Michigan Blue Cross and Blue Shield stand ready and willing to give complete services to the State of Michigan for the care of employes and their dependents if they desire. It is not necessary to create a new plan on a socialistic basis.

For several years, the present federal administration has been suggesting that some way be found to furnish health insurance to the indigent, medically indigent, the low income groups, and those on public assistance—a so-called reinsurance program was suggested. That, however, was so complicated that no one was interested. This is another area where health insurance is needed and, we believe, can be obtained. Suggestions and programs can and will be worked out to cover this particular area of medical care. We, in Michigan, toyed with this problem a few years ago. Our proposed solution failed because of rejection from Washington. We are confident of the future. We have the plan.

"MARCH OF MEDICINE" TV PROGRAM

The work of American physicians in remote regions of the world where native populations are largely dependent upon our doctors and medicine for their health and well-being is the television story to be aired coast-to-coast on January 23. Entitled "MD International," the hour-long show will be presented at 10 p.m. EST over the full NBC-TV network both in color and black and white. This is part of a joint American Medical Association and Smith, Kline & French Laboratories project to inform the American public of people-to-people activities in the health profession for the promotion of better international understanding.

The telecast reports on doctors' activities in thoracic and general surgery, orthopedics, ophthalmology and general medicine in such far-flung areas as Korea, Hong Kong, Burma, Sarawak, Nepal, India, Lebanon and Ethiopia. A special March of Medicine team traveled more than 34,000 miles to film these doctors in their unofficial roles as America's medical diplomats.

Actions of the AMA House of Delegates

December 3-6, 1957

Most of the work at the December meeting of the AMA House of Delegates was routine. More than thirty resolutions were prepared for presentation, a few were not presented because they were duplicated and some were withdrawn. Most controversial problems were decided by discussion at the reference committee conferences as has been the case for so many years, but three items came up for general discussion when the reference committee reports were presented to the House at the last session Thursday morning, December 5.

Fluoridation of public water supplies, free choice of physician, the Heller Report on organization of the American Medical Association, the Forand Bill providing hospital and surgical benefits for Social Security beneficiaries, guides for occupational health programs covering hospital employes, distribution of Asian Influenza vaccine and guides for the medical rating of physical impairment were among the variety of subjects acted upon by the House of Delegates at the American Medical Association's Eleventh Clinical Meeting held December 3-6, in Philadelphia.

Dr. Cecil W. Clark of Cameron, Louisiana, was named 1957 General Practitioner of the Year after his selection by a special committee of the Board of Trustees for outstanding community service. Dr. Clark, thirty-three-year-old country doctor who was a medical hero during Hurricane Audrey last June, was present at the meeting to receive the gold medal which goes with the annual award.

Speaking at the opening session on Tuesday, Dr. David B. Allman of Atlantic City, AMA President, called for "more freedom, not less, in America and in the medical profession." Dr. Allman urged the delegates to embark on local action campaigns to enlist full community support in opposition to the Forand Bill, a pending Congressional proposal which would provide hospital and surgical benefits for persons who are receiving or are eligible for Social Security retirement and survivorship payments. The Forand Bill, he said, is "cut from the same cloth" as national compulsory health insurance and "emanates from the same minds."

Total registration at the end of the third day of the meeting, with half a day still to go, had reached 5,375, including 2,562 physician members.

Fluoridation of Water

In settling the most controversial issue at the Philadelphia meeting, the House of Delegates approved a joint report of the Council on Drugs and the Council on Foods and Nutrition which endorsed the fluoridation of public water supplies as a safe and practical method of reducing the incidence of dental caries during childhood. The twenty-seven-page report on the study which was directed by the House at the Seattle Clinical Meeting one year ago contained these conclusions:

"1. Fluoridation of public water supplies so as to provide the approximate equivalent of 1 ppm of fluorine in drinking water has been established as a method for reducing dental caries in children up to ten years of age. In localities with warm climates, or where for other reasons the ingestion of water or other sources of considerable fluorine content is high, a lower concentration of fluoride is advisable. On the basis of the available evidence, it appears that this method decreases the incidence of caries during childhood. The evidence from Colorado Springs indicates as well a reduction in the rate of dental caries up to at least forty-four years of age.

"2. No evidence has been found since the 1951 statement by the Councils to prove that continuous ingestion of water containing the equivalent of approximately 1 ppm of fluorine for long periods by large segments of the population is harmful to the general health. Mottling of the tooth enamel (dental fluorosis) associated with this level of fluoridation is minimal. The importance of this mottling is outweighed by the caries-inhibiting effect of the fluoride.

"3. Fluoridation of public water supplies should be regarded as a prophylactic measure for reducing tooth decay at the community level and is applicable where the water supply contains less than the equivalent of 1 ppm of fluorine."

This item, when it came to the floor of the House on Thursday morning, December 5, met open discussion and attempted amendment in spite of the full discussion offered in the reference committee.

An amendment was proposed to the effect that while fluoridation might be of benefit, the AMA restated its opposition to compulsory treatment for the prevention of non-contagious disease. This amendment was rejected by divided vote when it was realized that the reference committee statement is simply one of endorsement of treatment plan and says nothing whatever about compulsion.

Free Choice of Physician

Acting on the issue of free choice in relation to contract practice, the House passed a resolution which reaffirmed approval of previous interpretations of the Principles of Medical Ethics by the Association's Judical Council and directed that they be called to the attention of all constituent associations and component societies. One Council

opinion, issued in 1927 and reaffirmed in Philadelphia, stated that the contract practice of medicine would be determined to be unethical if "a reasonable degree of free choice of physician is denied those cared for in a community where other competent physicians are readily available." The resolution also cited a Council opinion, published in the October 19, 1957, issue of *The Journal of the American Medical Association,* which stated that the basic ethical concepts in both the 1955 and 1957 editions of the Principles of Medical Ethics are identical in spite of changes in format and wording. This opinion added that "no opinion or report of the Council interpreting these basic principles which were in effect at the time of the revision has been rescinded by the adoption of the 1957 principles."

The 1927 Council report also pointed out that "there are many conditions under which contract practice is not only legitimate and ethical, but in fact the only way in which competent medical service can be provided." Judgment of whether or not a contract is ethical, the report said, must be based on the form and terms of the contract as well as the circumstances under which it is made.

In another action related to the issue of free choice, the House adopted a resolution condemning the current attitude and method of operation of the United Mine Workers of America Welfare and Retirement Fund "as tending to lower the quality and availability of medical and hospital care to its beneficiaries." The resolution also called for a broad educational program to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the "Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund" which were adopted by the House last June.

The Heller Report

The Heller report, probably the most important item considered by the House of Delegates at this meeting, was reported by the Board of Trustees at the close of the meeting in June at New York as having been received and studied by the Board and was being referred to a special committee of the House for a thorough study and report at the December meeting in Philadelphia. William A. Hyland, M.D., of Michigan, was the chairman of this study committee. The Heller report was voluminous, containing nearly 100 pages. In some ways, it was quite critical and, in some ways, it had some very good suggestions. In some ways, it gave evidence of not sufficient study of certain activities before making the report. The Heller survey had been made and the Hyland committee study "to promote efficiency of management of the Association's policy and activities." The Heller report had evidently been made with the idea that the Board of Trustees corresponded to a Board of Directors of a corporation and should act accordingly. The reference committee, in its report which was adopted, had carefully studied the Heller report and the Hyland committee report in detail and gave due consideration to the opinions expressed by a large number of delegates, officers, members of the Board of Trustees and members of the Association who appeared before the committee. The Hyland committee had made comments on certain major administrative items which are of general interest. The reference committee concurred with the Hyland committee that these comments do not require House of Delegates action but can be handled administratively and are so being handled at the present time. The Hyland committee made ten recommendations on matters of policy which, in its opinion, do require action by the House of Delegates, especially Number 7 which proposed electing the members of the Board of Trustees, one each from designated physician-population areas.

Acting on the Report of the Committee to Study the Heller Report on Organization of the American Medical Association, the House reached the following decisions on ten specific recommendations:

1. The office of Vice President will be continued as an elective office.
2. The offices of Secretary and Treasurer will be combined into one office to be known as Secretary-Treasurer, and that officer will be selected by the Board of Trustees from one of its number.
3. The duties of the Secretary-Treasurer will be separated from those of the Executive Vice President.
4. The office of General Manager will be discontinued, and the new office of Executive Vice President will be established. The latter, appointed by the Board of Trustees, will be the chief staff executive of the Association.
5. The Council on Medical Education and Hospitals and the Council on Medical Service will continue as standing committees of the House of Delegates, but their administrative direction will be vested in the Executive Vice President.
6. The voting members of the Board of Trustees will be limited to eleven—the nine elected Trustees, the President and the President-Elect. The Vice President and the Speaker and Vice Speaker of the House of Delegates will attend all Board meetings, including executive sessions, with the right of discussion but without the right to vote.
7. The House disapproved of the proposal to elect the Trustees from each of nine physician-population regions.
8. The office of Assistant Secretary will be discontinued, and a new office of Assistant Executive Vice President will be established.
9. The Committee on Federal Medical Services will be retained as a committee of the Council on Medical Service and will not become a part of the Council on National Defense.
10. The Speaker of the House will appoint a joint and continuing committee of six members, three from the Board of Trustees and three from the House, to redefine the central concept of AMA objectives and basic programs, consider the placing of greater emphasis on scientific activities, take the lead in creating more

cohesion among national medical societies and study socio-economic problems.

The accepted recommendations were referred to the Council on Constitution and By-laws with a request to draft appropriate amendments for consideration by the House at the 1958 annual meeting in San Francisco.

The Forand Bill

The House condemned the Forand Bill as undesirable legislation, approved the firm position taken in opposition to it and expressed satisfaction that the Board of Trustees has appointed a special task force which is taking action to defeat the bill. In a related action, giving strong approval to Dr. Allman's address at the opening session, the House adopted a statement which said:

"It is particularly timely that our President has so forcefully sounded the clarion call to the entire profession for emergency action. With complete unity, definition and singleness of purpose, closing of ranks with all age groups and elements of our organization we must at this time stand and be counted. Thus we can exert the physician's influence in every possible direction against invasion of our basic American liberties in the form of proposed legislation alleged to compulsorily insure one segment of the population against health hazards at the expense of all."

Health Programs for Hospital Employees

A set of "Guiding Principles for an Occupational Health Program in a Hospital Employe Group" was approved by the House. The guides were developed by a joint committee of the American Medical Association and the American Hospital Association and already had been formally approved by the AHA. They include these statements:

"Employees in hospitals are entitled to the same benefits in health maintenance and protection as are industrial employees. Therefore, programs of health services in hospitals should use the techniques of preventive medicine which have been found by experience in industry to approach constructively the health requirements of employees.

"It is essential that employee health programs in hospitals, as in industry, be established as separate functions with independent facilities and personnel. The fact that hospitals are engaged in the care of the sick as their primary function does not alter the necessary organizational plan for an effective occupational health program.'

Asian Influenza Vaccine

The House considered three resolutions dealing with the Asian influenza immunization program and then adopted a substitute resolution calling attention to "certain inadequacies and confusions in the distribution of vaccines" and directing the Board of Trustees to seek conferences through existing committees "with a view to establishing a code of practices regulating the future distribution of important therapeutic products, so that the best interest of all the people may be served." The resolution pointed out that the American Medical Association already has a joint committee with the American Pharmaceutical Association and the National Association of Retail Druggists, in addition to a liaison committee with the Drug Manufacturers Association.

Medical Rating of Physical Impairment

The House accepted a 115-page "Guide to the Evaluation of Permanent Impairment of the Extremities and Back" which was developed by the Committee on Medical Rating of Physical Impairment as the first in a projected series of guides. The delegates commended the committee for doing a "superb job on this difficult subject" and expressed pleasure that the guides will be published in *The Journal of the American Medical Association.* The guides are expected to be of particular help to physicians in determining impairment under the new disability benefits program of the Social Security Act.

Miscellaneous Actions

Among a wide variety of other actions, the House also:

Directed that a new committee be established in the Council on Industrial Health to study *neurological disorders in industry;*

Noted with approval the establishment of the American Medical Research Foundation, which will initiate and encourage necessary *medical research* and correlate and disseminate the results of studies already under way;

Decided that informational materials which are sent to A.M.A. delegates should also be sent to all *alternate delegates;*

Affirmed that it is within the limits of ethical propriety for physicians to join together as partnerships, associations or other *lawful groups* provided that the ownership and management of the affairs thereof remain in the hands of licensed physicians;

Instructed that the appropiate committee or council should engage in conferences with *third parties* to develop general principles and policies which may be applied to the relationship between third parties and members of the medical profession;

Urged state medical society committees on aging and insurance to make continuing studies of *preretirement financing of health insurance* for retired persons;

Endorsed a suggestion that the Committee on Federal Medical Services sponsor a national conference on *veterans' medical care* during 1958;

Asked the Board of Trustees to study the feasibility of having the Association finance a thorough investigation of the *Social Security* system by a qualified private agency;

Suggested that physicians and their friends make

a vigorous effort to obtain Congressional enactment of the *Jenkins-Keogh Bills;*

Approved the "Suggested Guides to Relationships Between Medical Societies and *Voluntary Health Agencies*";

Strongly recommended that a completely adequate and competent medical department be established in the *Civil Aeronautics Administration* directly responsible to the CAA Administrator, and

Congratulated the General Electric Company for its medical television presentations on the subject of *quackery.*

Opening Sessions

At the Tuesday opening session, Rear Admiral B. W. Hogan, Surgeon General of the U. S. Navy, presented the Navy Meritorious Public Service Citation to Dr. Dwight H. Murray of Napa, California, immediate past president of the Association. Contributions to the American Medical Education Foundation, for financial aid to the nation's medical schools, were presented by four state medical societies: California, $143,043.25; Utah, $10,390; New Jersey, $10,000, and Arizona, $8,040. The Interstate Post Graduate Medical Association of North America gave $1,000, and the Illinois State Medical Society announced that it was adding $10,000 to the $170,450 presented at the New York meeting last June.

Registration

The total registration for the four-day meeting was 6,900, including 2,637 physicians. At the Seattle meeting last year, the total was 6,282 including 2,813 physicians. The two-day snowstorm, with streets and highways blocked off and taxis not even running, accounted for the poor attendance in Philadelphia. On account of the large doctor population around Philadelphia, it was expected that many more would be present.

* * *

We are indebted to Geo. F. Lull, M.D., Secretary of the A.M.A., for portions of this report.

PSYCHIATRIC SYMPTOM FORMATION

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The Ninety-second Annual Session of the Michigan State Medical Society's House of Delegates was held in Grand Rapids, September 23-24-25, 1957.

The House of Delegates:

1. Adopted with thanks the President's Address, the President-Elect's Address, the report of Delegates to the American Medical Association, the Annual Report of the President of Woman's Auxiliary to Michigan State Medical Society, and the Annual Report of the President of Michigan State Medical Assistants Society.

2. The Annual Reports of The Council (including the Annual Reports of Committees of The Council) were adopted as amended. This included approval of bylaws amendments—to Chapter 6 and new Chapter 7—concerning mediation-ethics-grievance, as amended, with deletion of "representation by counsel." Action on The Council Reports also included approval of two of the four recommendations of the Committee on Study of Healing Arts, as follows: (a) That the Michigan State Medical Society Delegates to the AMA House of Delegates be instructed to submit a resolution to the AMA House of Delegates at that body's next session, requesting the referral of the problem of M.D.'s and D.O.'s relationship to the individual constituent state medical societies for action by their individual houses of delegates, and that actions, subsequently taken on this question by these houses, be considered ethical in relation to the AMA Principles of Ethics; (b) That the Michigan State Medical Society agree to having its Legislative Committee meet (annually) when necessary with the like committee of the Michigan Associiation of Osteopathic Physicians to attempt to iron out any mutual legislative problems.

Action on The Council Reports also included approval of Report of Committee on Michigan Medical Service, as amended; also approval of the following plan for the financing of the new MSMS headquarters building:

That to the present $5.00 per member dues allocated for the building fund, an additional $5.00 be levied upon each member for 1958; an additional $5.00 be levied upon each member for 1959; an additional $10.00 be levied upon each member for 1960, and an additional $10.00 be levied upon each member for 1961, the total for four years being $50.00 per member.

Thus the dues in 1958 and 1959 will be $60.00 per member, and in 1960 and 1961, $65.00 per member.

3. Adopted Annual Reports of all Standing Committees and of all Special Committees of the Society; also the report of the Permanent Advisory Committee on Fees which was directed to continue its studies.

4. Elected Paul Van Riper, M.D., Champion, as Michigan's Foremost Family Physician for 1957.

5. Approved the MSMS-sponsored Opinion Study of Pre-paid Medical Care Coverage, including the Report of the Committee on Michigan Medical Service, G. W. Slagle, M.D., Chairman (see November JOURNAL for detailed report).

6. Approved the amended Report of the Committee to Study Comprehensive Pre-paid Insurance Plans, C. I. Owen, M.D., Chairman.

7. *Took action on proposed amendments to the Constitution and By-Laws, as follows:* (a) By-Laws, Chapter 6 and new Chapter 7 re mediation-ethics-grievance—approved as amended (supra, Item 2); (b) Constitution, Article X, Sections 1-2-3, and By-Laws, Chapter 9, Section 1, making Vice Speaker a voting member of The Council and its Executive Committee—approved; (c) Constitution, Article VII and By-Laws, Chapter 8, Section 1, giving representation in MSMS House of Delegates to Sections—referred to 1958 House of Delegates; (d) By-Laws, Chapter 2, Section 1 re regulation of membership—disapproved; (e) By-Laws, Chapter 6, re discipline of members—disapproved.

8. *Adopted resolutions concerning:* (a) Federated fund raising—approved in principle; (b) Honorary Membership to Wm. J. Burns, LL.B.; (c) Referral of healing arts problem to A.M.A.; (d) Expansion of medical school facilities: (e) Training of ambulance drivers; (f) Collection of MSMS dues; (g) Pilot Study of Insurance Reporting; (h) Woman's Auxiliary's sponsorship of Freedom Essay Contest; (i) Commendation to Luther R. Leader, M.D., Detroit; (j) Annual registration of M.D.'s (as amended); (k) Recognition of Pathology under Medicare; (1) Recognition of Pathology in Blue Cross-Blue Shield.

9. Referred to The Council a resoultion re distribution of influenza vaccine.

10. Referred to Michigan Medical Service resolution re Increased Benefits in Michigan Medical Service contracts.

11. *Adopted substitute resolutions concerning:* (a) Establishment of full-time chairs of preventive medicine and public health in Michigan's Medical schools; (b) Creation of Study Committee re Practice Privileges in Public Hospitals.

12. *Took no action on resolutions concerning:* (a) Free choice of physician in all medical service plans. (b) Creation of MSMS Advisory Committee to Michigan Medical Service; (c) Comprehensive medical service plan.

13. Tabled resolution concerning study of relative value schedule of services.

14. *Disapproved resolutions concerning:* (a) Proposed increase in dues for building fund (Thorup); (b) Proposed increase in dues for building fund (Babcock); (c) Merger of Blue Shield-Blue Cross; (d) Separation of Blue Cross-Blue Shield; (e) Creation of national or state clearing committee to investigate new drug claims; (f) Representation on Michigan Medical Service Board; (g) Inclusion of M.D.'s under Social Security; (h) Study of need for third medical school in Michigan; (i) Recommendation to Joint Accreditation Committee to establish new section on special services; (j) Adding physiatrists in present MSMS Radiology-Anesthesiology-Pathology Section; (k) Recognition of Internists; (1) To change MHS-MMS into Indemnity Plans; (m) Limit Blue Shield Contracts to those in Specified Income Limits.

15. *Elected the following officers:*

(a) J. F. Beer, M.D., St. Clair, as Councilor of the 7th District (1962)
(b) E. S. Oldham, M.D., Breckenridge, as Councilor of the 8th District (1962)
(c) D. G. Pike, M.D., Traverse City, as Councilor of the 9th District (1962)
(d) O. J. Johnson, M.D., Bay City, as Councilor of the 10th District (1962)
(e) W. A. Hyland, M.D., Grand Rapids (1959); J. S. DeTar, M.D., Milan (1959); and C. I. Owen, M.D., Detroit (1959), as Delegates to the American Medical Association
(f) W. W. Babcock, M.D., Detroit (1959); E. F. Sladek, M.D., Traverse City (1959); and O. J. Johnson, M.D., Bay City (1959), as Alternate Delegates to the American Medical Association

(g) G. B. Saltonstall, M.D., Traverse City, as President-Elect
(h) K. H. Johnson, M.D., Lansing, as Speaker, House of Delegates
(i) J. J. Lightbody, M.D., Detroit, as Vice Speaker, House of Delegates

16. *Elected to Special Memberships:*

(a) Forty-eight members to Life Membership: (Allegan) H. H. Johnson, M.D.; (Berrien) Edward A. Miller, M.D.; (Gogebic) Charles E. Stevens, M.D.; (Ingham) J. Earl McIntyre, M.D.; (Ionia-Montcalm) Earl P. Bunce, M.D., Oscar P. Geib, M.D., Alfred E. Hollard, M.D., Perry C. Robertson, M.D; (Kent) Earle J. Byers, M.D., Ernest W. Dales, M.D., Alfred Dean, M.D., John Ver Meulen, M.D., William R. Vis, M.D.; (Lenawee) W. B. Hornsby, M.D., Philip P. Sayre, M.D., Chad A. Van Dusen, M.D.; (Saginaw) Alexander R. McKinney, M.D., John T. Sample, M.D.; (Washtenaw) Frederick A. Coller, M.D., Emory W. Sink, M.D.; (St. Clair), George Van Rhee, M.D.; (Wayne); Effie E. Arnold, M.D., T. H. Edward Best, M.D., F. W. Bramigk, M.D., Philip H. Broudo, M.D., Duncan Campbell, M.D., William J. Cassidy, M.D., Aaron L. Chapman, M.D., Don A. Cohoe, M.D., Ray S. Dixon. M.D., Clair L. Douglas, M.D., Edward F. Dowdle, M.D.. Clarence H. Eisman, M.D., Ray L. Fellers, M.D. William Gramley, M.D., Charles W. Husband, M.D., Zeno L. Kaminski, M.D., Charles S. Kennedy, M.D., Hugh A. McFadyen, M.D., Edward J. O'Brien, M.D., Jacob R. Rupp, M.D., Rene J. St. Louis, M.D. Stelios N. Sakorraphos, M.D., Simon H. Sauter, M.D., Jesse G. Slaugenhaupt, M.D., Elisha J. Tamblyn, M.D., Delma F. Thomas, M.D., Harriet E. McLane, M.D.

(b) Eleven members to Retired Membership: (Oakland County) Burton M. Mitchell, M.D.; (Wayne) Roland M. Athay, M.D., Carl C. Birkelo, M.D., Harry G. Clark, M.D., Floyd B. Knapp, M.D., Arlington F. Lecklider, M.D., Walter H. Squires, M.D., Hugh Stalker, M.D., Henry B. Steinbach, M.D., Cleary N. Swanson, M.D., William A. Thompson, M.D.

(c) Fifty-eight members to Associate Membership: (Alpena) Jerry Miller, M.D.: (Chippewa-Mackinac) LeRoy A. Futterer, M.D.; (Hillsdale) William O. Michel, M.D.; (Gratiot County) LeRoy F. Von Lackum, M.D.; (Oakland) Juliette Seelye Karow, M.D.; (Washtenaw) John N. Bicknell, M.D., George E. Block, M.D., Fred G. Blum, Jr., M.D., Philip D. Brooks M.D., Donald C. Bullington, M.D., Charles W. Butler, Jr, M.D., C. William Castor, Jr., M.D., William A. Challener, III, M.D., George W. Cheek, Jr., M.D., Alton J. Coppridge M.D., William M. Cutler, M.D., James H. Geist, M.D., Robert I. Goldsmith, M.D., Carol E. Goodman, M.D., Frank H. Goodrich, M.D., Donald J. Holmes, M.D., Albert S. Jacknow, M.D., Robert S. Jampel, M.D., Edmund M. Krigbaum, M.D., Graydon A. Long, M.D., John C. Nixon M.D., Gerald A. O'Connor, M.D., Alden R. Parker, M.D., Prasanna K. Pati, M.D., Gus A. Raney, M.D., Melvin J. Reinhart, M.D., F. Dale Roth, M.D., Arthur S. Shufro, M.D., Carlson R. Speck, M.D., Donald Y. Stewart, M.D., Thomas P. Stratford, M.D., Emanuel Tanay, M.D., Ralph W.. Theobald, M.D., Robert L. Timmons, M.D., John B. Tisserand, Jr., M.D., John S. Tytus, M.D., John D. Werley, M.D., Donald K. Williams, M.D., James H. Winkler, M.D., James A. Wood, M.D., William S. Wilson, M.D.; (Wayne) Donald R. Brock, M.D., Paul Dzul, M.D., David French, M.D., Eugene P. Frenkel, M.D., Alex Gaynor, M.D., Frank L. Hoagland, M.D., L. W. Hull, M.D., William V. Kyle, M.D., Charles West, M.D., John D. McKinnon, M.D., Donald R. Nielson, M.D., Melvin K. Pastorius, M.D.

PLANNING TO ATTEND?

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Michigan State Medical Society

Ninety-second Annual Session

DIGEST OF PROCEEDINGS OF THE HOUSE OF DELEGATES

MONDAY MORNING SESSION

September 23, 1957

The ninety-second annual session of the House of Delegates of the Michigan State Medical Society was held at the Pantlind Hotel, Grand Rapids, Michigan, on September 23-25, 1957, convened at 10:25 a.m., K. H. Johnson, M.D., Speaker of the House, presiding.

I. RECORD OF ATTENDANCE

Member-at-Large	*Meetings*					
(Immediate MSMS Past President)	*1st*	*2nd*	*3rd*	*4th*	*5th*	*6th*
Wm. S. Jones, M.D.	x	x	x	x	x	x
Honorary Member						
A. V. Wenger, M.D.	x	x	x	–	x	–
County and Delegate						
ALLEGAN						
L. F. Brown, M.D.	x	x	x	x	x	–
ALPENA-ALCONA-PRESQUE ISLE						
E. S. Parmenter, M.D.	x	x	x	x	x	x
BARRY						
A. B. Gwinn, M.D.	x	x	x	x	x	x
BAY-ARENAC-IOSCO						
D. A. Bowman, M.D.	x	x	x	x	x	–
O. J. Johnson, M.D.	x	x	x	x	x	x
BERRIEN						
Noel J. Hershey, M.D.	x	x	x	x	x	x
D. W. Thorup, M.D.	x	x	x	x	x	x
BRANCH						
R. J. Fraser, M.D.	x	x	x	x	–	x
CALHOUN						
Harvey C. Hansen, M.D.	x	x	x	x	x	x
James W. Hubly, M.D.	x	x	x	x	x	x
CASS						
S. L. Loupee, M.D.	x	x	x	x	–	–
CHIPPEWA-MACKINAC						
W. F. Mertaugh, M.D.	x	x	x	x	x	x
CLINTON						
Franklin W. Smith, M.D.	x	x	x	x	x	x
DELTA-SCHOOLCRAFT						
James R. Dehlin, M.D.	x	x	x	x	x	x
DICKINSON-IRON						
D. R. Smith, M.D.	x	x	x	x	x	x
EATON						
B. P. Brown, M.D.	x	x	x	x	x	x
GENESEE						
G. E. Anthony, M.D.	x	x	x	x	x	–
F. W. Baske, M.D.	x	x	x	x	x	x
C. W. Colwell, M.D.	x	x	x	x	x	x
F. D. Johnson, M.D.	x	x	x	x	x	x
J. E. Livesay, M.D.	x	x	x	x	x	x
GOGEBIC						
J. E. McEnroe, M.D.	Not represented					
GRAND TRAVERSE-LEELANAU-BENZIE						
D. G. Pike, M.D.	x	x	x	x	x	x
GRATIOT-ISABELLA-CLARE						
E. S. Oldham, M.D.	x	x	x	x	x	x
HILLSDALE						
A. W. Strom, M.D.	x	x	x	x	x	x
HOUGHTON-BARAGA-KEWEENAW						
P. S. Sloan, M.D.	x	x	x	x	x	x
HURON						
C. W. Oakes, M.D.	x	x	x	x	x	x
INGHAM						
L. A. Drolett, M.D.	x	x	x	x	x	–
H. W. Harris, M.D.	x	x	x	x	x	x
F. L. Troost, MD	x	x	x	x	x	x
J M. Wellman, M.D.	x	x	x	x	x	x
IONIA-MONTCALM						
R. E. Rice, M.D.	x	–	x	x	x	x
JACKSON						
H. W. Porter, M.D.	x	x	x	x	x	–
W. A. Wickham, M.D.	x	x	x	x	x	x
KALAMAZOO						
Sherman E. Andrews, M.D.	x	x	x	x	x	–
Frederick C. Ryan, M.D.	x	x	x	x	x	x
Wm. A. Scott, M.D.	x	x	x	x	x	x
KENT						
F. S. Alfenito, M.D.	x	x	x	x	x	x
W. C. Beets, M.D.	x	x	x	x	x	x
J. T. Boet, M.D.	x	x	x	x	x	x
J. R. Brink, M.D.	x	x	x	x	x	x
F. M. Burroughs, Jr., M.D.	x	x	x	x	x	x
G. W. DeBoer, M.D.	x	x	x	x	x	x
R. A Rasmussen, M.D.	x	x	x	x	x	x
LAPEER						
D. J. O'Brien, M.D.	x	x	x	x	x	–
LENAWEE						
G. C. Wilson, M.D.	x	x	x	x	x	–
LIVINGSTON						
H. C. Hill, M.D.	x	x	x	x	–	x
LUCE						
D. C. Adams, M.D.	Not represented					
MACOMB						
Sydney Scher, M.D.	x	x	–	–	–	x
Edward G. Siegfried, M.D.	x	x	x	x	x	x
MANISTEE						
Robert R. Garneau, M.D.	x	x	x	x	x	x
MARQUETTE-ALGER						
A. S. Narotzky, M.D.	x	x	x	x	x	x
MASON						
H. G. Bacon, M.D.	x	x	x	x	x	x
MECOSTA-OSCEOLA-LAKE						
Paul Ivkovich, M.D.	x	x	x	x	x	x
MENOMINEE						
J. R. Heidenreich, M.D.	x	x	x	x	x	x
MIDLAND						
Harold L. Gordon, M.D.	x	x	–	x	x	x
MONROE						
S. Newton Kelso, M.D.	x	x	x	x	x	–
MUSKEGON						
D. R. Boyd, M.D.	x	x	x	x	x	–
N. W. Scholle, M.D.	x	x	x	x	x	–
NEWAYGO						
J. Paul Klein, M.D.	x	x	x	x	x	x
NORTH CENTRAL						
L. F. Hayes, M.D.	x	x	x	x	x	x
NORTHERN MICHIGAN						
J. R. Rodger, M.D.	–	x	x	x	x	x
OAKLAND						
E. W. Bauer, M.D.	x	x	x	x	x	x
E. B. Cudney, M.D.	x	x	x	x	x	x
H. A. Furlong, M.D.	x	x	x	x	x	x
Paul T. Lahti, M.D.	x	x	x	x	x	x
John M. Markley, M.D.	x	x	x	x	x	x
P. E. Sutton, M.D.	x	x	x	x	x	x
W. J. Zimmerman, M.D.	x	x	x	x	x	x
OCEANA						
W. G. Robinson, M.D.	Not represented					
ONTONAGON						
W. F. Strong, M.D.	x	x	x	x	x	x
OTTAWA						
Otto van der Velde, M.D.	x	x	x	x	–	x
SAGINAW						
E. C. Galsterer, M.D.	x	x	x	x	x	x
J. P. Markey, M.D.	x	x	x	x	x	–
A. C. Stander, M.D.	x	x	x	x	x	x
SANILAC						
K. T. McGunegle, M.D.	x	x	x	x	x	–
SHIAWASSEE						
Claude L. Weston, M.D.	x	x	x	x	x	x
ST. CLAIR						
Joseph F. Beer, M.D.	x	x	x	x	x	x
ST. JOSEPH						
S. A. Fiegel, M.D.	x	x	x	x	x	x
TUSCOLA						
L. L. Savage, M.D.	x	x	x	x	x	x
VAN BUREN						
F. J. Loomis, M.D.	x	x	x	x	x	–

WASHTENAW						
Gerhard H. Bauer, M.D.	x	x	x	x	x	x
O. K. Engelke, M.D.	–	–	x	x	x	x
Harold F. Falls, M.D.	x	x	x	x	x	x
Theodore G. Kabza, M.D.	–	x	x	–	–	–
R. W. Teed, M.D.	x	x	x	x	x	x
V. M. Zerbi, M.D.	x	x	x	x	x	x
WEXFORD-MISSAUKEE						
Robert V. Daugherty, M.D.	x	x	x	x	x	x
WAYNE						
Sidney Adler, M.D.	x	x	x	x	–	–
Raphael Altman, M.D.	x	x	x	–	–	–
Warren W. Babcock, M.D.	x	x	x	x	x	x
Gaylord S. Bates, M.D.	x	x	x	x	x	x
Louis J. Bailey, M.D.	x	x	x	x	x	x
John G. Bielawski, M.D.	x	x	x	x	x	x
James B. Blodgett, M.D.	x	x	x	x	x	x
Wm. L. Brosius, M.D.	x	x	x	x	x	x
Clarence L. Candler, M.D.	x	x	x	x	x	–
Wm. S. Carpenter, M.D.	x	x	x	x	–	–
Ralph R. Cooper, M.D.	x	x	x	x	x	–
Russell T. Costello, M.D.	x	x	x	x	x	–
Milton A. Darling, M.D.	x	x	x	x	x	x
Harry F. Dibble, M.D.	x	x	x	x	–	–
Laurence S. Fallis, M.D.	x	x	x	x	x	–
Harold B. Fenech, M.D.	x	x	x	x	x	x
Edwin H. Fenton, M.D.	x	x	x	x	x	x
Russell F. Fenton, M.D.	x	x	x	x	x	x
George S. Fisher, M.D.	x	x	x	x	x	x
James D. Fryfogle, M.D.	x	x	x	x	–	–
Perry C. Gittins, M.D.	x	x	x	x	x	x
Clyde K. Hasley, M.D.	x	x	x	x	x	x
Leslie T. Henderson, M.D.	x	x	x	x	x	x
Joseph Hickey, M.D.	x	x	x	x	x	x
Louis Jaffe, M.D.	x	x	x	x	x	x
Joseph A. Kasper, M.D.	x	x	x	x	x	x
Earl G. Krieg, M.D.	x	x	x	x	–	–
Edward H. Lauppe, M.D.	x	x	x	x	x	x
Max L. Lichter, M.D.	x	x	x	x	x	x
E. C. Long, M.D.	x	x	x	x	x	x
Robert C. Lytle, M.D.	–	x	x	x	x	x
Robert L. Novy, M.D.	x	x	x	x	x	x
Eugene A. Osius, M.D.	x	x	x	x	x	x
C. I. Owen, M.D.	x	x	x	x	x	x
Alice E. Palmer, M.D.	x	x	x	x	x	–
Ralph H. Pino, M.D.	x	x	x	x	x	x
Alvin E. Price, M.D.	x	x	x	x	–	–
William S. Reveno, M.D.	x	x	x	x	–	–
Francis P. Rhoades, M.D.	x	x	x	x	x	x
Albert D. Ruedemann, Sr., M.D.	x	x	x	x	x	–
Charles W. Sellers, M.D.	x	x	x	x	x	–
William L. Sherman, M.D.	x	x	x	x	x	x
Carl J. Sprunk, M.D.	x	x	x	x	–	x
Claire L. Straith, M.D.	x	x	x	x	–	x
David I. Sugar, M.D.	x	x	x	x	–	–
Roger V. Walker, M.D.	x	x	x	x	x	x
Milton R. Weed, M.D.	x	x	x	x	x	x
Robert K. Whiteley, M.D.	x	x	x	x	–	–
Joseph A. Witter, M.D.	x	x	x	x	x	x
Donald C. Young, M.D.	x	x	x	x	x	–

IN MEMORIAM

Each year at this time we announce the names of former members of this House who have passed away during the previous year.

Allegan County: Olin H. Stuck, M.D., Otsego.

Saginaw County: J. W. MacMeekin, M.D., Saginaw.

In addition, fifty-nine members of the Michigan State Medical Society have passed away since last we met. The Speaker would like the House to stand for a moment in silence.

II. PRESIDENT'S ADDRESS

By Arch Walls, M.D.

This week I am bowing out as the President of our State Medical Society. Although the President's job is sometimes thought of as that of a figurehead, it is an honor, and I have tried to live up to your expectations and be a good one. At times it has been hectic, tiring and a bit discouraging; then I would think of the many fine men who stood by me—sincere good doctors whom I would never have known as close friends had I not held this position. Then I knew the hours away from my home and my practice had borne fruit for me.

Certainly there is no financial gain—there is nothing tangible to hold in one's hand; it is something far greater than that. Only a man who has sacrificed his own desires to help make his profession a better one can understand the personal satisfaction derived.

I wish to thank all the men in our Society who have worked with me to make my leadership a success. Most of all, I wish to express my gratitude to the hard-working members of The Council. These men need, and have, a high degree of unselfishness, a feeling of indebtedness to their profession, and the desire to give of themselves in return.

These qualities are what it takes to make good members of our Council. Our progress is measured by the policies formulated by our Council. Thus, I feel that only top men can plan our future advances well. There is no room for petty bickering, no time for personal gain. Only big men—and I don't mean physically—can handle the problems. We have had high-caliber men in the past. Let's keep the quality high.

This past year we have tried to extend our open door policy. We have it open now, and I hope it will swing wide to accomplish far more. This year we learned to know men of other professions. We liked them, understood their problems better, tried to find out what they didn't like about us, and why. It was enlightening, to say the least.

We only laid the foundation this year. I hope we can build a strong bond between our medical profession with all the others so that as problems arise we can sit down with them and work things out agreeably and well. We need their help, and I have learned that they would like ours.

We have accomplished quite a bit at our State meetings, and they have been beneficial to all of us. However, I don't believe there has been enough effort made by all of us, when we return to our county societies and our hospital staffs, to enlighten other doctors who have not attended our State meetings. If we would spend a little time to tell them what the State Society has tried to do, the problems that confronted us, there would be more interest aroused—a better understanding achieved.

I take great pride in the knowledge that Michigan doctors received national recognition in the polio program. The way it started out, it could have been a debacle; but it turned out to be a triumph because our entire profession throughout the State made it a success. That united effort proved to me that, acting together, we could accomplish almost anything.

There are vitally important things for us to do. For example, the mental health situation is desperately in need of a thorough study by us. We have just scratched the surface of that one; but, as in the other problems, if the whole medical profession will co-operate we should be able to find a better way to take care of this number one problem.

Sometimes, with all our professional duties and problems, we as doctors forget that we also have duties and responsibilities as citizens. We become very unhappy with conditions affecting our lives outside of medicine. But do we do much about it? I think not. Doctors are well educated and, as a whole, intelligent, aggressive men. Some of our ability certainly can be used to advance new laws and to improve our government in order to make this a better state in which to live.

I feel that we have fallen far short in our contributions as citizens. It is easy for us to say, "I haven't the time; let others who aren't so busy do the job," but this is only a poor excuse made by a poor citizen. As a State Society we have great potential to wield influence to the betterment of this great State.

In finishing, let me tell you again how fine you have all been in your efforts to make my job easier. I deeply appreciate your friendship, and I hope that down through the years we can continue to work together to make this the greatest medical society in the country. [*Applause*]

* * *

Dr. Walls' address was referred to the Reference Committee on Officers' Reports.

III. PRESIDENT-ELECT'S ADDRESS

By George W. Slagle, M.D.

As we begin our 92nd annual session today and start down the road of the coming year in our Society's progress, I would like to pause a few moments and reflect on what has transpired this past year.

As your President-elect it was my good fortune to be an observer and a part of many gatherings that were held in the best interests of our Society. This has been a big year for all of us, as reports from our different committees, The Council, our officers, and the Opinion Survey on Prepaid Medical Care will bring forth. It may well go down in history as a pivotal year in the development of our philosophy of how best to supply the finest medical care for the public.

Progress has been made. Long steps forward have been taken. Much more needs to be done. The immediate future is the time that our findings and decisions will need to be implemented. Other problems and crises undoubtedly will arise and will have to be solved. None of us carries a crystal ball—and even if we did, we wouldn't know how to read it; hence, we cannot accurately predict how the coming year will evolve. However, by reviewing and appraising what has been done this past year—which is exactly what this House will do during these two days—basic concepts can be formed and a projected course of action laid down. It is important that this be done, and it is doubly important that our membership be united behind the policies that this House declares itself in favor of.

Hundreds of you and your confreres have given liberally of your time and unstintingly of your efforts in the past to make our Society what it is—one that is held in high esteem throughout this country, one of which we can justly be proud. I know that the same will be evident in the future. The letters I have received from many of you, pledging your support and co-operation in the year ahead, have been soul-warming and give me the strength to look forward to the challenge with hope and confidence rather than with fear and trepidation.

We are fortunate in that we have sincere, intelligent and dedicated men of our profession as members of our Council and of this House of Delegates. Your officers in the past have reflected your keen judgment in their selection, and I am sure the future will not be different.

Through my association with much wiser heads than my own this past year, and from observing progress made, and from watching trends develop, I feel that these next years will be important ones to our profession. If so, what can our Society do to see that the best interests of the public are served?

Continuation of the open door policy.—The so-called "open door policy" of the Michigan State Medical Society, as so aptly proposed last year by our fine President, Dr. Walls, has met with success and must be a continuous policy of this organization. Meetings with representatives of interested groups, labor, management, farmers, government, and so on, have been held by your officers and committees, and much good and mutual respect and understanding has resulted. This we should carry on.

Our opinion survey approach to the public is an extension of this policy. We might term it the "research policy." It is our recommendation that necessary surveys of this nature be repeated in the future as times dictate and, further, that we expand our research activities through related studies in the health and insurance fields. We feel that this is an obligation of ours to the public. Also, we feel that a large majority of our members agree that this is true and will be willing to support it both actively and financially.

The days of being passive in these problems is past. We must assume an active leadership! Who knows best the medical needs of the public? The doctors of medicine! So, we are, and must continue to be, partners with the people in providing the methods for supplying such care.

Ethics.—Another aspect of seeing that the people receive the best of medical care falls within the field of ethics. Ethics, or codes of ethics, are formulated for the protection of someone. I want to emphasize that medical ethics are for the protection of the public, for each individual member of our great nation, and not for any special group, clique or segment of the population. In this discussion I refer to only one part of our ethics; but many of us feel that it is actually the heart and soul of our basic concept of the philosophy of medicine that has been our heritage throughout the years, namely, the free choice of physician.

Our profession must become united in our fight to preserve this basic right of the individual to choose his own physician. We must fight for this, not against something. With this free choice of physician naturally must go the right of the physician to choose whom he will serve; but once the patient is accepted by the doctor, the doctor must discharge his obligation. The right of the physician to treat that patient in the manner that his training and best judgment dictates must not be lost. Any endeavor by a third party to disturb this basic concept must be actively condemned.

If wishing to maintain status quo on this problem is "against progress," then I am willing to stand up and be counted and to fight for that fundamental concept. In certain areas of our country plans with third-party intervention abridging this basic right have been in operation for several years. Others are being planned.

The problem is so important throughout this country that at the June meeting of the American Medical Association in New York City, five resolutions dealing with it were introduced on the floor of the House of Delegates. They urged that participation of doctors of medicine in any of these third-party plans be considered unethical. A modified concept was approved.

This House of Delegates, and our Society, must be mindful of our responsibilities here and must give it careful consideration now and through the months to come. We must not be hesitant to fight for what we think is right.

Association of professions.—The past few years have brought to the attention of many of us that if social evolution continues as it has, the time may come when professions, as such, may cease to exist. If more and more supervision and direct control over our profession becomes the rule, we will then become trades or guilds. A profession now has the right to set up its own standards of quality, to choose when and how they will offer services, to whom they will make these services available, and to set and collect their fees.

It seems to me there are many areas at times where the public would be better served if there were an active organization of the various professions made up of duly elected representatives from the individual professions. It might be considered as a "union"—spelled with a small "u"—of the professions.

In a general sense, the medical profession is a union.

We are an association of people who are bound together for a purpose—for the common welfare and benefit of our patients—to give service and to advance the science of medicine. Is there any reason why other similar unions with similar high and unselfish aims should not join with us to solve mutual problems involving professional rights?

While we have been preoccupied with the scientific endeavors of our organizations, we have not thought about banding together as the units within industry and units within labor have banded themselves together across the board. Such a union of professional groups or persons could do much to protect professionalism and all of the many values which professionalism has.

Many problems of importance to the professions as a group might well be solved more easily and to the best interests of the state and community. I believe that if the Medical Society were to suggest such a plan to the other professions, and to invite open discussion, it might well become consummated.

Appraisal of our state committees.—A New York consulting firm recently made a survey of medical society activities, including committee structure. Its report indicated that the Michigan State Medical Society, among all the states, had the highest number of committees (sixty-one) not including numerous subcommittees. This was forcibly brought to my attention in recent weeks while making appointments to certain of these committees. The report suggested that more efficiency would result from a better integration of our State Society committees.

MSMS has three types of committees: (1) Committees of the House of Delegates, appointed by the Speaker; (2) committees of the Michigan State Medical Society, appointed by the President; (3) committees of The Council, appointed by the Council Chairman. My remarks here refer only to the second and third groups—committees of the MSMS and committees of The Council.

Obviously, duplication and overlapping of activities and studies have grown (like Topsy) among our sixty-one committees. For example, we have five committees dealing generally with Michigan Medical Service and with fee schedules—and that does not include two committees on these subjects appointed by the 1956 House of Delegates. Efficiency suggests that one, or perhaps two at the most, should be charged with these responsibilities. Another example is the Permanent Conference Committee (which handles liaison with hospitals and nurses) and the overlapping Hospital Relations Committee.

I will spare you other illustrations, but will present to the Reference Committee a list of our Michigan State Medical Society and Council committees and my thoughts on the subject.

Suffice it to say, our committee structure needs some serious study to make it more modern and efficient. Therefore, to conserve the valuable time of these hundreds of our self-sacrificing members who serve on committees, and to save expense to the Society, I respectfully offer the following recommendation:

(This may seem incongruous, but sometimes one has to use an "antidote of the same" to correct an unsatisfactory condition.) I recommend that the Chairman of The Council be instructed by the House of Delegates to appoint a Special Evaluation Committee to survey our entire committee structure with a view to streamlining it, this Evaluation Committee to render a final report and recommendations to the House of Delegates in September, 1958; and that the Speaker, the incoming President-elect, and The Council Chairman (who are responsible for the appointment of committees) be named among the members of this Special Evaluation Committee.

In conclusion, I wish to reemphasize that by learning from the past we can look to the future with hope and confidence. You have one of the finest society organizations in the country, one of which we all can be justly proud. It is not a one-man or even a small-group affair, but one that is the result of the combined effort of each of us, of each of our 6,400 members. It must remain that way.

With the continued help of all, the Michigan State Medical Society will remain a leader in the profession, and the State and nation will benefit thereby.

MSMS COMMITTEE STRUCTURE

POSTGRADUATE MEDICAL EDUCATION

Postgraduate Medical Education
Scientific Radio
Courses in Medical Economics and Ethics

PREVENTIVE MEDICINE

Preventive Medicine
Rheumatic Fever Control
Cancer Control
Maternal Health
Venereal Disease
Tuberculosis
Mental Health
Child Welfare
Geriatrics
Industrial Health
Iodized Salt
Prevention of Highway Accidents
National Defense
Rural Medical Service
Blood Banks
Periodic Health Appraisal

*[Committees in italics are committees of The Council. All others are committees of MSMS.]

PUBLIC RELATIONS

Public Relations
Legislative
Advisory to Woman's Auxiliary
Advisory to Michigan State Medical Assistants Society
Beaumont Memorial
Liaison with Univ. of Michigan
Liaison with Mich. St. Pharm. Assn.
Awards
Liaison with Veterans
Liaison with State Bar
Liaison with St. Bd. of Reg. in Medicine
Liaison with St. Exec. Office
WCMS Film
Liaison to Mich. Psy.
Healing Arts Study
Permanent Conf. Comm.

MEDICAL ECONOMICS

Study Comm. on Fee Schedules for MMS [Hull]
Arbitration
Ins. Studies
Mich. Med. Service [Slagle]
Liaison with MMS [Wellman]
Hospital Relations
M.D. Placement
Basic Science Act
Periodic Health Exams in Hospitals
Big Look (and Site)
V.A. Home Town Med. Care Program
Uniform Fee Schedule for Govt. Agencies
Package Arrangements

MEDIATION, ETHICS AND GRIEVANCE

Ethics
Mediation
Study of M-E-G

*[Committees in italics are committees of The Council. All others are committees of MSMS.]

HOUSE OF DELEGATES COMMITTEES

Committee on Use of the Word "Clinic
Committee to Study Comprehensive Prepaid Plans
Permanent Advisory Committee on Fees

Reference Committees on: Officers' Reports; Reports of The Council; Reports of Standing Committees; Reports of Special Committees; Constitution and Bylaws; Resolutions; Rules and Order of Business; Legislation and Public Relations; Hygiene and Public Health; Medical Service and Prepayment Insurance; Miscellaneous Business; Special Memberships; National Defense and Disaster Planning; Executive Session.

The six basic categories indicated above could be called "commissions"; they could be appointed to stimulate and integrate action of the committees in their particular category. They could be composed of an appointed chairman plus the chairmen of each of the committees in that category (as has been the successful experience for years of the MSMS Preventive Medicine Committee); with the privilege to the appointing officer to add additional members as need be.

Further, the Special Evaluation Committee may wish to consider that all committeemen be appointed for a specific number of years—with a time limit for service

on a particular committee. Thus, men who show great ability would be moved up, and their places on committees would be taken by new talent with new ideas and new drive.

Subcommittees.—Any committee would have the privilege of appointing task groups to accomplish specific purposes.

In a word, MSMS would have five basic commissions, as many committees under the commissions as required, and task groups under the committees for specific one-punch projects.

* * *

Dr. Slagle's address was referred to the Reference Committee on Officers' Reports.

THE SPEAKER: Dr. C. I. Owen, Chairman of the Committee to Study Comprehensive Prepaid Insurance Plans, a Committee that was authorized by resolution of the House of Delegates last year and appointed by the Speaker, are you ready to report?

IV. REPORT OF COMMITTEE TO STUDY COMPREHENSIVE PREPAID INSURANCE PLANS

C. I. OWEN, M.D. (Wayne): All of you have received a copy of the report ordered by the original resolution, dated July 15. The report was made about July 1 and was agreed to unanimously by the various members of the Committee, but I believe everyone reserves the right to change their minds if they wish. Therefore, it may not be unanimous.

I wish to thank sincerely the members of the Committee, because they worked diligently and well, sometimes too diligently for the good of their own practice. I wish to thank Dr. DeBusk of Grace Hospital, who furnished the stenographic help and the mimeographing services that prepared all of these reports. We also arranged to meet and talk with members of the hospital group.

I also wish to thank Mr. Jay Ketchum and his staff, who were very free with their time and help. I don't know what we would have done without Jay.

* * *

Your Committee, appointed by the Speaker, has conducted the study as ordered by the House and begs to submit this report which embodies a brief exposition of the situation, some of its problems and a number of specific proposals.

In our deliberations many people were consulted, such as officials of industry, labor unions, hospitals and Blue Shield. We were surprised to learn that many physicians did not understand the basic difference between the commercial carriers and Blue Shield (except that Blue Shield is run by the doctors) nor the difference between an indemnity type of insurance and a service contract. We learned that few of our MSMS members realize how easy it would be for a large corporation to make "rough sledding" for Blue Shield by using other insurance plans to cover its employes, nor how easy it would be for a large union to seriously impair our organization's service to the people.

Early in our deliberations we found that the cost (and increasing cost) of hospitalization and its insurance programs constitutes a major problem. Since hospitals occupy a very important and integral part of our existence, it became impossible to think of comprehensive prepaid medical care without considering in the same breath hospitalization insurance and its cost.

Many people, including some of our own members, fail to distinguish between hospital and medical care insurance. Everyone, including Uncle Sam as a tax collector, correctly includes hospitalization costs as a part of their total medical expense. Most insurance packages include both hospital and medical care as a co-ordinated unit. If packages are more or less restricted, the hospital feature is rarely left out. We learned that about 75 per cent of all patients entering hospitals for acute illness have some form of insurance paying some or all of their hospital cost.

This, of course, indicates excellent progress and has allowed many people to have better and more medical care. But it has produced some rather serious problems, the principal one being the persistent gradual increase in hospital costs and rates, reflecting itself in a gradual increase in Blue Cross premiums. The latter has reached the point of serious consumer resistance. One group we interviewed informed us that if there should be another increase in the near future a substantial number of their members would withdraw. At all levels and from many people, many complaints were heard and much information gathered about the misuses and abuses of both hospital and medical insurance.

It should be recalled that both Blue Shield and Blue Cross were developed originally to alleviate catastrophic costs to the patients, to allow more and better medical care and hospitalization, to stem the onslaught of government medicine and to assure payments to doctors and hospitals. All of these aims have been accomplished to a great degree but not without the development of two problems: (1) over hospitalization and (2) over utilization, which eventually could help put the costs of both medical and hospital care beyond the reach of the average consumer. These arise from four sources as follows: (a) the patient who insists on staying longer than necessary for his own or his family's convenience; (b) the hospital whose prime interest is to keep its beds occupied at a guaranteed income; (c) pressure groups who curry favor with their constituents; and (d) doctors who succumb to unreasonable demands. The danger is all the more obvious when one realizes how many features of the original Murray Wagner Dingell Bill have been enacted into law. One of our consultants frankly estimated that the cost of hospital insurance could be reduced 25 per cent if all of the over-uses could be eliminated.

In Michigan there is no legal definition of what constitutes a hospital. There is no line drawn between nursing homes, medical hotels, a home with a few rooms and an operating room and a hospital where full facilities are available. Neither are there any laws which regulate, classify or control hospitals (except for maternity care). This results in a real problem from the standpoint of insurance coverage, as well as in some rather poor service to patients. This situation alone deserves great consideration and attention.

Thus, some of our recommendations will concern hospitals and our relationship with them. One of our recommendations referable to increased coverage by medical insurance will help reduce some of the hospital utilization.

One of the most serious and unfair factors that we studied arose in the comparisons of participating and non-participating physicians in the Blue Shield program. The participating physician is the backbone of the entire program (and if no one participated it could not exist). He agrees to abide by certain rules concerning fees and fee schedules. The nonparticipating physicians are termed by some as "free riders." They agree to nothing, follow no rules and have many of their fees collected by Blue Shield. We think this is very unjust and have a recommendation which would be helpful in correcting the condition.

The question of extra fees over and above the Blue Shield schedule is a serious and annoying one to many people and constitutes a major problem. The average policyholder does not understand his contract and nearly always expects more than the contract provides. An extra charge above the Blue Shield contract frequently begets more ill-will than it could possibly be worth. Unless there is an advance understanding, the patient is apt to be annoyed and distrustful. On the other hand, physicians often think the fee sched-

ules are unrealistic and are upset when extra fees are not available or forthcoming. A frank discussion in advance with the patient will prevent most complaints.

We were told by those who originally worked out the fee schedule that it was designed as an average and not as a minimum or maximum. In usage it has proved to be the minimum. It must be remembered by everyone that a great advantage in fee collection results from Blue Shield. By record, Blue Shield fees are collected 100 per cent. Who can match this when patients are billed directly? This serves to emphasize the great value of a service contract versus an indemnity one. Hence, there should be some advantage to those who participate.

There was some discussion about income limits and extra charges on the basis of income higher than the contract designations. There appears to be no standard method for determining family income, especially when more than one member is working. No satisfactory method exists for determining the value of a farmer's income that derives from home consumption of his own products.

There was some discussion about two small but important segments of our populace: (1) indigents and (2) aged people, not covered by any program at the present time. We have a recommendation in this regard.

Recommendations

1. That Michigan Medical Service be continued as a voluntary pre-paid service benefit plan.
2. That nonparticipating physicians collect their fees directly from the patient and that the patient be reimbursed by Michigan Medical Service as per fee schedule.
3. That a broad coverage medical service program be developed by Michigan Medical Service to cover those in advanced years and indigents. This might require contracts with welfare and relief agencies but would be extremely valuable in the preservation of the free choice of physician and in maintaining good physician-patient relationship.
4. That Michigan Medical Service benefits be extended at this time to include:
 (a) Office surgery.
 (b) Diagnostic x-ray on both an in- and outpatient basis.
 (c) Diagnostic laboratory procedures on both an in- and outpatient basis.
 (d) Therapeutic x-ray and radium.
 (e) Physiotherapy on both an in- and outpatient basis.

This contract would, by necessity, carry with it appropriate deductible and co-insurance features, probably some ceiling and strict definitions. There would, of necessity, be specific designations of tests and procedures covered.

5. That certain contracts be made immediately available and sold to groups with 75-80 per cent coverage. Studies and figures have been made by Michigan Medical Service Management and are complete.
 (a) The present basic contract, $2,500-$5,000 and $6,000 be retained for all subscribers.
 (b) Full coverage—home, office, hospital—a complete service be offered.
 (c) An extended service to include outpatient and office surgery; diagnosis, including laboratory procedures, EKG, BMR, EEG, heart and blood; consultations; diagnostic and therapeutic x-ray and radium; physical medicine; anesthesia and assistance in certain operations.
 (d) All of these services and especially Numbers 2 and 3 could be offered as $25.00 and $50.00 deductible, co-insurance or full pay.

This offering would meet the ideas expressed by every critic and each group would have unlimited choice, to suit its own needs or desires.

6. That a joint study committee of the House of Delegates of the MSMS and the Michigan Hospital Association be established, whose specific duty it shall be to develop on a state-wide basis, a program of hospital classification, control and accreditation to the end that proper and just insurance relationships can be worked out.
7. That there be created in each hospital, a committee of the staff known as insurance audit and control committees, whose duties shall be as follows:
 (a) To study prepaid medical insurance plans now existing.
 (b) To study methods whereby economies may be effected in these plans.
 (c) To present to their constituents, through a series of lectures, publications and word-of mouth discussions, the facts that emphasize the importance of avoiding overuse and misuse of hospital and medical care facilities.
8. That State Medical Society Insurance Audit and Control Committees be organized on a regional basis throughout the State to work with Michigan Medical Service and Michigan Hospital Service in the study and control of the misuse and abuse of medical and hospital services.
9. That a more definite basis be defined and a uniform method used for the determination of salary limits and family income in relation to Michigan Medical Service contracts. This is especially applicable in families in which there is more than one employed worker and in estimating the value of food grown for home consumption by a farmer.
10. That we go on record as unalterably opposed to any and all forms of closed panel practice. That we further go on record that the choice of a closed panel is not the freedom of choice of a physician.
11. That we, as individual physicians and as the Michigan State Medical Society, pledge ourselves to continue to fight and work for the continued freedom of the practice of medicine and of the free choice of physician by every patient.

Respectfully submitted,
Clarence I. Owen, M.D., *Chairman*
Joseph F. Beer, M.D.
John E. Hauser, M.D.
H. C. Hill, M.D.
Earl G. Krieg, M.D.
Max L. Lichter, M.D.
Kenneth H. Johnson, M.D., *Ex Officio*
Wilfrid Haughey, M.D., *Advisory*
(at request of Chairman)

* * *

This report was referred to the Reference Committee on Medical Service and Prepayment Insurance.

V. REPORT OF MSMS-SPONSORED OPINION STUDY

The Speaker: This is a very important moment in the history of the Michigan State Medical Society. We are about to present some information which may change your ideas and philosophies of medical insurance protection, and it certainly will have a far-reaching effect on many people in the State of Michigan.

Up to this point many of us have been dealing with opinions on medical insurance. Now we have the opportunity to deal with facts.

Last April 27 you authorized a study which, in broad general terms, would seek three types of information:

1. What medical services do people want covered by medical payment plans, and what do they feel is the order of priority for these services?
2. How much will people be willing to budget for

these services, and which of the services are they most willing to pay for?

3. What do doctors want from any medical insurance plan?

The medical profession felt that such a study would make a definite contribution to the public interest, so the Michigan State Medical Society joined forces with the Michigan Health Council to carry it out.

It looked like a big project, and, as it turned out, it was a terrific task. I cannot adequately describe nor emphasize too much the hard work that was done by the staff of the Michigan Society and the Health Council. Because of their diligent efforts, we are able to report the results of that study today.

First of all, however, I would like to point out that every step of the study was reviewed by the Survey Committee, which was actually the Executive Committee of The Council. In addition, the report of the results of the study has been approved by the full Council.

Three speakers are going to make this presentation today. I would like to point out that they will be *reporting;* they are not expressing personal opinions. What they have to say are the accurate reflections of the thinking of The Council and of the returns of the study.

The first speaker in this presentation is Dr. J. J. Lightbody, of Detroit. He will bring us up-to-date on what has happened since last April. At this time it gives me a great deal of pleasure to present the Vice Speaker of the House of Delegates of the Michigan State Medical Society, Dr. J. J. Lightbody.

J. J. Lightbody, *M.D.* (Wayne): It is a distinct pleasure and honor for me to take part in this important occasion. The past five months have been extremely busy ones for the committees that have been concerned with this comprehensive opinion survey study. To my knowledge, never before has a study of this scope been authorized and completed on such a fast time schedule. I also would like to thank those MD's who gave their valuable time to this strenuous activity, and extend a special vote of thanks to the executive staff and office staff of the Michigan State Medical Society and the Michigan Health Council for their outstanding work in bringing the results to you today, under the direction of Mr. Hugh Brenneman, Survey Director.

This presentation today will be in three parts and will accomplish three things: First, it will bring everyone up-to-date on why and how the study was conducted. Second, we will report the actual results of the survey. Third, we will summarize and conclude and place the report in your hands for proper disposition.

Much of this survey material is extremely complex; however; because all members of the House of Delegates want to take back information on this study to their respective county medical societies, we have made every effort to give you the facts arranged in the simplest possible form. At the same time our distinguished guests will want to interpret the survey to their respective organizations—or, in the case of the science writers assembled, they will want to interpret the information for their readers.

So, to help all of you, we have prepared a kit of materials which will be distributed immediately after this morning session adjourns. The science writers and others may obtain additional information in the press room if they so desire.

Now let us consider for a few minutes what has happened since the House of Delegates authorized the Opinion Study on Prepaid Medical Care Coverage in Michigan at the special session on April 27 of this year.

For a long time we have known that there had to be some changes made in the medical care plans and health insurance coverage now being offered in our State. Since most citizens in Michigan have some type of prepaid medical insurance, any changes made in policies and contracts would naturally affect these people directly.

Who, then, should decide what changes would be made? Should we listen to what the leaders of pressure groups had to say? Should we institute these changes between ourselves? Or, should we ask the people of Michigan who participate in these plans what these changes should be?

It was felt that since the medical profession and the people are partners in any plan or system of medical care, both the doctors and the people should have an opportunity to state their views about what medical-surgical services should be offered. So, we went directly to the people to find out what they wanted and what they were willing to pay for these services.

To find this out, an extensive State-wide study was carried out jointly by the Michigan State Medical Society and the Michigan Health Council. It was one of the biggest public opionion samplings of its type ever undertaken in Michigan or in the nation. It was a survey that was urgently needed. The House of Delegates felt the need because voluntary prepaid medical and surgical care plans have long been the target of leaders of various pressure and special interest groups. Many of such groups have pressed for revisions which are invariably offered as the panacea that will cure all real and imaginary ills of health insurance.

The *Detroit Times* commented on the need for such a survey in an editorial on July 14, 1957. I quote:

> "It's clear enough that strong public sentiment favors putting more medical care on a permanent monthly basis. But how far should this go? There is a difference between wishful thinking and hard-headed preference. Naturally, we all would like to have a plan that would include everything we ever might want—at a modest price. The problem here is to find out what people really want, in view of the inescapable fact that whatever we get has to be paid for."

So, in answering a definite need for the study, the Michigan State Medical Society and the Michigan Health Council joined forces to carry it out.

The study was conducted as scientifically as possible to gain an accurate cross-section of opinion. We called in top-notch sociologists and research experts as consultants. Plans were drafted immediately after the April 27 meeting, and were reviewed and adopted on May 15—and the survey began.

The Michigan Health Council co-operated in making the mail survey. As many of you know, this organization is a nonprofit, educational institution which has a membership of many different associations having a primary interest in health. A total of 55,169 persons in Michigan received this Michigan Health Council questionnaire, which was distributed on a county-by-county percentage population basis.

The questionnaire asked people about their preference in medical insurance plans, what benefits they would like to add or eliminate, and how much they would be willing to pay for any additional benefits. Information was obtained about the person's age, his income, the size of the community where he lives, his occupation, and his membership in organizations such as farm groups, labor unions or professional societies. In this way the study would show how the city people think, how the rural folks think, and how people with different incomes feel, and how the people in professional or occupational organizations react to prepaid medical care coverage plans.

You might think that the 55,000 mail questionnaires distributed by the Michigan Health Council would be sufficient to develop a trend in thinking; but we didn't stop there. Two Michigan newspapers—the *Detroit Sunday Times,* with a circulation of 500,000 and the *Lansing State Journal,* with a circulation of 68,000—published the questionnaires in full so that their readers could voice opinions as well.

The people of Michigan did more than just check the boxes and write in a few words. Many of them sent

lengthy letters with illuminating comments on what they think of the present plan of medical protection. Naturally, some of the opinions expressed were merely an opportunity to sound off on some of their pet peeves, but the great majority of the comments were well-thought-out messages of personal experiences.

For purposes of easier identification, we called this part of the study the Survey of Consumer Opinion on Medical Insurance Protection, or the mail survey. July 31 was selected as the cut-off date, after which no more mail questionnaires would be tabulated. The survey went out during the first week of July so that people had sufficient time to return them if they were interested. The response to this survey was excellent. Fully 15 per cent were returned by the cut-off date, and returns kept pouring in even after July 31. Tabulation of this survey was begun August 1.

A second questionnaire was mailed to Michigan M.D.'s by the Michigan State Medical Society. This special Doctor Opinion Survey was more technical in nature than the questionnaire sent out by the Michigan Health Council. It covered such things as the administration of major medical and surgical prepayment plans and health insurance policies offered in Michigan, subscriber contract arrangements, and methods of payment. Every doctor in this room who is a member of the MSMS was sent such a questionnaire. It was called the Survey of Doctor Opinion on Prepaid Medical Care Plans. Response to this questionnaire was excellent. There was a 38.5 per cent return. Normally, our survey analysts tell us, a return of 10 per cent is considered average.

Many of the doctors added lengthy comments about how they felt about Michigan Medical Service, Many of these comments have been recorded and will be published so that you can see this cross-section of opinion.

At the same time that these mail surveys were going on, personal interviews were being conducted throughout Michigan by the Market Opinion Research Company of Detroit. A group of 1,000 people representing a cross-section of the Michigan adult population was selected from typical counties, cities and rural areas, to include people in all occupational, age and income groups. Although these interviews followed the general lines of the mail survey, they were much more detailed.

The mail questionnaires, along with the personal interviews, answered the questions we wanted to know about what people wanted in medical care plans, what they were willing to budget for these services, and what the doctors expected from the plans. In addition, we also gathered a great deal of existing data from surveys made previously in other areas of the United States on the same basic questions. This information was compiled and is made a part of this report, along with the Michigan opinion survey facts.

After the July 31 deadline had passed, the tabulation began. First, all write-in answers were coded so that these answers could be incorporated with the other coded answers on the balance of the questionnaire and, in turn, tabulated by the Service Bureau Corporation, using IBM machines. This tabulation took approximately six weeks to complete.

That, in general, was the way the survey was conducted. Beginning with the authorization in April, we hired consultants to help us prepare the questions; then the various surveys were made, and finally they were tabulated. Up to this point it was conducted very much like any other survey.

However, our study was unique in many ways. As you can see, for one thing it was operated on almost a supersonic time schedule. It is not unusual for a comprehensive study of this type to take a year or more to complete.

From the decision to launch the survey to the report of the results, it was completed in only four months and one week.

The questionnaire was not sent to select groups; on the contrary, every effort was made to get as wide a distribution as possible.

In a special effort to get the questionnaire into the hands of people who work in Michigan industry, municipal government, merchandising and sales organizations, or trade organizations, personal letters were written to employers, with a copy of the questionnaire enclosed. The employers were asked to spread the word in their publications and request additional copies of the questionnaire for wide distribution among their workers. The response to this was gratifying. In fact, even now, late in September, we are still receiving requests for questionnaires.

The study was unusual in another way, in that an extensive publicity campaign was carried out all the time the project was in the works. This included radio, television and newspaper coverage.

Usually there is little publicity about a survey until the results are announced. In this case, however, we attracted public attention to the study so that the people would know about it and would understand the reason for the study, and would respond with a maximum return of the questionnaires.

So, the Michigan Health Council and the Michigan State Medical Society conducted a rapid, accurate, well-publicized study on medical care with an unusually large number of people. You delegates authorized the study, and it has been carried out.

As doctors, when dealing with disease we try to make an accurate diagnosis, then decide what to do after checking the facts. This same principle was applied in the diagnosis of what people want in medical care plans. The results of this opinion survey may not lead the way to a new miracle drug on the insurance market, or give everyone everything they want in a medical-surgical program, but at least, from this point on, we will be dealing with facts, not fiction or guess-work, because the people of the State of Michigan have spoken.

THE SPEAKER: It gives me a great deal of pleasure now to present to you Mr. Hugh Brenneman. I know how hard Hugh has worked, and I know how hard his staff has worked. I hope he, himself, will give credit to the members of his staff who have so diligently assisted in bringing this report to you. He also has a letter from Dr. Luck, who was the research analyst we employed to supervise this survey, which letter I hope he will read.

MR. HUGH W. BRENNEMAN: Perhaps one of the most difficult tasks ever assigned to The Council of the Michigan State Medical Society was to select the significant highlights from a study which had millions of factors. In the short space of time which is available to report the results of this study, we can only scratch the surface of the preponderance of information obtained. The report of the Opinion Study of Prepaid Medical Care Coverage in Michigan has some 240 pages. The members of The Council have asked me to direct your close attention to this document when you receive your copy later today.

To help you understand the material in this part of the presentation, several of the graphs and charts from the report have been reproduced and will be projected on the screen.

Before we get into the highlights of the Michigan State Medical Society study, let's take a look at voluntary health insurance plans nation-wide.

[*Slide*] VOLUNTARY HEALTH INSURANCE PLANS (AMA)

1. Nationally, among the voluntary, non-profit health insurance plans, the most widely-accepted plan is the combination service-cash indemnity.
2. Sixty-eight per cent of all voluntary health insurance plans are a combination service-cash indemnity. Michigan Medical Service falls in this category.
3. Thirty per cent of all plans nationally are cash indemnity.

4. Service, or full payment types, accounts for only 3 per cent of the national plans.
5. Blue Shield in Michigan has a larger percentage of the total population of the State enrolled than does any other plan in any other state.
6. There are no Blue Shield plans offered in Michigan other than that offered by Michigan Medical Service. This contrasts with many other states which have one or more Blue Shield plans with one or more corporations administering them.

[*Slide*] ORGANIZATIONAL TYPES OF VOLUNTARY HEALTH INSURANCE

1. This represents the organizational types of voluntary health insurance plans, organized as of December, 1956.
2. There were 58 combination service indemnity plans.
3. There were 28 service plans which were full payment plans.
4. There were 23 cash indemnity plans.

Now, with this background information in mind, let's present the highlights of the Michigan State Medical Society's public opinion study.

[*Slide*] PERCENTAGE OF COVERAGE IN MICHIGAN

1. This shows the percentage of persons in Michigan covered by a prepayment device.
2. Eight out of ten, or 81 per cent of all persons in Michigan are covered by some form of health insurance.
3. Sixty-five per cent of those insured are subscribers to Blue Shield.

[*Slide*] REASONS FOR NOT BEING COVERED

1. Some of the rest of the people said they had no coverage because they "can't afford it"—34 per cent of the answers.
2. "Haven't got around to taking it out" was the second reason, mentioned by 18 per cent.
3. "Don't think we need it" accounted for 15 per cent of the replies.

[*Slide*] WHAT INSURED BELIEVE THEY NOW PAY—ACTUALLY PAY

1. This shows what the insured believe they now pay for premiums—what they actually pay—and what they are willing to pay.
2. Blue Shield subscribers believe they now pay on the average of $5.96 per month for medical-surgical coverage.
3. Blue Shield subscribers actually pay an average monthly rate of $2.83.
4. The total interviewed indicated they were willing to pay an average monthly premium of $6.95 for a policy containing most desired benefits.
5. Blue Shield is used as an example because it was impossible to obtain a rate average from other sources.

[*Slide*] SUBSCRIBER AWARENESS OF CONTRACT BENEFITS

1. The subscriber awareness of contract benefits was appalling.
2. When people were asked what they thought their insurance contracts covered, 95.8 per cent knew they had surgical benefits; 93.9 per cent knew they were covered for obstetrics; 83.6 per cent correctly figured they had diagnostic x-ray; 65 per cent thought medical visits in the hospital were included; but only 44.4 per cent (less than half) knew for sure that they had the benefit of emergency first-aid in the doctor's office. And, more seriously, only 27.8 per cent knew that nineteen surgical procedures, which could be done in the doctor's office, were covered; yet the maximum contract covered all these things.
3. Then they were asked what they thought they had, and here is how they answered: Nearly half—45 per cent—assumed they had diagnostic benefits other than x-ray; 42 per cent assumed that the surgical assistant was paid by the insurance company; 36 per cent figured they were covered when their doctor had a medical consultation with another doctor about their case; 34 per cent banked on the insurance to cover pre- and post-natal care in the doctor's office; and, finally, 32 per cent figured that outpatient diagnostic x-rays were covered. But none of these benefits are covered by existing Blue Shield contracts.
4. Doctors felt that Blue Shield coverage was not sufficiently understood by either the general public or the subscribers. In addition, they felt that only 34 per cent of the medical profession understood the coverage.

[*Slide*] DESIRED BENEFITS—3 PLANS

1. When we asked about desired benefits in the single plan, self and spouse plan, and family plan, we found they ran pretty much alike.
2. Every body in all three plans wanted three in-hospital benefits in particular. Surgical led the list. Diagnostic x-rays was second, and medical visits third. When they were asked to choose what service members of all three plans wanted in a doctor's office, again they were unanimous in their leading choice. Each desired emergency first-aid. The second selection was minor surgical treatment.
3. Relatively fewer people were interested in having medical services in their homes. Less than half of them wanted home calls covered. About the same number wanted ambulance service too.

[*Slide*] TYPE OF COVERAGE DESIRED (MAJOR AND MINOR COSTS)

1. Next we considered the type of coverage desired as it related to major cost items and minor cost items.
2. About 68 per cent wanted both major and minor costs covered.
3. Thirty-two per cent were interested in having major cost items only in their coverage.

[*Slide*] DEDUCTIBLE PLANS

1. Is a deductible plan favored? If so, how much should be deductible?
2. Forty-seven per cent—nearly half of the people—said they favored a deductible plan.
3. About 44 per cent of the union members wanted it.
4. A majority of the over $5,000 income group wanted it—51 per cent.
5. Of the doctors, 82 per cent favored it.
6. On a related question about the liberalization of contracts, 72 per cent of the doctors felt that Blue Shield should develop a minimum coverage contract and then provide "policy riders" at additional cost for additional protective services.
7. Now, how much should be deductible? The first $25 was the choice of nearly half the people.
8. One-third wanted a $50 deductible policy.

[*Slide*] ATTITUDES TOWARD BLUE SHIELD

1. The attitude of people toward Blue Shield was another thing we tried to discover in the study.
2. Public attitude was good. A majority liked Blue Shield.
3. Blue Shield subscribers also had a favorable attitude by a big majority.
4. In the doctors' opinion, they thought the public generally was not entirely satisfied with Blue Shield.
5. Doctors also believed that Blue Shield subscribers were satisfied with the job Michigan Medical Service was doing; in fact, twice as many doctors felt that way.
6. Blue Shield subscribers' attitude toward the cost of the program was uniformly good. There was no significant difference between union members and non-union members and people with incomes over and under $5,000.

[*Slide*] DOCTORS' ATTITUDE

1. The doctors' attitude was measured to see if they thought Blue Shield is providing a satisfactory service.
2. "Yes" was the answer given by 30 per cent.
3. "Yes, but it could be improved" was the response of 50 per cent.
4. Then they were asked whether supervisory controls are necessary.
5. For Blue Shield the answer was "Yes" by a 79 per cent majority.
6. For Blue Cross the answer was "Yes" by an 85 per cent majority.
7. Doctors felt they should establish policing committees on the community level under county medical societies.

The Council has instructed me to read a letter to you which was written by Dr. David Luck, the consultant on this survey, who kept himself in a consultant capacity at all times, and who had questions having to do with methodology, what we should do, how it should be done, and so on, and analyzing everything that was done. His letter reads as follows:

Dear Mr. Brenneman:

"After studying the completed report on the prepaid medical care and coverage surveys, I am glad to accept your invitation to give you my own appraisal of the report.

"In general, I strongly approve of the care taken to report the complete facts and to express the conclusions fully. Although only a highly interested person would read most of this report, in a matter of controversy you properly include practically every breakdown of the data to permit anyone to weigh them and reach his own conclusions.

"The mailed questionnaire was a relatively simple one, in my experience with surveys, which dates back to 1908. The attendant publicity, which I know many people read since so many of my friends mentioned it, together with the easy-to-answer form, would bring in perhaps 20 per cent or higher return when the recipients are highly motivated, in my experience.

"We know from the personal interviewers' reception that people were cordial and had no inhibitions in discussing medical insurance. Therefore, I believe that while methods of medical insurance may be controversial, people are not worried about its costs or often irritated about it, since the Health Council got under 12 per cent return.

"It is interesting also that additional benefits at higher premiums were desired by so many, despite their very exaggerated recollection of the premium rates they pay. To me, this indicates that costs of medical insurance tend to be taken for granted, and are not a source of much public concern.

"Your statements of conclusions and highlights have been stated with care, and genuinely reflect the detailed data. One minor exception is found in statement No. 9 on page 19, 'Half of the people said they paid less than $50,' and so on. This is half of those who had to pay the additional amounts, who constitute 61 per cent of the 75 per cent who called on their insurance plan for benefits.

"Ignoring the 19 per cent who have no health insurance, then, of those who do have insurance I would have said that 22 per cent said they have paid less than $50. That is one misstatement that is made in the entire brochure that I could find in a very thorough and exhaustive review.

"Such corrections as these appear to be very minor, and I believe the report will be judged very sound by the Medical Society members and others who will be concerned with this vital social issue. As it might be useful, I would be glad to offer suggestions on any further edition of the report for a more popular or specialized audience.

"As a layman, and apart from my professional concern with the methodology of this study, I am gratified by the earnestness of the medical profession in meeting the social needs for financial protection in health matters, and I am impressed with the desire to learn and to report exactly what the public thinks, with no idea whatever of inducing bias into their responses."

G. W. SLAGLE, M.D.: Mr. Speaker, what I am going to present is the third part of this survey study presentation. I shall summarize some of the things that have been said and shown on the slides.

The people of Michigan have spoken, and their thoughts, opinions and ideas on medical and surgical care have been accurately recorded and reported. The facts are at hand. Now it is our duty as doctors to scrutinize them carefully and to draw some valid conclusions which will be useful to present any future medical contracts—both those of Blue Shield and all insurance companies that offer policies containing medical and surgical benefits.

In our audience today, there are many representatives from other state medical societies, Blue Shield plans, insurance companies and advisory health agencies. To these people I extend a sincere and warm welcome. In addition, I wish to assure them that all the information we have gathered in this report is available to them right now.

I would like to assure them that the information we have on the Opinion Study of Prepaid Medical Care Coverage in Michigan is valid. You have heard something of how the study was conducted. Throughout the entire period every effort was made to avoid a bias in the opinions. The study was done under accepted standards of survey methodology. At no time was there ever a suggestion made to fit the material and information into a preconceived notion of what the people want in the way of medical services—and what they are willing to budget for those services.

There also are representatives of communication media in our audience today for this presentation. I extend to them the same warm welcome, and assure them that every piece of information in the study is at their disposal. In addition, our Press Room in Parlor A is manned by competent staff personnel who have been intimately concerned with the study. They will be available to answer your questions and help you find the facts you might need to bring this important story to the people of Michigan and the nation.

It is a story of facts which may have tremendous effect upon the lives and welfare of people everywhere. It is a story that we feel they will be interested in because of the unusually great interest the people had while the surveys were being made. This interest was reflected in the high rate of returns.

The facts of the Opinion Study of Prepaid Medical Care Coverage in Michigan have been presented to you by the survey director, Mr. Hugh W. Brenneman. Now let's take a few minutes to see what these facts mean to the public, the insurance companies, the voluntary prepayment programs and the medical profession. Let us take these facts and draw our basic conclusions.

These conclusions, or interpretations, fall into five broad areas. They are:

1. Public awareness of benefits and costs.
2. What people want or think they have as medical coverage.
3. What these same people are willing to budget for this coverage.
4. Deductible type policies.
5. Opinions and desires of the medical profession.

We will take them up one at a time.

First, Public awareness of benefits and costs. We can draw this conclusion from the information contained in the study:

Insurance companies and voluntary prepayment plans which offer medical service coverage need to establish better lines of communication between the company and subscriber. They must explain what benefits are available in policies or contracts and what these benefits cost, because the public generally does not know.

The study disclosed that the public does not fully understand medical-surgical benefit provisions of policies or contracts. The extent of this lack of knowledge as pointed out in this study seems appalling. To me, at least, it is amazing that Blue Shield enjoys such overwhelming popularity with the public in light of these misunderstandings.

While 81 per cent of the people of Michigan have some sort of coverage—and while 69 per cent of these people have used their contracts at some time or other, as a rule they do not know about the benefits in their policies unless they have used that specific benefit. What is more, a patient who believes his contract covers a certain thing and who finds that it does not cannot be expected to continue as an ardent supporter of Blue Shield or any other company.

Added to what is already confusion, we find that subscribers and policyholders have an exaggerated idea of how much they pay for their medical-surgical coverage. The average estimate of monthly premiums for all policies surveyed is $4.12 per month more than the average premium for Blue Shield contracts.

Another stumbling block to our communication with persons insured is the fact that medical science today has produced new specialties. Some of the services from these specialties are included in benefit provisions; yet the specialty itself and what it means to the patient is not fully understood by the public.

We can conclude from our study that people want to add those benefits which they can see or hear—such as ambulance service—and which has a function they readily understand.

This over-all question on the lack of public awareness of benefits and costs is a serious one. The available facts warrant more study to determine what steps can be taken to illuminate and communicate this vital message.

Now, what about the second conclusion pertaining to what people want as medical coverage? We might state it this way:

People are generally satisfied with the coverage they have. However, they want more coverage but are not unanimous in the choice of benefits to be added.

From the facts disclosed today, we can see something of what is in the public mind about the direction in which they are looking for expanded benefits.

One thing is sure: They want what they have, along with some additional items too. There is little difference between the percentage of desire for any single benefit in the family, self and spouse, and single contracts—with the exception of maternity benefits of course.

On the other hand, public opinion is pretty well divided on whether or not to include items which are not covered at present. There is no overwhelming clamor for any particular service, although the highest ranking preference was for diagnostic services (other than x-ray) in the hospital.

Simply because there is no unanimity of opinion on this matter of added benefits does not mean that the policyholders and subscribers are entirely satisfied that their coverage should remain the same as it is today. To the contrary, the diversity of opinion means that there is a relative percentage—small though it may be—of the insured who desire almost every conceivable benefit. A policy containing one or more of these features will find acceptance with thousands of people.

We can sum it up like this: The question of what people want is the crux of this entire study. The answers are in the report which will be distributed after the meeting, but you as delegates must give careful thought to the total findings. This study gives you an accurate and scientific background to aid you in your deliberations.

With an idea of what the people want in mind, let's move along to the next conclusion—what are they willing to budget for medical coverage? Our conclusion might follow along these lines:

People will pay a reasonable increase in premium rates for the added benefits they prefer the most.

In this study the people expressed a willingness to pay an increased premium for a policy which was ideally suited to their needs. Then the study went even further and found that, on the average, the insured were willing to pay $6.95 a month for hypothetical policies they designed themselves. This one fact was conclusive evidence that people will pay for something they want, even though the $6.95 represents an increased rate.

Remember this: There is a great deal of difference in being willing to pay for something, and actually handing over the cash. It does serve to indicate, however, that they are willing at least to pay an increased rate for the coverage they desire the most.

When speaking of monthly premiums, this leads us to our fourth conclusion:

A large number of people favor a deductible type policy in order to reduce monthly premium costs.

Long experience with automobile deductible insurance makes this a familiar term, and there seems to be no confusion in the public mind about the operation of a deductible feature.

There is no overwhelming cry from the public for the introduction of this type of policy—yet 47 per cent of the people (nearly half) favor the idea. The most preferred amount was a $25 deductible.

So, it would seem that if a deductible type contract were introduced there would be definite public acceptance.

Up to this point we have been reporting what the people of our State feel about medical and surgical care programs. As has been pointed out before, the people and the doctors are partners in these programs. Now let's see what the medical profession thinks.

The conclusions which follow are based on the answers that members of the Michigan State Medical Society gave to a doctor opinion survey. From this survey we are able to draw this basic conclusion:

Doctors indicate that Blue Shield might well change its income limits on contracts with an accompanying revision in fee schedules, and that utilization committees be formed on the county medical society level to oversee Blue Shield utilization.

Relatively few doctors believed that Blue Shield's medical service principal should be limited to people with incomes under $5,000. In fact, they recommended that the three income limits be adopted to include a $7,500. Along with the new service limit, however, the doctors felt that a revision of the fee schedule should be forthcoming.

A majority of the doctors feel that Blue Shield's schedule should be raised on a selective basis. Many believed that both premiums and fee schedules should be adjusted as living costs vary.

More than three out of four of the doctors feel that separate contracts should be offered by Blue Shield in addition to current full pay policies, to permit the subscriber to purchase a deductible policy or a co-insurance policy.

Significantly, the doctors felt that Blue Shield and the public will benefit if utilization committees are formed to oversee the utilization of medical care under Blue Shield. The most favored method for this was through the county medical society.

I have drawn together the most predominant categories in the doctor opinion survey. There are many other items that may be of interest to each one of you and your particular specialties, but rather than take your time I would refer you again to the report itself.

This presentation has covered five broad areas in which we have made the conclusions of the study. It has been an analysis of the facts as brought out in our opinion study on prepaid medical care coverage in Michigan.

We do not make an attempt to prove a point; we merely reported the raw figures as they appeared in the study. Let me assure you that no attempt was made to juggle the figures to follow a preconceived idea on medical insurance protection.

As we begin our deliberations about this gigantic, comprehensive study, let us pause for a moment and consider some broad principles which we follow in the

medical profession, some of which are reaffirmed in this study. None is denied in the study.

Our basic job is to give the best medical service available to the people. We must make sure that our patients continue to enjoy the doctor-patient relationship, which can operate to its fullest content only if there is freedom of choice of physician. No third party can interpose in this relationship. We have a responsibility to see that this never happens.

We also have other responsibilities to the people in the development of medical care programs and health insurance coverage. These programs should never straight jacket the people into a rigid pattern of rules and regulations. They must have the broadest opportunity for freedom of choice in all factors.

In addition, it is not our business to tell the public how they should pay for medical services, but it is our duty to help them obtain the broadest possible coverage which fits their needs and fits their willingness to set aside sufficient amounts for these services.

There are going to be changes in medical insurance protection—we know that; yet in making these changes, let us remember to offer adequate option for the varied needs of the people. In the past we have only been able to guess at what these needs and desires are. Now, with the survey completed, we know.

The study is at hand. I urge you to weigh each of the factors closely, in the light of the broad principles which I have just outlined. We have the opportunity to meet our responsibility to the people in developing the best medical insurance program possible. Let's make the best of it. [*Applause*]

* * *

The Speaker: This three phase report was referred to the Reference Committee on Medical Service and Prepayment Insurance.

VI. REPORTS OF THE COUNCIL

By D. Bruce Wiley, M.D., Chairman

May I present a portion of the supplemental report of The Council at this time which pertains to the study that has just been presented.

Committee on Michigan Medical Service

This Committee has held numerous meetings during the past year. It has carefully reviewed all the provisions in the present Michigan Medical Service contracts and those of many other prepayment plans. It has also considered the various suggestions made by members of the Society.

The Committee feels that certain changes in the contracts should be made at this time to better serve the public, to meet more adequately the desires of the subscribers and physicians, and at the same time preserve the basic idea inherent in the Blue Shield Service philosophy.

It must be borne in mind that any proposal must be realistic and actuarially and administratively sound. The attached proposal is presented to The Council for its consideration and subsequent submission to the House of Delegates:

MSMS PREPAYMENT PRINCIPLES

A. General Consideration.—The Michigan State Medical Society has made an intensive study of the development and the operation of the many means currently employed both in Michigan and elsewhere to insure against or to prepay the costs of medical care. The conclusions resulting from that study are set forth below and are based upon the following fundamental considerations:

1. The people of Michigan are entitled to and should have health care which meets the highest standards attainable.

2. Means should be generally available in Michigan which will permit the financing of the costs of necessary medical services and supplies to the greatest extent possible and practical through prepayment.

3. To whatever extent the cost of a particular medical service is not covered by prepayment, such uncovered amount shall be predictable, be known to the patient in advance, and be within his ability to budget for out of income.

The foregoing can be accomplished only if those responsible for rendering the necessary medical services, namely, the physicians of Michigan, assume the further responsibility of establishing within the profession a structure around which sound insurance or prepayment plans can be built, and also a system by which the profession can assure itself, the prepayment plan subscribers, and the underwriters that the structure is functioning in accordance with its commitments.

B. Commitments by the Michigan State Medical Society.—In light of the foregoing, the Michigan State Medical Society undertakes the following commitments:

1. Any contract offered by an insurance carrier or prepayment plan organization which embodies the principles set forth in Section C herein shall receive the endorsement of the Society. This endorsement shall remain in effect as long as the carrier continues to make the contract available.

2. It being the objective of the medical profession to make certain that voluntary health protection be available to all self-sustaining people at reasonable cost, the endorsement of the Michigan State Medical Society will be given only if rates charged by the insurance or prepayment carrier are fair and equitable.

3. The Society will use its best efforts to secure the participation of its members in all contracts endorsed by the Society.

4. A subscriber rendered care by a participating physician will receive "service benefits" as provided in his contract. The basis is set forth in Section D below.

5. The Council of the Michigan State Medical Society will appoint a Medical Care Insurance Committee having the following functions:

(a) To examine all contracts submitted for endorsement. A report will be sent to The Council which will have the authority to issue a certificate of endorsement on behalf of the Society.

(b) To co-operate with the Permanent Advisory Committee on Fees of the House of Delegates concerning the Relative Value Scale and applicable unit values.

(c) To develop review procedures for any matters concerning the subscriber, the physician, the insurance carrier, and others.

(d) To develop Review Committees in each of the Councilor Districts of the Society, nominated locally, which shall be appointed by The Council of the Michigan State Medical Society. These shall function under the direction of the Medical Care Insurance Committee, which will also serve as a unit to which appeal can be made from decisions of the Review Committee(s).

(e) To make such interpretations of the language herein as may be required in connection with the endorsement of contracts.

6. Amendments to or interpretations of the principles set forth herein may be made by The Council of the Michigan State Medical Society during the interim between meetings of the House of Delegates of the Michigan State Medical Society.

7. The Michigan State Medical Society, sponsor of Michigan Medical Service, will urge Michigan Medical Service to make available to any qualified group or individual protection in accordance with the principles herein set forth at fair and equitable rates and pledges its support in such an endeavor.

C. Principles to be Embodied in Insurance Contracts.—

1. There must be complete freedom of choice of

physician by the patient. Nothing in any contract will imply any restriction of this principle.

2. All benefits will be on a service basis consistent with the principles set forth in Section D.

3. The following services must be included in any basic program:

(a) Surgical procedures wherever performed.

(b) Medical services when the patient is confined to a hospital.

(c) Consultation service for surgical cases, obstetrical cases and in-hospital medical cases; surgical assistants where required.

(d) Obstetrical services for the actual procedure in normal delivery, Cesarean section or abortion and complications of pregnancy, but not to include routine prenatal and postnatal care. Optional supplemental insurance by the carrier to cover all obstetrical costs may be offered as provided in No. 4 below.

(e) Anesthesia by a physician not an employe of a hospital.

(f) Diagnostic laboratory procedures shall be provided in the outpatient department of a hospital, a private laboratory, in the physician's office.

(g) Diagnostic and therapeutic radiologic procedures, and therapy shall be provided in the hospital, the outpatient department, or in the physician's office.

4. At the option of the carrier, additional coverage may be provided for other medical services and supplies, such as:

A Home and office calls.

B Benefits for prescriptions filled by a registered pharmacist.

C The furnishing of prosthetic devices.

D Physiotherapy in the outpatient department or the physician's office.

E Other services which may be required in the treatment of the patient.

5. (a) For any necessary service other than surgical and obstetrical and anesthesia, the subscriber shall have, at the time of utilization, a degree of financial participation in and responsibility for medical fees in addition to his premium. This shall be determined by the carrier, but the responsibility of the patient shall be not less than 10 per cent or $5, whichever is more, but not in excess of the scheduled fee allowance. In accordance with the terms of the contract, this amount shall become the obligation of the patient to the physician at the time of service and will be subtracted by the carrier from the payment for service it shall make to the physician. These provisions shall not be applicable to subscribers covered by Plan E. For any calendar year, however, patient participation shall not exceed the following:

Contract for Which Eligible	*Limit of Patient Participation Per Year*
A	$ 25
B	50
C	75
D	100
E	Not applicable

(b) While the provisions of "A" above are strongly urged by the Michigan State Medical Society, any carrier may have the option to waive the provision of "A" by a rider to provide for coverage without subscriber contribution.

6. There shall be five contracts to be known as Plans A, B, C, D and E. Each of these contracts shall apply to a specific income level and, except for *Plan E*, will provide service benefits. The income level shall be determined by a projection of the current rate of earnings of the basic wage-earner in the family and not by family income.

Plan A will provide full service benefits to all subscribers whose basic income is less than $2,500. *Plan B* will provide full service benefits for those subscribers whose basic income is $2,500 but less than $5,000. *Plan C* will provide service benefits for those subscribers whose basic income is $5,000 but less than $7,500. *Plan D* will provide service benefits for those subscribers whose basic income is $7,500 but less than $10,000. *Plan E*—The fee will be the result of agreement between the patient and his physician. The Plan will pay the applicable "Dollar Allowance" as indemnity to the doctor. This does not preclude the carrier from offering a contract which will insure fees incurred by subscribers in this class.

7. The insurance carrier shall be responsible for classification of subscribers and appropriate designation of the Plan in which they are enrolled. Income designation shall reflect the subscriber's current rate of pay projected on an annual basis. This designation shall be reviewed annually and changed as indicated by the review.

D. Basis of Service Benefits.—1. The Michigan State Medical Society will develop a "Relative Value Scale" which will assign to the individual surgical, obstetrical and other medical services a value in units proportional to the relative value of that service. The Society will determine the applicable value of one unit for each class of benefit. By multiplying the number of units assigned to a procedure by the value of one unit, the "Dollar Allowance" for that procedure is obtained.

2. (A) The Michigan State Medical Society will establish unit values for medical, surgical and obstetrical procedures and anesthesia for each of the Plans.

(B) For diagnostic laboratory procedures and for all radiologic procedures, the unit value will be the same for all Plans.

(C) For any optional benefits offered by a carrier, the Society will establish appropriate unit values.

3. Until the Society establishes a "Relative Value Scale" for Michigan, the scale developed by the California Medical Association shall be used.

4. No participating physician may charge more for a particular service rendered a subscriber than the "Dollar Allowance" payable for that service under the subscriber's contract. Subscribers covered by Plan E, however, shall be responsible for any part of fees to which they agree in excess of the applicable "Dollar Allowance."

* * *

This portion of the report was referred to the Reference Committee on Medical Service and Prepayment Insurance.

The annual report of The Council is printed in the Handbook for Delegates, beginning on page 51.

The Council wishes to present the following supplemental report as of September 22, 1957:

1. *Membership.*—On September 1, 1957, the membership of the Michigan State Medical Society totaled 6,400. This compares very favorably with the total of 6,157 at the same time last year.

2. *Finances.*—

FINANCIAL REPORT FOR PERIOD ENDING AUGUST 31, 1957

ACCOUNT	On Hand 1/1/57	Income to 9/1/57	Expenses to 9/1/57	Balance on Hand 9/1/57
General Fund	$ 89,870.56	$162,765.70	$109,771.05	$142,865.21
Annual Session		31,774.66	8,601.69	23,172.97
Michigan Clinical Institute		13,650.00	13,893.52	— 243.52
The Journal		76,518.52	64,070.20	12,448.32
Public Education	73,891.87	34,049.47	37,861.71	70,097.63
Public Service	3,675.16	19,020.75	17,169.09	5,526.82
Professional Relations	4,897.50	28,531.12	25,328.49	8,100.13
Public Education Reserve	57,245.00	16,303.50		73,548.50
Rheumatic Fever Control	7,675.56	11,774.51	7,491.11	11,958.96
Surplus from Dues	53,614.34			53,614.34
Building Fund	14,124.94	11,130.83	5,073.21	20,182.56
MSMS Headquarters Fund		27,172.50		27,172.50
Totals	$304,994.93	$432,691.56	$289,260.07	$448,426.42

3. *Michigan Medical Service.*—An up-to-date report on this corporation, including the finances. will be presented to you at the meeting of Michigan Medical Service membership tomorrow, September 24, at 2 p.m. in this Ballroom of the Pantlind Hotel. All MSMS delegates are members of Michigan Medical Service Corporation and are expected to attend this important annual meeting (which will be preceded by a 12:30 p.m. reception and a 1 p.m. luncheon, with the compliments of Michigan Medical Service, in the Kent State Room of this hotel. (See page 13 of Handbook for report on Michigan Medical Service.)

4. *Michigan's Foremost Family Physician of 1957.*—Selection of one of our Michigan general practitioners as nominee for the AMA Gold Medal Award is the privilege of the MSMS House of Delegates. According to established procedure, the field of nominees has been narrowed by The Council to three, from which the House of Delegates elects one. The three nominees are: Daniel J. O'Brien, M.D., Lapeer; John W. Rigterink, M.D., Grand Rapids; Paul Van Riper, M.D., Champion.

5. *MSMS Health and Accident Insurance Program.*—The report to September 1, 1957, supplied by the carrier (Provident Life and Accident Insurance Company of Chattanooga, Tennessee) is as follows:

(1) That over the past two years, on a basis of annual renewals, the average claims from doctors where payment has been made equalled 14.12 per cent, very close to one out of seven.

(2) During this same period 39.7 per cent claim payments were paid per month, or an average of 1.85 payments per working day.

(3) That during this period four accidental death claims have been paid.

(4) As of August 15, 1957, there were forty-one claims in process. Out of these, thirty-two have received payments from the Company, and on these thirty-two, 179 different payments have been made which indicate long-term disability since the Company pays monthly income amounts to these policyholders. The average payment has been $346.28 and the average total amount paid to date to each of these thirty-two claims is $1,937, which again indicates a long-term disability of those who are on the claim rolls at the present time.

6. *Invitations to all New Licensees.*—As instituted in 1956, all doctors of medicine who were licensed to practice in Michigan since the last MSMS Annual Session recently were sent special invitations to attend our 1957 convention. In this group of almost 1,000 physicians, nonmembers as well as members were included with the thought that the Annual Session would indicate to nonmembers some of the many values of association with MSMS, recognized as one of the top three progressive state medical societies in the United States.

7. *Beaumont Memorial.*—The Council is pleased to announce that an agreement between the Michigan State Medical Society and the Mackinac Island State Park Commission, placing ownership of the Beaumont Memorial furnishings (personal property) in the name of the Michigan State Medical Society, was executed on July 13, 1957.

This meeting of minds bodes well for the future of the Memorial. It begins a joint endeavor of the three interested groups—the Michigan State Medical Society, the Mackinac Island State Park Commission, and the Michigan Historical Commission—to make the Beaumont shrine the most interesting and authentic historical museum on Mackinac Island.

Beaumont Memorial Foundation.—Following the approval of last year's House of Delegates, The Council requested the Beaumont Memorial Committee and Legal Counsel Lester P. Dodd to proceed with the incorporation of the Beaumont Memorial Foundation, a nonprofit corporation in the State of Michigan. This has been substantially accomplished, and soon every MSMS member will be formally invited to participate in the Foundation, created to further the purposes and continuing needs of the Beaumont Memorial. Thus, every Michigan physician will know that he is not only eligible to join the Beaumont Memorial Foundation at an annual membership fee, but that it is his privilege to continue the upkeep of this historical gem which belongs to all members of the medical profession and should be the financial responsibility of all.

Our congratulations are extended to Alfred H. Whittaker, M.D., of Detroit, who recently was appointed as a member of the Mackinac Island State Park Commission by Governor Williams—the first M.D. to be placed on this important Commission.

8. *Group Life Insurance for MSMS members.*—During the past year individual members expressed interest in the MSMS sponsoring a program of group life insurance, to round out our group health and accident program. In July, 1957, The Council authorized a survey of the entire membership to ascertain if this service was generally desired. The results of the survey (as of September 16, 1957) are as follows: 2,861 (45 per cent) of the members voted in the survey; 1,828 (64 per cent) of those voting expressed a favorable opinion; 1,033 (36 per cent) voted "No."

The actuary who conducted the survey for MSMS made a comprehensive study of various plans and believes the following program—considering legal requirements and actuarial statistics of MSMS membership—would provide the maximum benefits for the largest number of members:

Classification	*Benefits*
All eligible members through age 49	$10,000 (maixum allowed by Michigan law)
Ages 50 through 64	Reduction from $10,000 of $500 per year up to age 65
Ages 65 through 70	$2,000

The actuary expects that the cost per member will range between $65 and $100 per year depending upon age of insured members. An average premium may be used to apply for all members, but the actuary feels it may be desirable to apply a reduced premium at the younger ages (under forty, perhaps) to attract this group of members. The success of the plan will ultimately rest with our ability to maintain a high degree of interest among the younger members. The actuary further advises that any dividends earned because of favorable experience would be returned to MSMS.

A recommendation on this subject follows.

9. *Opinion Study of Prepaid Medical Care Coverage in Michigan.*—This monumental work, authorized by the House of Delegates in special session on April 27, 1957, is the most significant and largest study of its type ever conducted by a state medical society. A detailed report of the findings has been presented to you today by the Survey Committee (the members being the members of the Executive Committee of The Council) through their spokesmen, Drs. J. J. Lightbody, George W. Slagle and Mr. H. W. Brenneman.

National attention is focused on the results of the study by the medical profession, the public and the insurance companies. Proof of this is in the large number of distinguished guests already on hand for the presentation of the results. Many state and national organizations are represented. They include important personages from insurance companies, health insurance advisory groups, other state medical societies and Blue Shield plans. In addition, editors and writers from the great journals of national and state professional societies are planning reports on the study, as are science writers with established national audiences of readers.

The medical profession of America is waiting for the important decisions that this House of Delegates will make, based on the conclusions of this Opinion Study.

10. *Additional Annual Reports of Committees of The Council.*—Since July the following annual reports of

Council committees have been submitted and are presented herewith for your consideration.

* * *

By common consent the following reports were read by title:

A. *Liaison Committee with Michigan Medical Service.*—There were no matters referred to this Committee requiring its consideration during the past year.

B. *Joint Committee with State Bar of Michigan.*—Your Committee met on several occasions and after detailed discussion as to what should be included in an interprofessional code, and after reviewing sample codes which have been developed in other areas in the United States, it was decided to change the name to an "Interprofessional Statement of Principles," and that the results of the Committee's deliberations be reduced to suitable form by a subcommittee composed of Mr. LeRoy Vandervere and Dr. F. B. McMillan.

This final draft of the "Statement" has been approved by the Committee and by The Council after being edited by the Public Relations Counsel and the Legal Counsel.

The Committee recommended that this "Statement of Principles" be printed and distributed to all members after its final acceptance by The Council of the Michigan State Medical Society and the Commission of the State Bar of Michigan.

C. *Liaison Committee with Michigan State Board of Registration in Medicine.*—Your Committee held one meeting on February 21, 1957, at which E. C. Swanson, M.D., Vassar, Secretary of the Michigan State Board of Registration in Medicine, was present; also, representatives of the Deans of the two medical schools in Michigan. Subjects under discussion were: (a) Screening of abilities of foreign graduates seeking temporary licenses to practice; (b) recommended changes in the administrative rules and regulations of the Board (Section I-B—"Preliminary Education Standards"); (c) National Board examinations; (d) Medical student's entrance procedure.

D. *Special Advisory Committee on WCMS Headquarters Film.*—An attempt is being made to record on film the story of the transition of Wayne County Medical Society headquarters from the David Whitney House to the new Society Building on the campus of Wayne State University Medical School.

The 16 mm sound color motion picture will show the construction process of the new building, along with the background facts of how the project came into being.

The film has been outlined in content and the camera work begun. It will be completed in time for its initial showing at the dedication ceremonies of this new headquarters.

E. *Committee on Uniform Fee Schedule for Governmental Agencies.*—The activities of this Committee have been confined to some correspondence between the members and the Chairman and between the Chairman and the State Secretary and between the Chairman and the Supervisor of Medical Services of the Office of Vocational Rehabilitation.

The intended project of the Committee—a revised fee schedule for governmental agencies—has been held in abeyance because this work is to be implemented by a new standing advisory committee of the State Society.

G. *Healing Arts Study Committee.*—This Committee was charged with a grave responsibility. Stripped of formal verbiage, the task confronting it was to point the way toward a fair solution of the "osteopathic problem."

The Committee accepted its assignment knowing full well that NO solution which it might recommend would be likely to meet with hearty accord and unanimous approval. On the other hand, the Committee recognized the necessity for some constructive action. It did not believe that this type of problem could be solved, to the advantage of the people of Michigan or the medical profession, by pretending it did not exist.

The Committee was equally in accord that it should recommend no course of action which would compromise the high medical standards which presently protect the patients of the medical profession.

With these two boundary lines, the Committee set to work. Conversations were entered into seeking the advice of MSMS members. Informal meetings were held with key representatives of the osteopaths. Public opinion was probed. The Committee deliberated and came to the following conclusions, and, with them, certain recommendations.

The Committee concluded that:

1. The doctors of osteopathy in Michigan are firmly entrenched among the people of Michigan as practitioners of a healing art.

2. That doctors of osteopathy are known and recognized, by the medical profession of Michigan, to be rendering many of the same types of medical service that are doctors of medicine.

3. That several osteopathic hospitals (and so-called "open" hospitals) in this State are deriving their support from public funds and public contributions.

4. That in some localities doctors of osteopathy and doctors of medicine are working in the same hospital without compromising the standards of medical practice in those areas nor jeopardizing the care of the patients.

5. That doctors of osteopathy are not presently as well trained clinically as are doctors of medicine.

6. That remaining in Michigan are many older doctors of osteopathy who continue to follow the cultist practices advocated by the founder of osteopathy.

In view of these conclusions, the Committee sought the opinion of The Council in July, 1957. It has subsequently met and offers the recommendations which follow. The Committee makes no claim that these recommendations, if approved by The Council and the MSMS House of Delegates, will solve the problem. It does believe that these policies, if adopted, can result ultimately in better care for the people and better relationships between these professions without loss to medicine.

Recommendations.—1. That the Michigan State Medical Society approve the medical schools of the University of Michigan and Wayne State University giving courses to osteopaths.

2. That the Michigan State Medical Society delegates to the American Medical Association House of Delegates be instructed to submit a resolution to the AMA House of Delegates at that body's next session, requesting the referral of the problem of MD-DO relationship to the individual constituent state medical societies for action by their individual houses of delegates, and that actions subsequently taken on this question by these houses be considered ethical in relation to the AMA Principles of Ethics.

3. That the Michigan State Medical Society approve consultation between MD's and DO's if and when approved by the American Medical Association.

4. That the Michigan State Medical Society agree to having its Legislative Committee meet annually with the like Committee of the Michigan Association of Osteopathic Physicians to attempt to iron out any legislative problems.

The Committee noted with interest the MSMS policy and relationship to other healing arts professions, that is, chiropodists, optometrists, physical therapists, and so on. It did not choose to comment on these on the basis that the situation seems generally well in hand.

Respectfully submitted

ARCH WALLS, M.D., *Chairman*
B. M. HARRIS, M.D.
F. E. LUDWIG, M.D.
G. W. SLAGLE, M.D.
H. B. ZEMMER, M.D.

H. *Committee on Mediation, Ethics and Grievance.*—Your Committee followed the instructions of the 1956 House of Delegates and sent to all component county medical societies copies of the proposed amendments to Chapter 6 and the suggested additions to Chapter 7 of the Michigan State Medical Society Bylaws.

Two county societies, other than those which approved the draft *in toto,* offered some changes which were duly considered by our Committee.

The revised proposed amendments to the MSMS Bylaws, therefore, are presented to the 1957 House of Delegates for its consideration, which we hope will be favorable:

SUGGESTED ADDITIONS TO BYLAWS RELATIVE TO GRIEVANCE COMPLAINTS FROM THE PUBLIC

Chapter 7 Re Grievances of Nonmembers—Mediation Committees

Note: Re-number subsequent Chapters in Bylaws

Sec. 1—*Policy.*—One of the responsibilities of this Society and of its component county societies is to foster friendly and harmonious relations between the medical profession and the public. To implement such policy, there shall be established within each component county society a standing committee designated as the Mediation Committee. The Councilors of the respective districts of the MSMS within which such a component county society is situated shall be eligible to membership on such committees.

Sec. 2—*Purposes.* The purposes of such Committee shall be:

(a) To afford the public an informal means of making known to the profession any alleged grievance arising from a physician-patient relationship.

(b) To resolve misunderstandings between physician and patient or between the component county society and the public.

(c) To reconcile differences between physician and patient by means of persuasion and explanation.

(d) To assist the Ethics Committee of its component county society in maintaining among members high levels of professional deportment.

Sec. 3—*Duties and Powers.*—It shall be the duty and authority of such Committee to:

(a) Receive, hear, examine, investigate and consider complaints from members of the public arising from a physician-patient relationship.

(b) Adopt rules governing the performance of its function; provided such rules are not inconsistent with the applicable provisions of these Bylaws.

(c) Invite response and co-operation from any member of its component county society involved in such complaint. The inexcusable failure of a member to respond to and co-operate with the Committee shall be deemed misconduct, for which discipline may be exacted in the manner provided in chapter 6 of these Bylaws.

(d) Initiate disciplinary measures in the manner provided in Chapter 6 of these Bylaws whenever the Committee has reasonable ground to believe that a member has been guilty of any conduct for which discipline is provided in these Bylaws.

(e) Carry out to the best of its ability the declared purposes of such Committee within the means hereby specified and limited.

Sec. 4—*Limitation of Powers.*—As between the complainant and a member of the component county society, the powers of the Committee shall be limited to efforts promoting understanding or agreement between the parties by means of conciliation. The Committee shall not act as a trial body for the purpose of rendering decisions or awards as a substitute for the judgment of a court or any other similar purpose. The Committee shall have no power to effect discipline or encroach on the function of the Ethics Committee of its component county society.

Amend Chapter 10 of the present Bylaws as follows:

At the end of Section 1, add:

(f) Committee on Mediation

Following Sec. 6, add the following new Section:

Sec. 7. The Committee on Mediation shall be comprised of not more than seven members appointed by the President with the advice of The Council, for terms so fixed that no more than three of them expire during the same year. It shall be the function of the Committee: (a) to receive, hear, examine, investigate and consider written complaints affecting substantial segments of the public arising from the relationship of the medical profession with such segments of the public of this State; (b) to reconcile differences between the profession and the affected segments of the public by means of persuasion and explanation; and (c) to propose and suggest rules of appropriate procedures for use by mediation committees of component county societies.

MISCELLANEOUS CHANGES IN BYLAWS SUGGESTED

Delete from Chapter 2, Sections 6 and 7.

Comment.—The matters provided in these two Sections are in the proposed new Chapter 6 and more appropriately are to be placed there.

Delete from Chapter 2, Section 1 and substitute therefor the following:

Sec. 1. Admission to membership of any component county society is not a matter of right but one of privilege, to be accorded or withheld in the sole discretion of such society. Every component county society may determine the manner of electing its members and shall be the sole judge of the qualifications of applicants for membership thereof.

Comment.—The present Section sounds as though the county societies are directed by the MSMS to admit every "reputable practitioner of medicine." Obviously this contradicts or limits the earlier language, which gives the county committee the right to set their own qualifications for membership, and to refuse to admit practitioners who for any reason are not acceptable to a society. Particularly from a legal standpoint, a question may arise should an applicant bring suit against a component county society for refusing to admit him. Such a case is in prospect even now. The applicant may cite to the court the present Section 1, which makes every "reputable practitioner of medicine" eligible to active membership. The proposed new Section may help the situation without doing violence to the principle of local autonomy.

Delete from Chapter 10, Sec. 5, the last sentence.

Comment.—The investigation of ethical misconduct has long been a function of local ethics committee. The State Committee on Ethics has been made essentially an appeal board.

Proposed
Chapter 6—Conduct and Discipline of Members

Sec. 1—*Standards of Conduct.*—It is the duty of every member of this Society and each of its component county societies to conduct himself both professionally and personally in conformity with the high standards imposed on doctors of medicine as a condition of continued membership therein. Such standards include, but are not limited to, the Principles of Medical Ethics which have been and may be from time to time hereafter adopted by the American Medical Association and as interpreted by the Judicial Council thereof.

Comment.—Compare with Constitution, Article III, Section 6. This constitutional provision applies to the society rather than to the individual member. Compare with Bylaws, Chapter 2, Section 6. The proposed Section does not materially alter this present Bylaw provision. However, the standards of conduct are broadened beyond those prescribed in the Principles of

Medical Ethics, and the provision is placed in a more logical position.

Sec. 2—*Grounds for Discipline.* The conduct of a member of this or any of its component county societies which is contrary to the standards prescribed in this Chapter shall be ground for discipline, whether or not the act or omission occurred in the course of a physician-patient relationship. Without limitation of the foregoing, any of the following shall also be ground for discipline:

(a) Unprofessional and dishonest conduct as defined by Act 237 of Michigan Public Acts of 1899, as amended.

(b) Conviction of a felony under the laws of any state or of the United States of America.

(c) Revocation or suspension of license to practice medicine.

(d) Violation or disregard of the constitution, bylaws, principles, rules, regulations or orders of this society or of the member's component county society, or of the American Medical Association.

(e) Defaming or otherwise unjustly reflecting on the integrity, character or professional performance of a fellow member.

(f) Any conduct which is prejudicial to or tends to expose the medical profession or this society or a component county society to contempt or reproach, or which is in anywise contrary to ethics, honesty or good morals.

Comment.—Present Bylaws specifically name but one ground for discipline—revocation of license to practice medicine. (See Chapter 6, Section 12.) By implication only is violation of the Principles of Medical Ethics made ground for discipline. The present Bylaws do not specifically so state. (See Chapter 2, Section 6.) The proposed section adds several specific grounds for discipline and broadens the general grounds. The Medical Practice Act referred to in subsection (a) above lists the following as constituting "unprofessional and dishonest conduct:"

"(a) The procuring, aiding or abetting in procuring a criminal abortion.

"(b) The obtaining of any fee on the assurance that an incurable disease can be permanently cured.

"(c) The willfully betraying of a professional secret.

"(d) All advertising of medical business in which grossly improbable statements are made, or where specific mention is made in such advertisement of venereal disease or diseases of the genito-urinary organs.

"(e) Having professional connection with, or lending one's name to an illegal practitioner of medicine; or having professional connection with any persons or any firm or corporation who advertises contrary to the provisions of this section, or with any person who has been convicted in a court of competent jurisdiction under the provisions of this section.

"(f) All advertising, of any nature or kind, of any medicine, or of any means for the regulation or reestablishment of the menses.

"(g) All advertising of any matter of an obscene or offensive nature derogatory to good morals or contrary to Sections 34 to 36, inclusive, of Act No. 328 of the Public Acts of 1931, being Sections 750.34 to 750.36 inclusive, of the Compiled Laws of 1948.

"(h) Employing or being employed by any capper, solicitor or drummer for the purpose of securing patients; or subsidizing any hotel or boardinghouse with a like purpose, or paying, or offering to any person, money or any other thing of value with a like purpose, or advertising to do so in any form whatsoever; or the division of fees in a consultation or a reference of a patient to a specialist, when no actual professional service is rendered by the physician referring the case, without the knowledge of the patient or the person concerned in the payment thereof.

"(i) Being guilty of offenses involving moral turpitude, habitual intemperance, or being habitually addicted to the use of morphine, opium, cocaine, or other drugs having a similar effect; or of prescribing or giving away any substance or compound containing alcohol or drug for other than legal and legitimate therapeutic purposes.

"(j) Being guilty of making representations or claims of ability to cure or relieve human ailments by secret methods."

Sec. 3. *Discipline—Definitions and Purpose.* Discipline as used in this chapter shall include reprimand, suspension and expulsion. Any such discipline is not punishment for wrongdoing but is intended solely as a measure necessary to maintain the dignity, integrity, purposes and high principles of this society and of its component county societies.

Comment.—This section is new. It limits discipline to three specific types. The purpose of discipline is emphasized to be nonpunitive. Such explanation may be useful in court should discipline be challenged as being punitive in nature.

Sec 4. *Authority to Discipline.* A component county society may discipline any of its members on any of the grounds and in the manner set forth in this chapter; provided, that every member of this society and of any component county society against whom disciplinary action is proposed or taken shall be accorded the benefit of the procedures in this chapter prescribed, any provisions of the constitution or bylaws of any component county society to the contrary notwithstanding. The expulsion or suspension of any member from a component county society shall be subject, however, to the right of appeal to and review by The Council of the Michigan State Medical Society and the Judicial Council of the American Medical Association as hereinafter provided. Any component county society which has more than 150 active members may by appropriate provisions contained in its constitution or bylaws delegate its authority and power to discipline any of its members to the governing board of such society, in which event all of the functions, duties and powers of a component county society as set forth in this chapter shall be exercised and carried out by such governing boards in like manner and on the same conditions as prescribed for a component county society. Unless otherwise specifically provided by the constitution or bylaws of such component society, any order of expulsion or suspension made by such governing board shall be subject to the approval of the component society in the same manner as may be provided for the approval of any other report of such governing board.

Comment.—The first part of this section is a rewrite of present Chapter 6, Section 1. However, it limits appeals to orders of expulsion or suspension. Thus, reprimands would no longer be appealable. Authority is given to the councils of larger societies to expel or suspend. This is not specifically provided in the present bylaws. Under this proposed section, the order to discipline made by a council of a society is not subject to appeal as in the present bylaws (see Chapter 6, Section 10, last sentence). The council action is to be merely subject to approval by the society in the same manner as any report of the council.

Sec. 5. *Ethics Committees.* Every component county society shall have a standing committee designated the Ethics Committee, charged with duties and powers concerning the maintenance of standards of conduct and discipline of members, including the duties and powers specifically set forth in this chapter. Whenever any matter of alleged misconduct is referred to an Ethics Committee, such Committee shall have the right to conduct investigations and hearings thereon, both informal and formal, and to make findings of fact and recommendations for discipline. It may be assisted by legal counsel for its component county society.

Comment.—This section is new. It requires every county society to have an ethics committee, and pre-

scribes its duties and powers specifically. Also mentioned is the right to have legal counsel to assist or represent the ethics committee.

Sec. 6. *Request for Investigations.* Disciplinary measures shall be initiated by a request of an active member or committee of the society for the investigation of misconduct alleged to have been committed by a member of any component county society. All such requests shall be in writing, signed by one or more active members of the same component county society, filed in duplicate with the component county society, and, as soon as may be, shall be referred to the ethics committee of such society. Each request shall contain a brief statement of the details of each act of alleged misconduct and the approximate time and place thereof. Before any such request and statement shall be considered by any such ethics committee, a copy thereof shall be mailed to the respondent at his last known address by registered or certified mail. It shall be the duty of the respondent, within fifteen days after the receipt of such copy, to make a full and fair disclosure in writing of all material facts and circumstances pertaining to his conduct in relation to the matters set forth in such statement. Such written disclosure shall be mailed to the secretary of the component county society by registered or certified mail. The deliberate failure to make such disclosure or any knowing misrepresentation or concealment of any such facts or circumstances by the respondent shall be ground for discipline.

Sec. 7. *Investigations—Reprimand—Dismissal.* The ethics committee shall make an informal investigation of the matters set forth in any such request and statement. On the conclusion of such investigation, the results thereof shall be informally considered by the committee at a meeting thereof. It shall be the duty of the respondent to attend such meeting on request, and to answer fully and fairly all questions pertaining to his conduct that may be put to him by any member of the committee. If the ethics committee decides that there are no grounds for discipline, the committee may authorize the dismissal of the matter. If, in the judgment of the committee, the material facts disclosed by the investigation are true and are sufficient to warrant only a reprimand, the ethics committee may forthwith administer such reprimand without a formal complaint, unless a formal hearing is demanded by the respondent. It shall be the duty of the ethics committee to report such dismissal or reprimand in writing to the component county society, together with the reasons thereof.

Comment.—Proposed Sections 6 and 7 are new. They provide that disciplinary measures be initiated by a request for investigation, rather than by formal complaint, as is now provided in Chapter 6, Section 3. They lay the foundation for summary discipline in many types of cases, which, under present procedures, are seldom attempted. They provide for informal action in cases of minor violations. Thus, perhaps most matters may be quickly and effectively disposed of without cumbersome and lengthy formal procedures. These sections are intended to exact discipline much more expeditiously and simply in the great majority of cases. Their only counterpart is to be found in present Chapter 6, Section 2.

Sec. 8. *Formal Complaint and Notice of Hearing.* If the ethics committee finds there is reasonable cause to believe that the respondent is guilty of misconduct warranting suspension or expulsion from membership, or if the respondent demands a formal hearing, a formal complaint setting forth the facts of the alleged misconduct shall be prepared by the ethics committee and subscribed by the chairman or vice chairman thereof. A copy of such complaint shall be filed with the component county society. Thereupon, it shall be the duty of the ethics committee or its chairman to fix the time and place for a formal hearing thereon. A written notice of such hearing, together with a copy of the formal complaint, shall be served on the respondent by registered or certified mail not less than thirty days before the date of such hearing. The notice of hearing may be signed on behalf of the committee by its chairman or any member thereof. The giving of such notice shall be conclusive evidence of the finding of reasonable cause to believe that the respondent is guilty of the alleged misconduct.

Comment.—Compare with present Chapter 6, Sections 3 and 4. Please note that under the proposed section the matter has already been screened by the ethics committee. Thus, there will doubtless be many fewer cases to be formally heard. This proposed section also supplies a provision as to who shall fix the time and place of the hearing. There is no provision for this in the present bylaws.

Sec. 9. *Answer and Formal Hearing.* It shall be the duty of the respondent to file an answer to the formal complaint. Such answer shall be in writing, signed by the respondent, and filed with the ethics committee within fifteen days after service of the copy of formal complaint. The answer shall admit or deny each material allegation contained in the complaint, and shall set forth any special defenses which the respondent claims to have. If the answer is not filed within the time hereby limited, the complaint may be taken as confessed. It shall be the duty of the respondent to appear before the ethics committee in person at the time and place specified in such notice, and may be represented by counsel. At such formal hearing, it shall be the duty of the respondent to answer fully and fairly all questions pertaining to his conduct which may be put to him by any member of the committee or by counsel for the component county society. Formal hearings shall be conducted fairly, but not necessarily in accordance with all rules governing court trials. A stenographic record shall be made of the proceedings at such hearing.

Comment.—Compare with present Chapter 6, Sections 5 and 7. The proposed section amplifies and clarifies present provisions for answer and hearing.

Sec. 10. *Findings and Report.* If upon formal hearing the ethics committee finds that the charges of misconduct are not established by a preponderance of the evidence, the committee shall dismiss the complaint and shall so report to the component county society. If the committee finds that the charges of misconduct or any of them are established by a preponderance of evidence and are such as to warrant discipline by way of a reprimand, the committee shall administer such reprimand, and shall make a written report thereof, together with its findings of fact, to the component county society. If the committee finds that the charges of misconduct or any of them are established by a preponderance of evidence and are such as to warrant suspension or expulsion from membership by action of the component county society, the committee shall make a written report of the proceedings had before the committee, and shall include in such report a certified transcript of the evidence, including copies of all documents taken in proof, a summary statement of all previous misconducts for which the respondent has been disciplined, and the committee's findings of fact and recommendations for discipline. Every such report shall be signed by not fewer than a majority of the members of the ethics committee, and shall be filed with the component county society.

Comment.—Compare with present Chapter 6, Section 6. Please note that under new procedure if discipline by reprimand only is found warranted, the report to the society is greatly simplified. No transcript of testimony is required. Under such circumstances, the proposed procedure is less cumbersome and less expensive. In cases where reprimand is recommended, the society as such is called on to do nothing more than to accept the report of the ethics committee. In

the more serious cases, calling for suspension or expulsion, the new procedure follows substantially that now provided. There is a minor change in that if the respondent wishes a copy of the stenographic transcript, he would have to order and pay for his own.

Sec. 11. *Action by Society.* Following the filing of any such report of an ethics committee recommending suspension or expulsion, the component county society shall, at a regular meeting thereof, or at a special meeting called for such purpose, consider and act upon the report and recommendation of the ethics committee. Suspension or expulsion from membership shall require the affirmative vote of not less than two-thirds of members present at any such meeting and entitled to vote thereat, but not including the respondent, who shall have no right to vote on the question. If any measure for discipline is adopted by a component county society, an appropriate order in accordance therewith shall be signed by the president and secretary of such society and a copy thereof served on the respondent and on the Michigan State Medical Society.

Comment.—Compare with present Chapter 6, Sections 8 and 9. The two-thirds vote to suspend or expel remains the same. However, the order of discipline would not require the inclusion of findings of fact, conclusions and reasons as provided by present Section 8. The findings and conclusions of the ethics committee would stand in their place, although the society may reach other findings and conclusions. This should result in considerable simplification.

Sec. 12. *Action on Report—Additional Testimony.* Whenever an ethics committee files a report with its component county society recommending suspension or expulsion as herein provided, the respondent shall be served with a copy of the committee's findings of fact and recommendations so filed, not less than twenty days before the meeting of the component county society at which such recommendations are to be considered and acted on, together with a notice of the time and place of such meeting. The respondent may thereupon file with the society, not less than ten days before such meeting, reasons in writing why the recommendations of the ethics committee should not be adopted. The respondent may also at such meeting appear in person and offer any further reasons why he should not be suspended or expelled from membership; provided, however, that at such meeting no testimony as to any matter of misconduct shall be taken. If it is decided at such meeting that the interests of justice require additional testimony to be taken, the matter shall be re-referred to the ethics committee for such purpose. In such event the ethics committee shall cause such additional testimony to be taken promptly, and shall make a supplemental report thereon, including findings of fact and recommendations based thereon, and shall file the same, together with a certified transcript of such additional testimony with the component county society. A copy of the findings of fact and recommendations contained in the supplemental report shall be served on the respondent as required in the case of an original report, and thereafter the same procedures shall be followed, as in this section, provided in relation to an original report.

Comment.—This is a new provision. It permits a matter to be remanded to the ethics committee for further proof, and avoids a further lengthy hearing before the entire society. This is also a marked simplification.

Sec. 13. *Finality and Effectiveness of Order.* No order of suspension or expulsion from membership shall be final or effective until the respondent shall have been given the opportunity to exhaust his remedy of appeal and review in accordance with the provisions of this chapter.

Comment.—This section is new and intended for the protection of the respondent. It has been pretty well agreed that he should not stand suspended or expelled while he is taking an appeal.

Sec. 14. *Appeal Procedure.* Any member deeming himself aggrieved by an order of suspension or expulsion may appeal to The Council of the Michigan State Medical Society. Notice of such appeal shall be in writing, signed by the appellant and shall set forth specific reasons for his appeal. The notice shall be served on The Council of the Michigan State Medical Society and on the appellant's component county society by registered or certified mail, addressed to the respective secretaries thereof. Unless notice of appeal is so served within fifteen days following the service on the member of a copy of the order of the suspension or expulsion as hereinabove provided, such member's right of appeal and review shall be conclusively treated as having been waived, and the order of suspension or expulsion shall thereupon become final and effective. On receiving notice of appeal, the component county society shall forward to The Council of the Michigan State Medical Society the complete record of the matter, including copies of the order appealed from, all reports of the ethics committee, formal complaint, answer, transcript of testimony, exhibits and all other pertinent writings and data on which the order of suspension or expulsion was based. The Council shall thereupon transmit such record, together with notice of appeal, to the Committee on Ethics of the Michigan State Medical Society for consideration, study and report thereon. The Committee on Ethics shall promptly study and review such record on appeal and may request the component county society or the appellant to furnish such further information in writing as the Committee deems necessary for the proper and full review of the matter. Written arguments may be filed with the Committee on Ethics by the component county society and the appellant within thirty days following notice of appeal. Upon conclusion of its study and review of the record, the Committee on Ethics shall make a report in writing to The Council of the Michigan State Medical Society, and shall include in such report all its findings concerning the record and the merits of the appeal, and its recommendations in relation thereto. The Council shall after the filing of such report review the record on appeal, written arguments and recommendations of the Committee on Ethics, and decide by a majority vote to affirm, modify or reverse the order of expulsion or suspension appealed from, or remand the matter for further action by the component county society. A copy of such decision shall be promptly served on the appropriate component county society and on the appellant by registered or certified mail. Unless within twenty days after service on them of a copy of such decision the component county society or the appellant shall take an appeal to the Judicial Council of the American Medical Association, the right to such further appeal and review will be conclusively treated as having been waived, and the decision of The Council of the Michigan State Medical Society shall be final and effective.

Comment.—Compare with present Chapter 6, Section 11. The proposed section follows most of the present procedures. However, it is to be noted that a formal hearing before The Council of the Michigan State Medical Society is no longer required. The Council will treat the report of the Committee on Ethics, with the record before it, in the same manner as the report of any other committee of The Council. The review is intended to be made essentially by the Committee on Ethics. Oral arguments by the appellant before the entire Council will no longer be necessary. It is to be noted that the appeal time has been shortened from sixty to twenty days.

Sec. 15. *Appeal to Judicial Council of American Medical Association.* The appellant, if he was a member in good standing of the American Medical Association at the date of his alleged misconduct, may take

a final appeal from the decision of The Council of the Michigan State Medical Society to the Judicial Council of the American Medical Association.

Comment.—Compare with present Chapter 6, Section 11, last sentence. Important change is that under new procedure there would be no appeal from The Council of the Michigan State Medical Society to the House of Delegates, as now provided in Chapter 6, Section 10. It is also to be noted that unless the appellant is a member of the American Medical Association, he cannot appeal to its Judicial Council.

Sec. 16. *Exception to Procedures.* Any member of a component county society whose license to practice medicine shall have been revoked or suspended, or who shall have been convicted of a felony in any state or federal court, may be summarily expelled from his component county society without benefit of or resort to the procedures prescribed in this chapter. In recognition of the legal right of a person to appeal from such revocations, suspensions or convictions, no such summary expulsion shall be effective until the order revoking or suspending license to practice medicine or the judgment convicting of a felony shall have become final and effective.

Comment.—Compare with present Chapter 6, Section 12. Please note added grounds for summary expulsion and protection afforded the member until the grounds become final and effective.

Sec. 17. *Effect of Suspension or Expulsion.* Whenever a member of any component county society is suspended or expelled from such society, he shall thereby also stand automatically suspended or expelled from the Michigan State Medical Society.

Comment.—Compare with present Chapter 2, Section 7. The present section may be deleted so as not to be redundant with this proposed section.

Sec. 18. *Construction.* Procedures under this chapter of the bylaws shall be as summary as may be reasonable. No investigation or proceeding hereunder shall be held invalid by reason of any non-prejudicial irregularity or for any error not resulting in a miscarriage of justice. The provisions of this chapter shall be liberally construed for the maintenance of the dignity, integrity, purposes and high principles of this society and its component county societies, and shall apply to all pending matters of misconduct as far as may be practicable and to all future matters, notwithstanding the alleged misconduct occurred prior to the adoption of the provisions of this chapter as part of the Bylaws of the Michigan State Medical Society.

Comment.—This section is new and declares a policy against hypertechnicality.

SUMMARY OF MAJOR CHANGES

Eliminations from Present Chapter 6.—

1. Formal complaints and formal hearings for minor infractions.
2. Right to appeal from reprimand.
3. Right to appeal from council of county society to county society.
4. Right to appeal from MSMS Council to House of Delegates.
5. Right of appeal by nonmembers of AMA to Judicial Council of AMA.
6. Necessity for following prescribed procedures when member is convicted of a felony.
7. Certain long notices.

Additions to Present Chapter 6.—

1. Standards of conduct.
2. Specification of grounds for discipline.
3. Investigation procedures.
4. Summary method of disposing of minor infractions.
5. Protection of member while he takes appeal.
6. Increased responsibilities and duties of county ethics committee.
7. Clarification and better specification of procedures.
8. Rules for interpretation of bylaw provisions.

(End of Committee Reports)

12. *Matter referred to The Council by the 1956 MSMS House of Delegates:* Resolution re establishment of Department of General Practice in medical schools (see main Annual Report, page 90): University of Michigan Dean A. C. Furstenberg, M.D., on September 16, sent this supplementary information:

"In view of the fact that this matter is now being considered by a special committee composed of representatives of the American Medical Association, the Association of American Medical Colleges, and other organizations, I think it would be well now to wait until this group has reached their conclusions. No doubt they will have recommendations to make, and I shall bring them to the attention of the Executive Faculty for serious consideration when they are available."

Recommendations

We respectfully invite to your attention the four recommendations in the original Annual Report of The Council, printed in the Handbook on page 95. They read as follows:

1. That The Council be authorized to send MSMS representatives to Washington, D. C., in 1958, on the occasion of the Annual Michigan Day, as recommended by last year's House of Delegates.
2. That serious consideration be given to the recommendations of the Committee on Mediation, Ethics and Grievance.
3. That the Legislative Committee's resolution re registration of doctors of medicine be approved.
4. That The Council recommends that the Michigan State Medical Society dues for 1958—for one year only—be increased $50 to raise sufficient funds to start the MSMS building as soon as possible.

The Council respectfully submits two additional recommendations:

5. That The Council be authorized to pursue its study of group life insurance to the end that MSMS can offer as an added benefit of membership the best program tailored to the needs of Michigan's medical men.
6. That The Council be authorized to arrange councilor conferences prior to the Annual Session, to continue communication with and impart information to the membership.

Respectfully submitted,
D. Bruce Wiley, M.D., *Chairman*
W. B. Harm, M.D., *Vice Chairman*
A. E. Schiller, M.D.
O. B. McGillicuddy, M.D.
H. J. Meier, M.D.
Ralph W. Shook, M.D.
C. Allen Payne, M.D.
H. H. Hiscock, M.D.
H. B. Zemmer, M.D.
L. C. Harvie, M.D.
G. B. Saltonstall, M.D.
W. S. Stinson, M.D.
W. M. LeFevre, M.D.
B. T. Montgomery, M.D.
T. P. Wickliffe, M.D.
B. M. Harris, M.D.
G. Thomas McKean, M.D.
William Bromme, M.D.
K. H. Johnson, M.D., *Speaker*
J. J. Lightbody, M.D., *Vice Speaker*
Arch Walls, M.D., *President*
G. W. Slagle, M.D., *President-elect*
L. Fernald Foster, M.D., *Secretary*
W. A. Hyland, M.D., *Treasurer*
W. S. Jones, M.D., *Immediate Past President*

* * *

The report concerning Michigan Medical Service was referred to the Reference Committee on Medical Service and Prepayment Insurance.

The Healing Arts Committee report was referred to the Reference Committee on Resolutions.

The report of the Mediation-Ethics-Grievance Committee was referred to the Reference Committee on Constitution and Bylaws.

VII. FIFTY-YEAR AWARDS

THE SPEAKER: We are very happy to welcome these fifty-year members. I know that to each of the rest of us it is a distinct honor to realize that these fine men have been in the profession of medicine for this period of time. [*Applause*]

Fifty-year pins were awarded to the following members:

Burton R. Corbus, M.D., Grand Rapids
Fred J. Drolett, M.D., Lansing
Clarence Gillette, M.D., Niles
C. M. Mercer, M.D., Battle Creek
Gerhardus J. Stuart, M.D., Grand Rapids
S. W. Thieme, M.D., Ravenna
Henry E. Thompson, M.D., Detroit
John VerMeulen, M.D., Grand Rapids
Udo J. Wile, M.D., Ann Arbor
Aaron V. Wenger, M.D., Grand Rapids.

* * *

The meeting was recessed at 1:10 p.m.

MONDAY AFTERNOON SESSION

September 23, 1957

The meeting reconvened at 2:30 p.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

VIII. REPORT OF DELEGATES TO AMA

By W. A. Hyland, M.D.

It is usual for the Chairman and delegates to the American Medical Association to report on what has transpired since the last meeting of the AMA. The report of the June session of the AMA in New York is printed in the Handbook, pages 103 to 111 inclusive.

Results of the Seattle meeting last December were reported in the February JOURNAL with the proceedings of the December meeting of The Council of the Michigan State Medical Society.

* * *

THE SPEAKER: The report will be referred to the Reference Committee on Officers' Reports.

IX. REPORT OF THE WOMAN'S AUXILIARY

By Mrs. A. C. Stander

The Woman's Auxiliary is very happy to have the opportunity to report to her Society the work accomplished this past year. The theme for our year was "Full-Time Citizenship." This theme was picked not only because it was a Presidential election year but because it should be a daily task for all of us.

Your Auxiliary was happy to be of service at election time with the "Get-Out-The-Vote" campaign. We set up telephone centers in dozens of important spots throughout the State. At this time we again realized the importance of organization. Where we were organized we quickly accomplished the goal you set; but in the unorganized localities we were helpless. Fortunately, the unorganized areas are dwindling as wives of doctors realize they, too, have a part and place in the medical profession.

At present we have forty-six organized county auxiliaries with a membership of 3,023. This constitutes only 50 per cent of the wives of members of the Society.

In county auxiliary programming, Mental Health and Safety took top billing. In Public Relations we did a great deal of studying and talking about science fairs. It seems to be a "natural" for a group such as ours.

This next year the National Science Fair will be held in Flint.

We are also happy to report that over 50 per cent of our auxiliaries are working in one of the phases of civil defense. We have kept our membership informed on all pertinent medical bills. Much work has been done on the Jenkins-Keogh bill. Even though the Treasury admitted the validity of the principles involved, they were reluctant to give up the revenue.

In *Today's Health* we work so hard for such little results. Since all offices of doctors have magazines, and since you can have a subscription to *Today's Health* for the same price of a comic magazine, perhaps you can tell us how we can sell it to you.

In the American Education Foundation we had a grand total this year of $3,946.47, an average of over $1.30 per member. Although this is a small contribution, we at least feel we are helping to maintain the independence of our medical schools from government control.

Our Tuberculosis Speaking Project included eighty-eight schools, with 2,910 students entering. It was the Auxiliary President's pleasure to award the winners with gold keys during a broadcast from Lansing.

One always keeps the very best for the last. Michigan leads the nation with 357 Recruitment Clubs in the high schools, with over 5,000 students as members. These Recruitment Clubs include future nurses, technologists and other allied medical fields. The money contributed to the Recruitment Clubs, loans and outright scholarships, came to a grand total of $10,410. This year with our assistance thirty-two nurses graduated—eight practical, three postgraduate nurses, and five medical students.

The most inspiring and rewarding experience has been for the Auxiliary President to travel over 8,000 miles within this State and view the work of the county auxiliaries. Individual members, too, by participating in almost every type of civic venture, make for good public relations and good community relations. The intangible value of these endeavors is difficult to assess, but its community value is nevertheless important.

Looking over our year's activities, I feel there is perhaps one link in the chain that could be strengthened. We are your Auxiliary—your helpmates in medical work—your wives. However, there is no definite method of liaison or definite instruction from your Society. Your Auxiliary is very busy carrying on in many fields of medical auxiliary work—but is it the most important work to be accomplished in our State? Does it meet with the full approval of the Society?

The Advisory Committee has been very helpful, but appears to be too remote from the active administration of the Society. Science Fair is one example. Since the National will be in our State, we have tried hard to have a plan of work for local auxiliaries to follow if they so wish, but there has never been time to sit down with our Society and talk this over. These Science Fairs may be most important as good public relations in our communities, or perhaps you may feel this is not a project that we should undertake. I do not know the answer. Perhaps a discussion of Auxiliary affairs at an executive meeting of The Council may crystallize what the Society wishes of its Auxiliary.

The Auxiliary wishes to thank the fine staff in Lansing; Mr. Warren Tryloff, for his great help with our Auxiliary News; our Society, for the financial support of our convention, and Dr. J. E. Hauser, our Advisory Chairman, who has been a real friend to us all year.

Thank you again for giving us the time during your very important meeting to tell you about your Auxiliary's work during the past year.

THE SPEAKER: The report will be referred to the Reference Committee on Officers' Reports.

X. REPORT OF MICHIGAN STATE MEDICAL ASSISTANTS

By Miss Doris Jarrad

During the past year representatives of the Michigan State Medical Assistants' Society attended functions of the Michigan State Medical Society and its ancillary groups.

We were represented in Milwaukee, Wisconsin in October, 1956, at the first annual meeting of the American Association of Medical Assistants. Miss Hallie Cummins, our Immediate Past President, was selected as Michigan's delegate to the National Board of Directors, and served as Chairman of their Executive Committee this first year.

Many Michigan members are serving on and heading committees in the national organization. R. W. Shook, M.D., of Kalamazoo, Vice Chairman of the State Advisory Committee, was among the physicians attending. The advice of the Advisory Board on the many problems concerning the adoption of the first Constitution and By-laws was valuable and very much appreciated. The second annual meeting will be held in San Francisco on October 4-5-6, and Michigan will be represented by five delegates and several alternates.

Two President's Conferences were held this year. These conferences are training programs for officers and standing committee chairmen of component medical assistant societies. The themes of these two conferences were public speaking and an organization workshop with presentation of job manuals for each officer and standing committee chairman. This latter subject will be presented to the national organization in October in an open forum.

A study was made of a method of voting by mail for the annual election of officers, and the necessary changes in the Constitution and Bylaws to accommodate this are being presented to the membership at this annual session for their decision. A study was made by the Budget and Finance Committee with the resulting recommendation that the State dues be increased from the 1949 budget figure of $2 per member to $5. The necessary change in the Constitution and Bylaws to allow this increase is also being presented to the membership for their approval.

In May our Publicity Committee was reorganized, and *The Bulletin,* official publication of the Michigan State Medical Assistants' Society, was printed and mailed to each member for the first time. *The Bulletin* is to be issued quarterly, and it is hoped that with an increase in advertising it will be possible to carry conference and convention addresses so that all members may benefit from this fine material.

A Standing Committee on Education was initiated this year, and after contacting various higher educational units in Michigan the recommendations of this Committee were formulated and presented to the Michigan State Medical Society's Advisory Committee to Medical Assistants and to The Council of the Michigan State Medical Society.

In essence, the recommendations were: The Michigan State Medical Assistants' Society wishes to hold an Educational Seminar annually, coincidental with the Michigan Clinical Institute. This Educational Seminar is to complement the educational session held at the annual meeting of the Michigan State Medical Assistants' Society. Both of these educational sessions will be designed to tie in and be a part of a year-round extension course for medical assistants.

It is the recommendation of the Education Committee that the University of Michigan be requested to establish this extension course, and that some credit or award for attendance at, and completion of, the course be given.

Further, that the Michigan State Medical Society lend its name to this certificate, and that the Michigan State Medical Society request the Michigan Foundation for Medical and Health Education to lend its name to such a certificate, and that these organizations use their facilities to publicize the names of successful participants in the courses.

The Council approved these recommendations, and preliminary plans have been made to hold the first of these Seminars on March 19, 1958, at the Fort Shelby Hotel.

We are indebted to Mr. Jack Pardee and Mr. Hugh Brenneman of the Public Relations Department of the Michigan State Medical Society for their valuable assistance in this program.

We now have close to 1,000 members. Two additional groups have formed in the Upper Peninsula. The Upper Peninsula Medical Assistants' Society held its first annual convention in June. This was held in conjunction with the Upper Peninsula Medical Society's annual meeting.

Branch and Eaton Counties have become component societies this year. Our Membership Committee has contacted the county medical societies and medical assistants in nineteen unorganized counties, and it is hoped that next year these groups will be formed. We wish to thank the county medical societies, Michigan Medical Service representatives, and drug detail men for their enthusiasm and help in making these organizational meetings possible.

The Michigan State Medical Assistants' Society was contacted by the Ontario Medical Association for suggestions and advice on the organization of the Ontario Medical Secretaries' Association. The State Medical Society graciously "hosted" this meeting.

The Michigan State Medical Assistants' Society is grateful to our Advisory Committee and The Council of the Michigan State Medical Society for the confidence and support entrusted to us in our undertakings. We appreciate the honor and privilege afforded by this trust.

We would like to extend an invitation to each of you to attend any or all of our functions being held at the Manger-Rowe Hotel on Wednesday and Thursday of this week.

THE SPEAKER: This report will be referred to the Reference Committee on Officers' Reports.

XI. SELECTION OF MICHIGAN'S FOREMOST FAMILY PHYSICIAN

We now come to the selection of Michigan's Foremost Family Physician for the year 1957. As you know, three names have been submitted and selected by The Council for presentation to you. I will ask the Secretary to read the biographies, following which the vote will be by ballot.

[Secretary Foster read the biographies of the nominees for Michigan's Foremost Family Physician.]

THE SPEAKER: I should like to appoint the following members as tellers: Drs. Russell Fenton, R. A. Rasmussen, A. W. Strom and J. G. Bielawski.

[*Balloting.*]

THE SPEAKER: I am happy to announce that the result of the voting shows that Dr. Van Riper has been selected as Michigan's Foremost Family Physician of the Year. [*Applause*]

XII. RESOLUTIONS AND MOTIONS

XII—1. PROPOSED INCREASE IN DUES FOR BUILDING FUND (THORUP)

D. W. THORUP, M.D. [Berrien]: I have a resolution from the Berrien County Medical Society:

"Whereas, the requested increase in dues of $50 is unusual and proposes the expenditure of a large amount of the Society's funds; therefore, be it

"RESOLVED: That (1) further consideration be

given to designating this sum as an assessment rather than an increase in dues.

"(2) Action in this matter be deferred until such time as the county societies and, through them, the entire membership of the Michigan State Medical Society, be given further definite information as to the necessity of constructing improved headquarters, the staff to be housed, the location, the plan of construction, the cost, the estimate of permanence, funds already available, and any other pertinent information, in order that the membership may be better informed regarding this activity of the State Society and better judge the advisability of such an expenditure at this time.

"(3) Assurance be given that this additional added amount will be for one year only.

"(4) Payment of any such sum, if it be levied, be arranged in divided amounts."

This resolution was referred to the Reference Committee on Reports of The Council.

XII—2. RE PROPOSED INCREASE IN DUES FOR BUILDING FUND (BABCOCK)

W. W. Babcock, M.D. [Wayne]:

"Whereas, a true estimated total cost for the new headquarters of the Michigan State Medical Society is not known, and

"Whereas, this cost will determine the method of procurement of monies for the project; therefore, be it

"RESOLVED: That The Council of the Michigan State Medical Society and/or the Committees on Site and Big Look be directed to explore the cost of a suitable real estate; and, furthermore, be it

"RESOLVED: That an architect be employed to draw up plans and specifications and obtain an estimate of the total costs, fees for this to be taken from the Building Fund; and be it further

"RESOLVED: That when total costs are estimated, that methods of payment be presented to the members of the House, and until such times there shall be no further increase in MSMS dues relating to a building fund."

The Speaker: This will be referred to the Reference Committee on Reports of The Council.

XII—3. RE BYLAWS AMENDMENTS AND MEMBERSHIP (Chapter 2, Section 1—Regulation of Membership)

E. H. Fenton, M.D. [Wayne]:

"Whereas, Chapter 2, Section 1 of the MSMS Bylaws states: '. . . each reputable practitioner of medicine who meets the requirements specified in the Bylaws, Chapter V, shall be eligible for active membership,' and

"Whereas, this statement limits the prerogative of the county medical society to set its own qualifications for membership, and

"Whereas, the implication that membership is a right and not a privilege raises legal questions and may encourage legal redress; therefore, be it

"RESOLVED: That Chapter 2, Section 1 of the Bylaws be deleted and the following substituted: 'Section 1. Admission to membership of any component county society is not a matter of right, but one of privilege, to be accorded or withheld in the sole discretion of such society. Every component county society may determine the manner of electing its members and shall be the sole judge of the qualifications of applicants for membership thereof'."

The Speaker: This will be referred to the Reference Committee on Constitution and Bylaws.

XII—4. RE FREE CHOICE OF PHYSICIAN IN ALL MEDICAL SERVICE PLANS

O. J. Johnson, M.D. [Bay-Arenac-Iosco]: This resolution is introduced at the request of the Bay-Arenac-Iosco County Medical Society:

"Whereas, it appears imminent that there will be new types of medical service offered to the public by a new organization in Michigan, and

"Whereas, it is evident in the other states that these situations can be best dealt with by a firm prearranged program including the free choice of physician, and inculcating the ethics and proper relationship of the patient, the medical profession and a third party intervention; now, therefore, be it

"RESOLVED: That The Council of the Michigan State Medical Society proceed with dispatch to draw up the proper guide for relationship with these new organizations, similar to those submitted to the House of Delegates of the AMA in New York in June, which guides were drawn up by the Council on Industrial Health and the Council on Medical Service of the AMA."

The Speaker: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XII—5. RE FEDERATED FUND RAISING DRIVES

R. V. Walker, M.D. [Wayne]: This is a resolution from Wayne County on fund raising drives:

"Whereas, single disease health agencies emphasize the great emotional appeal of certain diseases and tend to distort their true relation to total health, and

"Whereas, doctors of medicine in the final analysis are responsible for the health of the nation, and any voluntary health agency expenditure or health agency fund-raising campaign that is not in conformity with the prevailing policy of their medical society can be detrimental to the total good, and

"Whereas, the Michigan United Fund is well organized to adequately conduct State-wide fund raising drives for health agencies as well as analyze programs and budgetary needs; be it

"RESOLVED: That the Michigan State Medical Society House of Delegates approve in principle federated fund raising for all voluntary health agencies, and the raising of funds for such federation through a single drive at either the local or State-wide level."

The Speaker: This resolution will be referred to the Reference Committee on Miscellaneous Business.

XII—6. RE ESTABLISHMENT OF FULL-TIME CHAIRS IN TWO MEDICAL SCHOOLS ON PREVENTIVE MEDICINE AND PUBLIC HEALTH

R. W. Teed, M.D. [Washtenaw]:

"Whereas, disease prevention is a function of medical practitioners in the locales of their practice, and

"Whereas, the epidemiological approach to preventive medicine is designed primarily for those who expect to engage in private practice, and

"Whereas, all medical students and practicing doctors of medicine should be adequately trained in the prevention of disease and should have full realization of and carry out their responsibilities in public health, not only to their own patients but also to such agencies as are designated by custom and statute with responsibilities for the public health and welfare, and

"Whereas, it is the firm conviction of this Section on Preventive Medicine and Public Health of the Michigan State Medical Society that the curricula as presently organized in the medical schools of the universities of this State will be improved by the addition of courses of training in public health and preventive medicine, organized with full departmental status; now, therefore, be it

"RESOLVED: That the Michigan State Medical Society House of Delegates request that The Council of the Michigan State Medical Society suggest the

establishment of a full-time Chair of Preventive Medicine and Public Health be considered by each of the two medical schools located in the State of Michigan."

Resolved portion of this resolution was amended by reference committee (See page 124)

THE SPEAKER: This resolution will be referred to the Reference Committee on Hygiene and Public Health.

J. R. RODGER, M.D. [Northern Michigan]: I have three resolutions.

XII—7. RE HONORARY MEMBERSHIP FOR W. J. BURNS, LL.B.

"Whereas, Mr. William J. Burns has served the cause of organized medicine for thirty-two years, of which five were with the Wayne County Medical Society and the last twenty-two have been with the Michigan State Medical Society, and

"Whereas, he has maintained an unusually effective liaison with many other allied organizations to the mutual advantage of all concerned, and

"Whereas, he has given of his time and efforts enthusiastically and unselfishly, and has contributed in no small degree to the present high position of leadership of the Michigan State Medical Society; therefore be it

"RESOLVED: That this House of Delegates grant an Honorary membership in the Michigan State Medical Society to Mr. William J. Burns." [*Applause*]

THE SPEAKER: This will be referred to the Reference Committee on Resolutions.

XII—8. RE DISTRIBUTION OF INFLUENZA VACCINE

J. R. RODGER, M.D.:

"Whereas, in the current Asiatic flu vaccination program it has been the policy of the United States Post Office Department to notify all postmasters that they may order vaccination material for the employes in their offices directly from the manufacturer without prescription, and

"Whereas, such a policy places upon the manufacturer the responsibility of determining a priority in a period of scarcity rather than by having such a priority determined by the health personnel of each community, and

"Whereas, there are other groups in the Public Health Service's priority list for Asiatic flu vaccinations who are just as essential or more so to the health and other basic community services than are postal employes; therefore, be it

"RESOLVED: That this House of Delegates instruct the Michigan delegation to the American Medical Association to present a resolution pointing out the unfairness to other groups of the Post Office Department procedure; and that such a resolution be sent by the AMA to the U. S. Public Health Service and other appropriate governmental bodies in order to prevent a recurrence of such an unfair procedure in the event of a future similar medical emergency."

THE SPEAKER: This will be referred to the Reference Committee on Hygiene and Public Health.

XII—9. RE REFERRAL TO AMA OF HEALING ARTS PROBLEM

J. R. RODGER, M.D.:

"Whereas, the problems of the relationship of doctors of medicine to doctors of osteopathy cannot adequately be settled on a State level until there has been a solution reached on a national level, and

"Whereas, a state medical society should not adopt a course of action at variance with the Code of Ethics of the American Medical Association; therefore, be it

"RESOLVED: That the Michigan State Medical Society should not at this time adopt a course of action in relation to the problem of osteopathy which is at variance with the current position of the AMA on this matter; and be it furthermore

"RESOLVED: That this House of Delegates instruct the Michigan delegation to the AMA to introduce a resolution calling for a reconsideration of the osteopathic problem, such resolution to be introduced at the discretion of the Michigan delegation, but not later than the June 1960 session of the AMA."

THE SPEAKER: This will be referred to the Reference Committee on Resolutions.

XII—10. RE MERGER BLUE SHIELD AND BLUE CROSS

R. F. FENTON, M.D. [Wayne]:

"Whereas, the public in general fails to distinguish between Blue Cross and Blue Shield, and

"Whereas, many mutual problems exist involving Blue Cross and Blue Shield, and

"Whereas, both the public and the members of the medical profession are confused as to the various problems of the Blue Cross and the Blue Shield; be it

"RESOLVED: That this House of Delegates go on record as favoring a merger of the Michigan Medical Service and the Michigan Hospital Service."

THE SPEAKER: This will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XII—11. RE PROPOSED CHANGES IN BYLAWS OF MICHIGAN STATE MEDICAL SOCIETY

(Chap. 6—Discipline of Members)

SIDNEY ADLER, M.D. [Wayne]:

"Whereas, at the 1956 session of the House of Delegates of the Michigan State Medical Society certain changes to Chapter 6 of the Bylaws, entitled 'Conduct and Discipline of Members' were proposed, and

"Whereas, the constituent county societies should be allowed local autonomy in matters dealt with in these proposals, and

"Whereas, rules set down in detail may not apply equally well to all county societies, and

"Whereas, the ends of justice are fully met if procedures in disciplinary actions are fair; therefore, be it

"RESOLVED: That the proposed changes to 'Conduct and Discipline of Members' be not approved except for those sections outlining appeal procedures; and be it further

"RESOLVED: That the following amendments be made to Chapter 6 of the present bylaws of the Michigan State Medical Society:

"Section 1: Add the following words: 'These provisions conform to Article XIII, Section 75 of Robert's Rules of Order': 'A component county society may expel, suspend or otherwise discipline any of its members in accordance with the provisions of its constitution and bylaws; provided, however, these provisions conform to Article XIII, Section 75 of Robert's Rules of Order with the exception of the following restriction: "After charges are preferred against a member, and the assembly has ordered that he be cited to appear for trial, he is theoretically under arrest and is deprived of all rights of membership until his case is disposed of."'

"Section 2. Retain as is: 'Efforts at conciliation and adjustment of differences shall precede formal complaint against a member sought to be disciplined.'

"Sections 3, 4, 5, 6, 7, 8, 9 (these sections outline procedures that county societies must now follow in disciplining members): Delete.

"Sections 10, 11, 12: Substitute Sections 13, 14, 15, 16, 17, 18 from the Proposed Amendments on Conduct and Discipline of Members."

THE SPEAKER: This will be referred to the Reference Committee on Constitution and Bylaws.

XII—12. RE THE EXPANSION OF MEDICAL SCHOOL FACILITIES

MILTON A. DARLING, M.D. [Wayne]:

"Whereas, the graduates of the medical schools in Michigan are insufficient in number to meet the needs of our State for increased medical services, and

"Whereas, with our expanding population and economy this shortage will become increasingly acute, and

"Whereas, the period of years (at least five) between any increase in medical school enrollments and the availability of additional physicians makes action now quite imperative, and

"Whereas, the most economical and immediately available means of adding to the number of medical students can be achieved by increasing the funds available to the College of Medicine of Wayne State University in the amount needed to provide the necessary personnel for fifty additional students in the entering class for September, 1958, and

"Whereas, there is no lack of fully qualified applicants for such an expanded enrollment; now, therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society respectfully urges the Governor and the Legislature to give immediate consideration to this problem and the solution as hereinbefore suggested; and be it further

"RESOLVED: That the House of Delegates offer the services of its members in a continuing study of the requirements and the facilities for medical education."

THE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XII—13. CREATION OF STUDY COMMITTEE RE PRACTICE PRIVILEGES IN PUBLIC HOSPITALS

H. A. FURLONG, M.D. [Oakland]: This resolution is introduced at the request of the Oakland County Medical Society.

"Whereas, the right of public hospitals to formulate rules and regulations for the control of medical practice within the hospital has been challenged by litigation, and

"Whereas, it is in the interest of public health and welfare that hospitals formulate such rules and regulations for the control of medical practice within public hospitals in order to maintain standards of hospital approval for accreditation and postgraduate training; therefore, be it

"RESOLVED: That the Oakland County Medical Society requests the Michigan State Medical Society to appoint a study committee if it is deemed timely and advisable. The duty of the committee would be to prepare an amendment to the Medical Practice Act of Michigan which will establish the right of public hospitals to control medical practice within the hospital."

THE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XII—14. RE STUDY OF RELATIVE VALUE SCHEDULE OF SERVICE

H. W. HARRIS, M.D. [Ingham]: This resolution is designed to implement in part the recommendations of The Council regarding prepaid medical service.

"Whereas, a "fee for services rendered" is the most usual method of reimbursement to members of the medical profession, and

"Whereas, there are disagreements among various members and groups within the profession as to the equity of various 'fees for services,' and

"Whereas, a third party can never settle this problem to the satisfaction of the members of the profession nor for individuals seeking such services; therefore, be it

"RESOLVED: That the Permanent Advisory Committee on Fees, a Committee of the House of Delegates, be entrusted with the duty of investigating the Relative Value Schedule of Services as developed by the California State Medical Society with a view to a similar program for the Michigan State Medical Society; and be it further

"RESOLVED: That this Committee be authorized to conduct such hearings as are necessary to obtain information, appoint those individuals or groups it deems advisable as agents for securing information and the drafting of such a schedule of relative value of services; and be it further

"RESOLVED: That those expenses necessary for the satisfactory completion of this task, including meetings, secretarial work and the employment of trained analysts, if need be, shall be borne by the Michigan State Medical Society; and be it further

"RESOLVED: That this work proceed at once and that a preliminary report be ready by the time of the January meeting of The Council, at which time The Council shall recommend further disposition."

THE SPEAKER: This will be referred to the Reference Committee on Reports of The Council.

XII—15. RE CREATION OF NATIONAL OR STATE CLEARING COMMITTEE TO INVESTIGATE NEW DRUG CLAIMS

P. S. SLOAN, M.D. [Houghton]:

"Whereas, all practicing doctors of medicine are being bombarded with literature, testimonials, caricatures, claims of new cures, and useless samples, and

"Whereas, the volume of this material is such that nearly all goes unnoticed and discarded, and only further adds to the present confusion relative to new pharmaceutical products, and

"Whereas, the expense of such advertising is millions of dollars per year, which could be used much more advantageously in medical care and research, and

"Whereas, a national or State clearing committee could be established to investigate new drug claims, and forward to physicians a descriptive card of potentially beneficial drugs, and

"Whereas, the St. Louis County Medical Society of Duluth, Minnesota, a component member of the Minnesota State Medical Society, has made rapid strides toward such a goal; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society go on record as being unanimously in favor of such action; and be it further

"RESOLVED: That a committee be appointed from the membership of the Michigan State Medical Society to contact R. O. Bergan, M.D., Duluth, Minnesota, Secretary of the St. Louis County Medical Society, of this action, and to work further with that Society toward the ultimate goal. Also that said committee report to the Michigan State Medical Society membership through the medium of the JOURNAL, periodically as to the progress being made."

THE SPEAKER: This resolution will be referred to the Reference Committee on Miscellaneous Business.

XII—16. RE REPRESENTATION ON MMS BOARD

D. A. BOWMAN, M.D. [Bay-Arenac-Iosco]: This resolution was approved by the Bay-Arenac-Iosco County Medical Society in June, 1957:

"Whereas, the Michigan Medical Service is a corporation established and operated by the medical profession of Michigan, and

"Whereas, the Michigan Medical Service has been first to pay for services rendered by others than the medical profession, and

"Whereas, there is no moral, legal or political reason for permitting any other groups to enter into the administration and policy making of the Michigan Medical Service; now, therefore, be it

"RESOLVED: That no other groups, professions or representatives of cult shall be appointed or elected to the Board of Directors of Michigan Medical Service either as representatives of the other groups or as public representatives."

THE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations, with emphasis on the "Public Relations."

XII—17. RE SECTION REPRESENTATION IN MSMS HOUSE OF DELEGATES (Constitution Article VII)

H. F. FALLS, M.D. [Washtenaw]:

"Whereas, the increasing burden of economic and sociologic problems requires the studied judgment of the profession as a whole, and

"Whereas, the present machinery of the Michigan State Medical Society makes it difficult for the specialty groups to voice their opinions; therefore, be it

"RESOLVED: That each specialty section of the Michigan State Medical Society be invited to elect one delegate to the MSMS House of Delegates."

This was referred to the Reference Committee on Constitution and Bylaws.

XII—18. RE INCLUSION OF M.D.s UNDER SOCIAL SECURITY

V. M. ZERBI, M.D. [Washtenaw]:

This resolution is being presented upon instruction of the Washtenaw County Medical Society by a majority vote:

"Whereas, the Washtenaw County Medical Society by majority vote favors the compulsory inclusion of physicians in Social Security, and

"Whereas, the history of the past twenty years indicates that Social Security is here to stay, and

"Whereas, physicians pay the Social Security tax whenever they buy goods or services, but have no prospect of recovery, and

"Whereas, over 50 per cent of physicians are now covered by Social Security; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society declare itself in favor of the compulsory inclusion of physicians in Social Security; and be it further

"RESOLVED: That the delegates to the AMA be instructed to institute similar action in the House of Delegates of the AMA."

THE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XII—19. RE SEPARATION OF BLUE CROSS AND BLUE SHIELD

E. H. FENTON, M.D. [Wayne]:

"Whereas, Blue Shield is being blamed for the increased cost of hospitalization, and

"Whereas, the public will be best served by demarcation of respective fields of Blue Cross and Blue Shield, and

"Whereas, no necessity exists in fact for the association of the two organizations, and

"Whereas, there is an increased feeling among physicians that such association also is not in the interest of the medical profession; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society go on record as favoring the dissolution of the working arrangement between the two organizations."

THE SPEAKER: This will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XII—20. RE TRAINING AMBULANCE DRIVERS

A. C. STANDER, M.D. [Saginaw]:

"Whereas, incompetent or careless handling of the injured may produce further injury and jeopardize life, and

"Whereas, the speeding ambulance may lead to further jostling and injury to unsplinted fractures as well as the double jeopardy of further accidental injury, and

"Whereas, this condition can be remedied by adequate first-aid training of ambulance personnel, and

"Whereas, with trained personnel the need for breakneck speed will be less urgent; therefore, be it

"RESOLVED: That the Michigan State Medical Society House of Delegates go on record in favor of some type of regulation of ambulance personnel requiring first-aid training and certification, and also some rules for judicious use of excessive speeds and siren sounds by ambulances; and be it further

"RESOLVED: That a copy of this resolution be sent to those individuals, organizations and authorities as felt advisable by The Council of the Michigan State Medical Society."

THE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XII—32. RE PRINCIPLES OF A COMPREHENSIVE MEDICAL SERVICE PLAN

G. H. BAUER, M.D. [Washtenaw]:

The delegation from Washtenaw County has been instructed to submit the following resolution:

"Whereas, there has been an increasing demand for more comprehensive prepayment medical service and an apparent willingness of the public to pay the necessarily higher premium for this service, and

"Whereas, it is in the public interest that physicians maintain their key role in any prepayment plan for the provision of these services; therefore, be it

"RESOLVED: That the Washtenaw County Medical Society recommends to the Michigan State Medical Society that Michigan Blue Cross-Blue Shield develop a comprehensive plan embodying the following principles:

"(1) Outpatient diagnostic and surgical services including laboratory and x-ray.

"(2) Consultation service in the recognized specialties on both outpatient and inpatient basis.

"(3) Unlimited radiologic and laboratory services.

"(4) Coverage of 50 per cent inpatient and outpatient psychiatric care outside governmental facilities.

"(5) A qualified surgical assistant shall be paid a fee.

"(6) Michigan Medical Service fees paid in full only to participating physicians, non-participating physicians to receive 90 per cent of usual fees.

"(7) Acceptance of one equitable fee for service regardless of subscriber's income. Collection by Michigan Medical Service of subscriber's premiums on basis of income of subscriber.

"(8) That the principle of the inclusion of deductible features in this comprehensive plan be considered."

THE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XIII. REPORT OF PERMANENT ADVISORY COMMITTEE ON FEES

By Grover C. Penberthy, M.D.

Before presenting our report, the Committee wishes to read the resolution that was presented by Dr. Fenton of Wayne County last year and approved by the 1956 House of Delegates.

"Whereas, inequities exist in professional fee schedules, and

"Whereas, the monetary value of medical and surgical procedures fluctuates, and

"Whereas, it is impractical to remedy these inequities without considerable study, and

"Whereas, certain dissatisfactions within the profession will be minimized by a continuing consideration of these fee schedules, and

"Whereas, the temporary committee has inadequate time to consider the problem; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society establish a Permanent Advisory Committee on Fees."

Now I shall present the report of the Permanent Advisory Committee on Fees:

This Committee held one meeting during the year. This was devoted to a consideration of those areas to which the Committee should give consideration.

It was felt that this Committee was not charged with the responsibility of developing fee schedules, but rather to review the whole subject of medical fees and to render advice to those groups specifically charged with the setting up of fees for various categories.

The Committee established the following areas for its consideration:

(1) Historical reference to happenings in the past several decades.

(2) The need for maintenance of professional independence on a fee-for-service basis.

(3) The requisite of giving conscientious, fair and honest service to patients.

(4) That, based on our changing economy, constant studies be made of the fee situation in this State, comparable to other states.

(5) That to implement these studies it might be necessary to invoke the services of a full-time professional analyst.

(6) That this Committee welcomes at all times suggestions and advice in order to make information available to the profession on a permanent basis.

Respectfully submitted,

G. C. Penberthy, M.D., *Chairman*
J. S. Beer, M.D. M. A. Darling, M.D.
H F. Falls, M.D. W. M. LeFevre, M.D.
M. L. Lichter, M.D.

The Speaker: This report will be submitted to the Reference Committee on Reports of Special Committees.

XIV. REPORTS OF STANDING COMMITTEES

XIV—1. POSTGRADUATE MEDICAL EDUCATION

XIV 2.—PREVENTIVE MEDICINE

XIV—3. PUBLIC RELATIONS

XIV—4. ETHICS

XIV—5. LEGISLATIVE

On page 119 of the Handbook you will find the beginning of the reports of the standing committees. I think it would be much easier for you to read those reports at your leisure rather than have all of them read. Unless I hear a dissenting voice, we will proceed along that line.

I would like to ask at this time whether there are any supplemental reports from any of these committees under A, B, C, D and E of the reports of standing committees. Are there any supplemental reports from those committees? If not, all of these reports will be referred to the Reference Committee on Standing Committees.

XV. REPORTS OF SPECIAL COMMITTEES

The Speaker: We shall proceed to Annual Reports of MSMS Special Committees. These reports also are in the Handbook.

XV—1. BEAUMONT

XV—2. SCIENTIFIC RADIO

XV—3. ADVISORY TO WOMAN'S AUXILIARY

XV—4. ADVISORY TO MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

These reports will be referred to the Reference Committee on Reports of Special Committees.

The meeting was recessed at 4 p.m.

MONDAY EVENING SESSION

September 23, 1957

The meeting reconvened at 8:20 p.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

XII—21. (Motion) TO APPOINT PARLIAMENTARIAN

W. S. Reveno, M.D. [Wayne]:

I would like to introduce a motion to empower the Speaker of the House of Delegates to appoint a Parliamentarian to sit with him during this 1957 session and to resolve any parliamentary problems that may come up.

I so move.

Charles Sellers, M.D. [Wayne]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

The Speaker: The Speaker will appoint the Vice Speaker as Parliamentarian; during the time the Vice Speaker is in the Chair, Dr. Bailey of Wayne will be the Parliamentarian.

XII—22. RE THE COLLECTION OF DUES

C. L. Candler, M.D. [Wayne]:

"Whereas, in 1956 the House of Delegates authorized the Michigan State Medical Society to assume the responsibility for membership billing, and

"Whereas, the purpose of the new collection procedure was to handle more expeditiously dues collection and to provide a service to the constituent societies, and

"Whereas, these objectives have been reached in many county medical societies that do not maintain an executive office, and

"Whereas, this billing service has not been helpful in Wayne County but has resulted in innumerable complaints from the membership, a marked decrease in collection, and in additional clerical work; therefore, be it

"RESOLVED: That each county medical society be permitted to decide whether it wishes to avail itself of this billing service of the Michigan State Medical Society; and be it further

"RESOLVED: That county societies who elect to do their own billing be granted the 1 per cent collection fee."

Mr. Speaker, I move the adoption of this resolution.

This was referred to the Reference Committee on Resolutions.

XII—23. RE ANNUAL REGISTRATION OF M.D.'S

L. A. Drolett, M.D. [Ingham]:

"Whereas, the bulk of the revenue which the Legislature appropriates to the Board of Registration in Medicine is derived from the original ($50 plus) license fees collected from new doctors entering practice, and

"Whereas, it is evident that some new sources of operating revenue must be found for the Board if it is to properly serve the profession and the people of this State; therefore, be it

"RESOLVED: That this House of Delegates respectfully request the Board of Registration in Medicine and appropriate Legislators to review with The Council or its Executive Committee the existing and projected programs and fiscal policies of the Board to enable The Council to recommend changes in the Medical Practice Act which will effect some relief to the new MD's and provide adequate funds for the Board's duties; and be it further

"RESOLVED: That if such legislative changes must necessarily embody a form of annual registration of MD's, that this House of Delegates endorses a fee of $5."

Because this was a part of the report of The Council, I shall refer it to the Reference Committee on Reports of The Council.

XVI. REPORTS OF REFERENCE COMMITTEES

XVI—1. ON OFFICERS REPORTS

CHARLES SELLERS, M.D.:

XVI—1(a) *Report on the President's Address.*—The Reference Committee approved the address of President with great thanks. The House concurred.

XVI—1(b) *Report on President-elects' Address.*—The address of the President-elect, George Slagle, M.D., was approved with high thanks. The House concurred.

XVI—1(c) *On the Report of the Delegates to the American Medical Association.*—The report of the delegates to the AMA was approved and the House concurred.

XVI—1(d) *On the Report of the Woman's Auxiliary.*—The Reference Committee approved the report of the Woman's Auxiliary. The House concurred.

XVI—1(e) *On the Report of the Michigan State Medical Assistants' Society*—The Reference Committee approved the report of the Michigan State Medical Assistants' Society. The House concurred.

XVI—2. ON REPORTS OF STANDING COMMITTEES

E. H. FENTON, M.D.: The Reference Committee on Reports of Standing Committees approved all these reports.

[*The motion was put to a vote and was carried unanimously.*]

XVI—3. ON REPORTS OF THE REFERENCE COMMITTEE ON REPORTS OF SPECIAL COMMITTEES

L. J. BAILEY, M.D. [Wayne]:

The Reference Committee on Special Committees approved the reports from the *Beaumont Memorial Committee,* the *Scientific Radio Committee,* the *Advisory Committee to the Woman's Auxiliary,* and the *Advisory Committee to the Michigan State Medical Assistants' Society,* as printed in the Handbook, pages 147 to 153 inclusive.

XVI—4. ON REFERENCE COMMITTEE ON CONSTITUTION AND BYLAWS

E. S. PARMENTER, M.D. [*Alpena-Alcona-Presque Isle*]: A resolution was presented by Dr. Falls of Washtenaw County. This resolution was approved for constitutional amendment and a change in the Bylaws.

XVI—4(a). RESOLUTION RE SECTION REPRESENTATION IN MSMS HOUSE OF DELEGATES

(Const. Art. VII Bylaws, Chap. 8, Sec. 1)

We propose the following amendment to the Constitution:

Article VII—House of Delegates—Section 1 should read: "The House of Delegates shall be the legislative body of the Michigan State Medical Society and shall consist of delegates elected by component county medical societies, by the members of the authorized specialty sections and delegates-at-large, as prescribed by the Bylaws."

The addition to the Bylaws is as follows: Chapter 8—House of Delegates—Section 1 (Composition): "The House of Delegates shall be composed of members elected by the component county societies and members of the authorized specialty sections."

The change in the Bylaws will have to lie over until tomorrow, and the constitutional amendment will have to be tabled for one year.

I move the adoption of the Reference Committee's report.

THE SPEAKER: The action of the Reference Committee is to bring up tomorrow, at the next meeting, a change in the Bylaws, and one year for a change in the Constitution. In approving this Reference Committee's report, all you are doing is setting it over for further action. [*Motion was seconded and carried.*]

XVI—4(b). RESOLUTION RE REGULATION OF MEMBERSHIP

(Bylaws Chap. 2, Sec. 1)

E. S. PARMENTER, M.D.: The resolution presented by Dr. E. H. Fenton of Wayne County was disapproved. This resolution asked for a change in the Bylaws. It was disapproved because it is believed to be adequately covered in other changes in the Bylaws which will be presented.

XVI—4(c). RE DISCIPLINE OF MEMBERS

(Bylaws Chap. 6)

A resolution presented by Dr. C. D. Adler, of Wayne County, was also disapproved because it likewise is adequately covered in extensive proposed changes in the Bylaws to be considered.

XVI—4(d). BYLAWS AMENDMENTS TO MEDIATION—ETHICS—GRIEVANCE

E. S. PARMENTER, M.D.: The members of the Reference Committee on Constitution and Bylaws considered a long report submitted to The Council and directly to the members of the House of Delegates. This Committee, headed by Dr. R. J. Hubbell, has worked during the past year on revisions covering Chapters 6 and 7 of the Michigan State Medical Society Bylaws. These Bylaws were printed and sent to all county societies for comment. Only two offered suggested changes which have been incorporated into this report.

The proposed changes as approved by the Reference Committee on Constitution and Bylaws were presented in detail.

SUGGESTED ADDITIONS TO BYLAWS RELATIVE GRIEVANCE COMPLAINTS FROM THE PUBLIC

Chapter 7 Re Grievances of Non-Members Mediation Committees

Section 1, 2, 3, 4, were approved as printed.

At the end of Section 1, add: (f) Committee on Mediation (approved).

Section 7, approved.

MISCELLANEOUS CHANGES IN BYLAWS SUGGESTED

Delete from Chapter 2, Sections 6 and 7. Deletion approved.

Section 1, approved.

Delete from Chapter 10, Section 5, the last sentence (approved).

Proposed Chapter 6—Conduct and Discipline of Members

Section 1, 2, approved; also 3, 4, approved as printed.

Section 5, (deletion of last sentence approved).

Sections 6, 7, 8, approved.

Section 9. Deletion of "and may be represented by counsel" and take out "or by counsel for the component county society.", and add in its place "of the component county society."

Section 10, approved.
Section 11, approved.
Section 12, approved.
Section 13, approved.
Section 14, approved.
Section 15, approved.
Section 16, approved.
Section 17, approved.
Section 18, approved.

J. E. LIVESAY, M.D. [Genesee]: I would like to move that this constitutes a formal presentation of this matter to the House of Delegates.

[*The motion was severally seconded and carried.*]

XII—24. CONSTITUTION ART. X—SECS. 1-2-3. TO MAKE VICE SPEAKER A VOTING MEMBER OF THE COUNCIL AND EXECUTIVE COMMITTEE

The Chair believes this is the proper time to bring up a matter that was presented to the Constitution and Bylaws Committee last year in regard to the Vice Speaker being a voting member of The Council and the Executive Committee. Therefore, with your permission I will read this proposed change, and then it will be your privilege to do with it as you see fit.

"Whereas, the Vice Speaker of the House of Delegates of the Michigan State Medical Society is presently a member of The Council and the Executive Committee but without power to vote, and

"Whereas, The Council, desiring broader representation of the House of Delegates on the Executive Committee, has recommended that the Vice Speaker be given full membership on The Council and the Executive Committee; therefore, be it

"RESOLVED: That the House of Delegates takes action to amend the Constitution and Bylaws to make the Vice Speaker of the House of Delegates a member of The Council and the Executive Committee by amending Section 1, Article X of the Constitution by inserting the words 'and Vice Speaker' after the word 'Speaker'; by amending Section 2, Article X of the Constitution by striking out the words preceding the word 'Speaker' and inserting after the word 'Speaker' the words 'and Vice Speaker'; by deleting Section 3 of Article X of the Constitution and by amending Section 1 of Chapter 9 of the Bylaws by inserting the words 'and Vice Speaker' after the word 'Speaker.'"

W. W. Babcock, M.D.: I so move.

H. A. Furlong, M.D: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

[*The Vice Speaker assumed the Chair.*]

XVI—5. ON REPORT ON RESOLUTIONS

J. M. Wellman, M.D. [Ingham]:

XVI—5(a) *Annual Report of Healing Arts Study Committee.*—The Reference Committee considered the annual report of the Healing Arts Study Committee of 1956-57 and resolution introduced by Dr. John Rodger, Northern Michigan Medical Society, both of these matters relating to the osteopathic problem.

The specific recommendations in the annual report of the Healing Arts Study Committee will be discussed separately. *The first recommendation* is:

(1) "That the Michigan State Medical Society approve medical schools of the University of Michigan and Wayne State University giving courses to osteopaths."

The Reference Committee points out that this is a definite contradiction to the action taken by the AMA in considering the Cline report. Your Reference Committee recommends unanimously that this above recommendation be disapproved.

Before we proceed with these recommendations I would like to read the final paragraph of that report: "The Committee noted with interest the MSMS policy and relationship to other healing arts professions, e.g., chiropodists, optometrists, physical therapists, etc. It did not choose to comment on these on the basis that the situation seems generally well in hand."

Mr. Speaker, I move that the above recommendation of the Healing Arts Study Committee be disapproved.

E. C. Long, M.D.: I second the motion.

After full discussion the recommendation of the reference committee on Item I was tabled.

Speaker Lightbody: *The motion is tabled.*

The Chairman of this Reference Committee will proceed with the second recommendation.

J. M. Wellman, M.D.: *The second recommendation* of the Healing Arts Study Committee is as follows:

"That the Michigan State Medical Society delegates to the AMA House of Delegates be instructed to submit a resolution to the AMA House of Delegates at that body's next session, requesting the referral of the problem of MD's-DO's relationship to the individual constituent state medical societies for action by their individual houses of delegates, and that actions, subsequently taken on this question by these houses, be considered ethical in relation to the AMA Principles of Ethics."

Your Reference Committee recommends unanimously that this above recommendation No. 2 be approved, and I so move.

[*The motion was severally seconded, put to a vote and carried unanimously.*]

J. M. Wellman, M.D.: *The third recommendation* of the Healing Arts Study Committee is as follows:

"That the Michigan State Medical Society approve consultation between MD's and DO's if and when approved by the American Medical Association."

The present Code of Ethics of the AMA does not permit such consultation. Your Reference Committee did not wish to take any action in this regard predicated upon a change in the present Code of Ethics. Your Reference Committee recommends unanimously that this recommendation be disapproved, and I so move.

S. L. Loupee, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

J. M. Wellman, M.D.: *The fourth recommendation* of the Healing Arts Study Committee is as follows:

"That the Michigan State Medical Society agree to having its Legislative Committee meet (annually) when necessary with the like Committee of the Michigan Association of Osteopathic Physicians to attempt to iron out any mutual legislative problems."

Your Reference Committee recommends unanimously that this recommendation be approved, and I so move.

L. A. Drolett, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—5(b) REFERRAL OF HEALING ARTS PROBLEM TO AMERICAN MEDICAL ASSOCIATION

Chairman Lightbody: We have another resolution here on a subject that sounds like what we just discussed, but I think we would like to have it projected on the screen so we can all see it. Dr. Wellman says he will read it.

J. M. Wellman, M.D.: Resolution No. 9, presented by John R. Rodger, M.D., Northern Michigan Medical Society, is as follows:

[*Dr. Wellman read resolution No. 9.*]

J. M. Wellman, M.D. [*continuing*]: Your Reference Committee considered this and unanimously recommends approval in its original form.

W. S. Jones, M.D. [Menominee]: I second that.

[*The motion was put to a vote and was carried unanimously.*]

XVI—6 ON SPECIAL MEMBERSHIPS

W. L. Brosius, M.D.: Your Reference Committee on Special Memberships wishes to present a partial report, approving memberships as follows. We would like to take these up by class of membership, and vote on them separately.

For *Honorary Membership:* Mr. William J. Burns.

Your Reference Committee recommends adoption of this resolution.

W. S. Reveno, M.D.: I support it.

[*The motion was put to a vote and was carried unanimously.*] [*Applause*]

W. L. Brosius, M.D.: The following names were presented for *Life Membership:*

Allegan County.—H. H. Johnson, M.D., Wayland.

Berrien County.—Edward A. Miller, M.D., Berrien Springs.

Gogebic County.—Charles E. Stevens, M.D., Ironwood.

Ingham County.—J. Earl McIntyre, M.D., Lansing.

Ionia-Montcalm County.—Earl P. Bunce, M.D., Trufant; Oscar P. Geib, M.D., Carson City; Alfred E. Hollard, M.D., Belding; Perry C. Robertson, M.D. Ionia.

Kent County.—Earle J. Byers, M.D., Grand Rapids; Ernest W. Dales, M.D., Grand Rapids; Alfred Dean, M.D., Sagola; John Ver Meulen, M.D., Grand Rapids; William R. Vis, M.D., Grand Rapids.

Lenawee County.—W. B. Hornsby, M.D., Clinton; Philip P. Sayre, M.D., Onsted; Chad A. Van Dusen, M.D., Blissfield.

Saginaw County.—Alexander R. McKinney, M.D., Saginaw; John T. Sample, M.D., Saginaw.

Washtenaw County.—Frederick A. Coller, M.D., Ann Arbor; Emory W. Sink, M.D., Ann Arbor.

St. Clair County.—George Van Rhee, M.D., Port Huron.

Wayne County.—Effie E. Arnold, M.D., Detroit; T. H. Edward Best, M.D., Detroit; F. W. Bramigk, M.D., Detroit; Philip H. Broudo, M.D., Detroit; Duncan Campbell, M.D., Detroit; William J. Cassidy, M.D., Detroit; Aaron L. Chapman, M.D., Detroit; Don A. Cohoe, M.D., Highland Park; Ray S. Dixon, M.D., Detroit; Clair L. Douglas, M.D., Detroit; Edward F. Dowdle, M.D., Detroit; Clarence H. Eisman, M.D., Detroit; Ray L. Fellers, M.D., Detroit; William Gramley, M.D., Detroit; Charles W. Husband, M.D., Detroit; Zeno L. Kaminski, M.D., Detroit; Charles S. Kennedy, M.D., Detroit; Hugh A. McFadyen, M.D., Detroit; Harriet E. McLane, M.D., Detroit; Edward J. O'Brien, M.D., Detroit; Jacob R. Rupp, M.D., Detroit; Rene J. St. Louis, M.D., Detroit; Stelios N. Sakorraphos, M.D., Detroit; Simon H. Sauter, M.D., Detroit; Jesse G. Slaugenhaupt, M.D., Detroit; Elisha J. Tamblyn, M.D., Detroit; Delma F. Thomas, M.D., Detroit.

Your Reference Committee recommends the transfer of these members to Life membership. I so move.

Charles Sellers, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

W. L. Brosius, M.D.: For *Retired Membership:*

Oakland County.—Burton M. Mitchell, M.D., Pontiac.

Wayne County.—Roland M. Athay, M.D., Carl C. Birkelo, M.D., Harry G. Clark, M.D., Floyd B. Knapp, M.D., Arlington Lecklider, M.D., Walter H. Squires, M.D., Hugh Stalker, M.D., Henry B. Steinbach, M.D., Cleary N. Swanson, M.D., William A. Thompson, M.D., all of Detroit.

The Reference Committee recommends the transfer of these members to Retired membership, and I so move.

Charles Sellers, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

W. L. Brosius, M.D.: For *Associate Membership:*

Alpena County.—Jerry Miller, M.D., Hillman.

Chippewa County.—LeRoy A. Futterer, M.D., Mackinac Island.

Hillsdale County.—William O. Michel, M.D., Ann Arbor.

Gratiot County.—LeRoy F. Von Lackum, M.D., Alma.

Oakland County.—Juliette Seelye Karow, M.D., Royal Oak.

Washtenaw County.—John N. Bicknell, M.D., George E. Block, M.D., Fred G. Blum, Jr., M.D., Philip D. Brooks, M.D., Donald C. Bullington, M.D., Charles W. Butler, Jr., M.D., C. William Castor, Jr., M.D., William A. Challener, III, M.D., George W. Cheek, Jr., M.D., Alton J. Coppridge, M.D., William M. Cutler, M.D., James H. Geist, M.D., Robert I. Goldsmith, M.D., Carol E. Goodman, M.D., Frank H. Goodrich, M.D., Donald J. Holmes, M.D., Albert S. Jacknow, M.D., Robert S. Jampel, M.D., Edmund M. Krigbaum, M.D., Graydon A. Long, M.D., John C. Nixon, M.D., Gerald A. O'Connor, M.D., Alden R. Parker, M.D., Prasanna K. Pati, M.D., Gus A. Raney, M.D., Melvin J. Reinhart, M.D., F. Dale Roth, M.D., Arthur S. Shufro, M.D., Carlson R. Speck, M.D., Donald Y. Stewart, M.D., Thomas P. Stratford, M.D., Emanuel Tanay, M.D., Ralph W. Theobald, M.D., Robert L. Timmons, M.D., John B. Tisserand, Jr., M.D., John S. Tytus, M.D., John D. Werley, M.D., Donald K. Williams M.D., James H. Winkler, M.D., James A. Wood, M.D., William S. Wilson, M.D.

Wayne County.—Donald R. Brock, M.D., Paul Dzul, M.D., David French, M.D., Eugene P. Frenkel, M.D., Alex Gaynor, M.D., Frank L. Hoagland, M.D., L. W. Hull, M.D., William V. Kyle, M.D., Charles West, M.D., John D. McKinnon, M.D., Donald R. Nielson, M.D., Melvin K. Pastorius, M.D., all of Detroit.

* * *

Report of the Reference Committee was approved.

XVI—7. ON LEGISLATION AND PUBLIC RELATIONS

W. S. Reveno, M.D.: Your Reference Committee on Legislation and Public Relations had five resolutions submitted to it for consideration. The first of these had to do with the expansion of Wayne State University Medical School.

[*Dr. Reveno read resolution No. 12.*]

XVI—1(a). EXPANSION OF MEDICAL SCHOOL FACILITIES

The Reference Committee noted that a similar resolution was considered a year ago, and there is a comment on it on pages 89 and 90 of the Handbook. May I read that to you also? This refers to a resolution regarding expansion of medical school facilities at Wayne State University.

"Letters have been written to the Governor, the Lieutenant Governor (as presiding officer of the Senate) and the Speaker of the House of Representatives, urging accomplishment of this resolution. A proposal to add to the budget of Wayne State University the sum of $285,650 for expansion of teaching personnel to provide for fifty extra medical students was introduced, but not adopted by the Legislature."

It seemed to the Reference Committee that the resolution offered at this time is an effort to reintroduce similar action in the Legislature and accordingly this resolution was approved by the Reference Committee.

I therefore move the adoption of this resolution.

C. L. Weston, M.D. [Shiawassee]: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—7(b). CREATION OF STUDY COMMITTEE ON PRACTICE PRIVILEGES IN PUBLIC HOSPITALS

W. S. Reveno, M.D.: The Reference Committee, after due discussion, felt that it was entirely out of order to bring the Medical Practice Act into this situation, and after discussion with Dr. Furlong the Reference Committee reformulated this resolution, particularly the last paragraph, which I shall read to you:

"RESOLVED: That the Oakland County Medical Society requests The Council of the Michigan State Medical Society to prepare legislation that will establish the right of public hospitals to control medical practice within their institution."

The Reference Committee approved this resolution as reworded, and I move its adoption as amended.

J. A. Witter, M.D. [Wayne]: I second the motion.

The substitute resolution was carried.

The Speaker: You are speaking against adoption

of the rephrased resolution as well as the original resolution.

XVI—7(c). RE REPRESENTATION ON MMS BOARD

[*Dr. Reveno read resolution No. 16.*]

W. S. Reveno, M.D.: The Reference Committee disapproved this resolution for the following reasons:

(1) It does not constitute good public relations to go on record as opposing the groups referred to.

(2) A nominee would in the present circumstances probably have small chance of election.

(3) The resolution is out of line with the statute establishing Michigan Medical Service.

The Reference Committee therefore recommends disapproval of this resolution, and I so move.

C. L. Weston, M.D.: I second the motion.

O. J. Johnson, M.D.: I question the opinion of the Reference Committee on the Medical Practice Act that he has mentioned, that is, the enabling Act. Perusal of that Act does not show anything that would make such action contrary. However, I do feel that your statements that it would be poor public relations and probably the nominee would not get by this body, are correct. I don't think it would be illegal, however.

[*The motion to disapprove was put to a vote and was carried unanimously.*]

XVI—7(d). INCLUSION OF MD'S UNDER SOCIAL SECURITY

W. S. Reveno, M.D.: The next resolution was submitted by Washtenaw County Medical Society.

Your Reference Committee disapproves this resolution principally because extension of social benefits leads to wider socialization. The immorality of the entire Social Security Act was emphasized in the discussion; and while by objecting to social security we are penalized by greater taxes and are denied certain questionable benefits, we are rendering a service as a minority in opposition.

The Reference Committee unanimously DISAPPROVED this resolution. I move adoption of the Reference Committee's recommendation.

XVI—7(e). TRAINING OF AMBULANCE DRIVERS

W. S. Reveno, M.D.: The last resolution considered was one that has to do with first-aid training for ambulance drivers and regulation of ambulance speed and sound. I shall read the "Resolved" portion.

Your Reference Committee approved this resolution and recommends its adoption. I so move.

C. L. Weston, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

[*The meeting adjourned at 11:30 p. m.*]

TUESDAY MORNING SESSION
September 24, 1957

The meeting reconvened at 10 a.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

XVI—4(c).—BYLAW AMENDMENT M-E-G

E. S. Parmenter, M.D.: The members of the Reference Committee on Constitution and Bylaws considered a long report submitted to The Council and directed to the members of the House of Delegates. This Committee, headed by Dr. R. J. Hubbell, has worked during the past year on revisions covering Chapters 6 and 7 of the Michigan State Medical Society Bylaws. These Bylaws were printed and sent to all county societies for comment. Only two offered suggested changes, which have been incorporated into this report. The proposed changes as approved by the Reference Committee on Constitution and Bylaws are as follows.

In handling this, perhaps we may handle it according to the chapters involved. I will read the corrections and changes covering the chapters and ask for your approval.

Suggested additions to Bylaws relative to grievance complaints from the public, covering Chapter 7, regarding grievances: From the sheets that you were given, Sections 1, 2, 3 and 4 were approved as printed. At the end of Section 1 add one line under (f), Committee on Mediation. This was approved.

Miscellaneous changes in Bylaws suggested: Delete from Chapter 2, Sections 6 and 7. This deletion was approved by your Reference Committee. Here you find reference to the resolution presented by the Wayne delegation, which we mentioned yesterday as being disapproved.

Mr. Speaker, at this point I move that this section of the report be approved.

R. W. Teed, M.D.: I second that.

[*The motion was put to a vote and was carried unanimously.*]

E. S. Parmenter, M.D.: Section 1. Delete from Chapter 10, Section 5, the last sentence.

[*The motion to approve was made, seconded and carried unanimously.*]

E. S. Parmenter, M.D.: Chapter 6, Conduct and Discipline of Members. Section 1, Standards of Conduct. Section 2, Grounds for Discipline. Section 3 on page 15 of the green sheets, Discipline—Definition and Purpose. Section 4, Authority to Discipline. These have all been approved as printed.

Section 5, Ethics Committee. With the addition of the last sentence, "It may be assisted by legal counsel for its component county society," delete that last sentence as printed on the green sheet. With that deletion, Section 5 was approved.

Sections 6, 7 and 8 were approved as printed.

Section 9, Answer and Formal Hearing. In the middle of the paragraph, in the ninth line, "It shall be the duty of the respondent to appear before the ethics committee in person at the time and place specified in such notice." Delete "and may be represented by counsel." "At such formal hearing it shall be the duty of the respondent to answer fully and fairly all questions pertaining to his conduct which may be put to him by any member of the committee." Delete the following words, "or by counsel for the component county society," and substitute "as put to him by members of the committee of the component county society."

With those deletions and additions, Section 9 was approved.

Mr. Speaker, I move the adoption of this Section.

J. E. Livesay, M.D.: I second that.

The Speaker: If you vote in favor of the motion you will delete all reference to the presence of legal counsel in these matters. There will be no counsel, legal or otherwise.

[*The motion was put and carried.*]

E. S. Parmenter, M.D.: Continuing with Chapter 6, Sections 11, 12, 13, 14, 15, 16, 17 and 18 are all approved as printed.

Mr. Speaker, I move that these be approved.

R. W. Teed, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—4(a).—SECTION REPRESENTATION IN MSMS HOUSE OF DELEGATES
(Const. Art. VII and Bylaws, Chap. 8, Sec. 1)

E. S. Parmenter, M.D.: A resolution was presented by Dr. Falls of Washtenaw County. The constitutional amendment asked that a representation in the House of Delegates be given to each of the specialty groups.

Our recommendation is an addition to constitution Article VII, a constitutional amendment to Article VII, regarding the House of Delegates.

Section 1 shall read: "The House of Delegates shall be the legislative body of the Michigan State Medical Society and shall consist of delegates elected by component county medical societies by the members of the authorized specialty sections, and delegates-at-large as prescribed by the Bylaws."

All that is added is "by members of the authorized specialty sections of the State Society." You will find that on the first pages of the Constitution.

Mr. Speaker, I move the adoption of this resolution.

H. F. Falls, M.D.: I second that motion.

The Speaker: It is the ruling of the Chair that this suggestion for constitutional amendment will be laid over for one year in accordance with the MSMS Constitution.

E. S. Parmenter, M.D.: There were two resolutions [XVI-4(b) and XVI-4(c)], one presented by E. H. Fenton, M.D., of Wayne County, and one by Sidney Adler, M.D., of Wayne County, which were considered. Thinking that they were completely covered in this larger area that we have discussed and passed upon this morning, the recommendation of the Reference Committee is that these two resolutions be disapproved.

I so move.

[*The motion was seconded and carried.*]

XII—25. PILOT STUDY OF INSURANCE REPORTING

A. C. Stander, M.D.: I would like to present a resolution.

"Whereas, there are more types of insurance reporting forms than insurance companies, and

"Whereas, much of the information requested is frequently not pertinent to the care of the patient, and frequently utilizes the physician for acquiring information that might well be part of the company's responsibility, and

"Whereas, the Health Insurance Council has developed group insurance forms: Attending Physician's Statement G D-1; Attending Physician's Supplementary Statement G DS-1; Surgeon's Statement G S-1, and

"Whereas, at a meeting of the Saginaw County Medical Society the Society went on record as being willing to undertake a pilot study as a typical county in the State of Michigan; therefore, be it

"RESOLVED: That this House of Delegates goes on record as approving this pilot study of the Saginaw County Medical Society."

The Speaker: This resolution will be referred to the Reference Committee on Resolutions.

XII—26. RESOLUTION RE STUDY OF THIRD MEDICAL SCHOOL FOR MICHIGAN

R. A. Rasmussen, M.D.: Mr. Speaker, I would like to present a resolution:

"Whereas, there is a recognized need for additional training facilities for medical doctors, and

"Whereas, the development of such facilities requires much advance planning, and

"Whereas, medical educators believe that there are adequate clinical facilities and medical personnel in the Grand Rapids area; therefore, be it

"RESOLVED: That the Michigan State Medical Society urge the State Legislature by appropriate action to investigate the feasibility of development of such a medical school in Grand Rapids."

This was referred to the Reference Committee on Legislation and Public Relations.

XII—27. RESOLUTION RE WOMAN'S AUXILIARY SPONSORSHIP OF FREEDOM ESSAY CONTEST

R. F. Fenton, M.D.:

"Whereas, the Michigan State Medical Society has frequently emphasized its avowed purpose of doing whatever it can to promote the American way of life, and

"Whereas, the retiring President of the Woman's Auxiliary to the Michigan State Medical Society has requested advice as to projects it might undertake; be it

"RESOLVED: That this House of Delegates suggest that they adopt sponsorship of the AAPS Freedom Essay Contest, and encourage their component county societies to implement this program locally."

This was referred to the Reference Committee on Officers' Reports.

XII—28. RE COMMENDATION TO L. R. LEADER, M.D., DETROIT

K. T. McGunegle, M.D.:

"Whereas, the work of Dr. Luther R. Leader as team physician to the Detroit Tigers has been of great value to the profession in the field of public relations; therefore, be it

"RESOLVED: That the House of Delegates commend Dr. Leader for his willingness to have undertaken this task."

This was referred to the Reference Committee on Legislation and Public Relations.

XII—29. RE RECOMMENDATION TO JOINT ACCREDITATION COMMITTEE TO ESTABLISH NEW SECTION ON SPECIAL SERVICES

C. I. Owen, M.D.:

"Whereas, there has been increasing identification with the hospital facility those medical services which require the use of paramedical personnel, and

"Whereas, physicians are legally and ethically responsible for the actions of our technical groups, not the hospital administration, and

"Whereas, this matter has been recently forcibly called to the attention of the Michigan State Medical Society through the action of the Michigan Hospital Service in extending their contract to types of outpatient services which are medical in nature; it is

"RESOLVED: That the Michigan State Medical Society delegates to the AMA House of Delegates be instructed to recommend the establishment of a Section on Special Services through the AMA representation to the Joint Accreditation Committee, and that such a Section on Special Services shall include pathologists, radiologists, anesthesiologists, physiatrists and psychiatrists in hospital staff organization, in addition to the present three Sections—Medicine, Surgery and Obstetrics—in order that complete and unbiased medical care representation will be had at the hospital staff level."

XII—30. ADDING PHYSIATRISTS IN PRESENT MSMS R-A-P SECTION

"Whereas, the Michigan Academy of Physical Medicine and Rehabilitation is constituted of a group of specialists, doctors of medicine, and

"Whereas, these doctors of medicine bear an analogous relationship with the hospital and with their paramedical personnel as do the pathologists, radiologists and anesthesiologists; it is

"RESOLVED: That the physiatrists be included in the Section of the Michigan State Medical Society composed of pathologists, radiologists and anesthesiologists."

These resolutions were referred to the Reference Committee on Resolutions.

XII—31. MSMS ADVISORY COMMITTEE TO MMS

E. G. Krieg, M.D.: Mr. Speaker, I would like to present this resolution on prepaid health insurance plans.

"Whereas, a tremendous amount of information on

prepayment health insurance has been acquired by various committees and surveys, and

"Whereas, this information will influence the character and extent of coverage to be offered, and

"Whereas, the large majority of members of this House of Delegates will not have sufficient time during this session to digest the information gathered; therefore, be it

"RESOLVED: That all available information collected by committees and surveys on prepayment health plans be turned over to the executive group of Michigan Medical Service, represented by Mr. Jay Ketchum, with instructions to draw up any policy or policies to contain the desired protection consistent with the information obtained in these studies, and consistent with good business principles of American enterprise, particularly the noninterference with doctor-patient relationship as far as that may be possible; and be it further

"RESOLVED: That Drs. Max Lichter, C. I. Owen and G. W. Slagle and other interested parties deemed advisable by The Council of the Michigan State Medical Society be appointed in an advisory capacity to Mr. Jay Ketchum and his staff."

THE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XVI—3(b). PERMANENT ADVISORY COMMITTEE ON FEES

L. J. BAILEY, M.D.: The Reference Committee received a report from the Permanent Advisory Committee on Fees. The report of this Committee was accepted with reservations.

Your Reference Committee notes that the intention of the resolution calling for the formation of this Committee provided for a continuing study on fees in order that this Committee, which is advisory, be in a position to advise.

From the report submitted we note that no such study has been initiated, but rather that the one meeting was organizational in nature and indicated a desire on the part of the Committee for further directive.

We recommend that this House direct the continuing study of fees, which we believe to have been the duty of this Committee, in order that it might be clearly advised as to its duties.

I move the adoption of this supplemental report of the Reference Committee.

P. C. GITTINS, M.D. [Wayne]: I second it.

[*The motion was put to a vote and was carried unanimously.*]

XVI—8(a). ESTABLISHMENT OF FULL-TIME CHAIRS OF PREVENTIVE MEDICINE AND PUBLIC HEALTH IN TWO MEDICAL SCHOOLS

C. W. OAKES, M.D. [Huron]: Our Reference Committee had two resolutions submitted to it. One was introduced by the delegate from Washtenaw County. In going over it we found that it was incomplete, and so we went over it with the person who introduced it, and had it rewritten. The "whereas" phrases mention the need of a Chair in Preventive Medicine in medical schools. The meat of the resolution is in the "Resolved" portion. May I read the "Resolved" section.

"RESOLVED: That the Michigan State Medical Society House of Delegates request that The Council of the Michigan State Medical Society suggest the establishment of a full-time Chair of Preventive Medicine and Public Health be considered by each of the two medical schools located in the State of Michigan."

Your Reference Committee approves the resolution as reworded, and moves its adoption.

O. K. ENGELKE, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—8(b). DISTRIBUTION OF INFLUENZA VACCINE

C. W. OAKES, M.D.: The second resolution is in regard to the Asiatic flu vaccine. Our Reference Committee was unable to verify the statement that the local postmaster may order Asiatic flu vaccine direct from the manufacturer, as stated in the resolution.

The Reference Committee feels that this resolution should be referred to The Council of the Michigan State Medical Society for investigation and action if warranted.

I so move.

R. W. TEED, M.D.: I second the motion.

[*The motion was carried.*]

XVI—9. ON MISCELLANEOUS BUSINESS

W. F. MERTAUGH, M.D. [Chippewa-Mackinac]: The report of the Reference Committee on Miscellaneous Business is as follows:

XVI—9(a). FEDERATED FUND RAISING

On resolution No. 5, "Fund Raising Drives," the Reference Committee approves the resolution in principle.

I move adoption of this resolution.

[*The motion was severally seconded, was put to a vote and was carried unanimously.*]

XVI—9(b). CREATION OF NATIONAL OR STATE CLEARING COMMITTEE TO INVESTIGATE NEW DRUG CLAIMS

W. F. MERTAUGH, M.D.: Reporting on resolution No. 15, "Clearinghouse for Drugs," the Reference Committee disapproves this resolution, and recommends that the delegate presenting this resolution obtain more explicit data and resubmit such data at a later time if he so desires.

I move adoption of this portion of the report.

J. E. LIVESAY, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

[*The meeting recessed at 11:40 a.m.*]

TUESDAY AFTERNOON SESSION

September 24, 1957

THE SPEAKER: It is my very distinct pleasure and privilege as Speaker of this House to present to you now the man whom you have chosen to represent you as Physician of the Year for 1957. Dr. Paul Van Riper, of Champion. I shall ask Dr. Narotzky to bring Dr. Van Riper to the platform.

[*The audience arose and applauded.*]

THE SPEAKER [continuing]: Dr. Van Riper, we are indeed happy to welcome you here. We hope you will make yourself at home. You not only represent yourself, but you represent a great many doctors of medicine in this State who are very proud of what you have done. Would you care to say a few words?

PAUL VAN RIPER, M.D.: I was told that, above all, I should not make a speech. My being selected was very good news. I do wish to express my thanks for the signal honor that has been conferred upon me. It was unexpected. Until yesterday afternoon I didn't have an inkling of anything like this.

I wish to thank you all for the kind gesture toward me. Thank you. [*Applause*]

THE SPEAKER: Now I should like the House to go into a Committee of the Whole for just a minute. We have here a very special resolution which has been submitted by the regional delegates from the fourth estate, which I would like to read to you:

"Whereas, the problem of the non-participating physician has been a matter concerning us in Blue Shield, and

"Whereas, William J. Burns has been elected to Hon-

orary membership in the Michigan State Medical Society, therefore be it

"RESOLVED: That if William J. Burns is found to be conducting himself other than as a participating physician in Blue Shield, his black bag, stethoscope and all his bills will be confiscated."

May I hear a vote of approval? [*Laughter and Applause*]

XVI—7(f). COMMENDATION TO L. R. LEADER, M.D., DETROIT

W. S. Reveno, M.D.: Two additional resolutions were presented to the Reference Committee this morning for its consideration. The first of these is resolution re L. R. Leader, M.D. The Reference Committee is unanimous in favor of this resolution, and I therefore move its adoption.

M. A. Darling, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—7(g). STUDY OF NEED FOR THIRD MEDICAL SCHOOL IN MICHIGAN

[*Dr. Reveno read the "Resolved" portion of resolution No. 31.*]

W. S. Reveno, M.D.: While the Reference Committee believes that the establishment of another medical school is in order and that it might properly be located in Grand Rapids, it does not feel that this is the time to take action regarding such a project. Rather, it would be more appropriate to expand presently existing facilities to meet the problem of training more physicians.

The Reference Committee therefore *disapproves* this resolution. I move the adoption of this action.

L. J. Bailey, M.D.: I support the motion.

[*The motion to disapprove was carried.*]

XVI—5(c). COLLECTION OF DUES

J. M. Wellman, M.D.: Your Reference Committee on Resolutions considered resolution No. 28, introduced by Dr. Candler, of Wayne, relative to the collection of dues. I shall read the "Resolved" portion of this resolution. (Read portion.)

The House of Delegates in 1956 adopted the present method of collection of county, State and AMA dues by a method of billing from the headquarters office in Lansing, by approving a recommendation to this effect which was submitted in the report of The Council.

Information was furnished your Reference Committee that this method of collection of dues in Wayne County has resulted in problems of billing and collection, and a considerable number of complaints from the members of that County Medical Society, and a substantial loss in percentage of dues collected.

It was also pointed out to the Reference Committe that the present method of collection of dues has resulted in a loss of income from the Wayne County Society to the State Medical Society.

In consideration of these facts, your Reference Committee recommends the adoption of this resolution as submitted.

I so move, Mr. Speaker.

F. P. Rhoades, M.D. [Wayne]: I second that motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—5(d). PILOT STUDY OF INSURANCE REPORTING FORMS

J. M. Wellman, M.D.: Your Reference Committee next considered resolution No. 30, introduced by A. C. Stander, M.D., of Saginaw, relative to a pilot study on standard insurance forms.

Your Reference Committee recommends the adoption of this resolution, and I so move.

C. W. Oakes, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—5(e). RECOMMENDATION TO JOINT ACCREDITATION COMMITTEE TO ESTABLISH NEW SECTION ON SPECIAL SERVICES

J. M. Wellman, M.D.: Next was resolution No. 34, introduced by Dr. Owen, of Wayne, entitled "Section on Special Services."

Your Reference Committee feels, first, that this resolution is too inclusive; second, that it does not represent the formal opinion of the various groups mentioned in the resolution; third, that the editor of the resolution is not cognizant of the extensive financial support that is required by each member organization represented on the Joint Commission on Accreditation.

For these reasons your Reference Committee recommends unanimously that this resolution be disapproved, and I so move.

R. W. Teed, M.D.: I support the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—5(f). ADDING PHYSIATRISTS IN PRESENT MSMS R-A-P SECTION

J. M. Wellman, M.D.: Resolution No. 35, introduced by Dr. Owen of Wayne, was entitled, "Section Affiliation for Physiatrists."

[*Dr. Wellman read the "Resolved" portion of resolution No. 35.*]

J. M. Wellman, M.D. [continuing]: Your Reference Committee recommends that this resolution be *disapproved,* and suggests that this matter might be submitted to the Section on Radiology, Pathology and Anesthesiology of the Michigan State Medical Society for consideration.

Mr. Speaker, I move the adoption of this recommendation.

F. P. Rhoades, M.D.: I support the motion.

[*The motion was put to a vote and was carried unanimously.*]

[*The Vice Speaker assumed the Chair.*]

Chairman Lightbody: Dr. Furlong, will you present the report of the Reference Committee on Reports of The Council?

XVI—10. ON REPORTS OF THE COUNCIL XVI—10(a). ANNUAL REPORT OF THE COUNCIL

H. A. Furlong, M.D.: Your Reference Committee on reports of The Council has held two rather long sessions at which all members were present. In considering the splendid annual report of The Council, the Reference Committee would like to comment on several items as follows:

On page 52 of the financial report, the statement is made that dues on the basis of $28.50 per member is allocated to the General Fund. Lest there be some confusion, the Reference Committee points out that of the $55 annual dues paid by members of the Society, only $28.50 are allocated to the General Fund, but the balance of dues are allocated to the Public Education Reserve, the Public Education Account, the Public Service Account, the Professional Relations Account, the present Building Maintenance Fund, and to a new MSMS Headquarters Fund. The total amounts are as indicated in the report.

In the report of The Journal, the Reference Committee wishes to commend the Journal of the MSMS on its new format and on the continued excellence of its editorials and scientific articles.

The Organization section: The Reference Committee wishes to express special approval of The Council's

action in (1) the creation of the position of Director of Scientific Activities, and (2) the creation of the position of Assistant Editor of THE JOURNAL, and especially the fortunate choice of Dr. Louis J. Bailey of Detroit.

The achievements of the Public Relations Program are to be especially commended for their excellence.

The Reference Committee takes cognizance of the splendid program of the Woman's Auxiliary, and extends its most hearty congratulations to this organization.

In the report on the contact with governmental agencies, it should be brought to the attention of the House of Delegates that The Council welcomes suggestions from the general membership of the MSMS for any suggestions that will improve the Medicare program. The Reference Committee suggests that the delegates call the attention of their county medical societies to this program, and that suggestions for its improvement should be transmitted to The Council prior to the time of renegotiations of the new contract in March, 1958. The Reference Committee is well aware of the many difficulties connected with the functioning of the Medicare program.

In the report of the Committee on the Study of the Basic Science Acts, a minor typographical error occurred in the tabulation in the middle of page 70. This should read "7 chiropractors—1 per cent" instead of the "7 per cent" as indicated.

The attention of the House of Delegates is directed to the report of the Committee on Courses on Medical Economics and Ethics, and particularly to the paragraph on the bottom of page 73. It is highly desirable of establishing a course in medical ethics and economics at Wayne State University similar to that already provided at the Medical School of the University of Michigan. This is a matter of great importance and should be referred to the appropriate committee for action.

The Reference Committee feels that commendation is due to the fine work of the many committees that have been appointed by The Council during the past year. There are many items in this report which the Reference Committee probably should mention. Due to the limitations of time we can only recommend that this splendid report be read in its entirety and called to the attention of the component county medical societies, and to the various committees the Reference Committee extends its congratulations.

The Reference Committee acted upon the recommendations of The Council as follows:

(1) That The Council be authorized to send MSMS representatives to Washington, D. C., in 1958 on the occasion of the Annual Michigan Day, as recommended by last year's House of Delegates. The Reference Committee recommends approval of this recommendation.

The Reference Committee moves that this recommendation be adopted.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

H. A. FURLONG, M.D.: The second recommendation of The Council:

(2) That serious consideration be given to the Committee on Mediation, Ethics and Grievances. While this matter has been presented by another committee to the House of Delegates, this Reference Committee recommends approval of the recommendation. I so move.

J. A. KASPER, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

H. A. FURLONG, M.D.: Recommendation No. 3: That the Legislative Committee's resolution regarding re-registration of doctors of medicine be approved.

The Reference Committee approves of the matter of annual re-registration of doctors of medicine. The recommendations of the Committee will be presented when the matter of resolution No. 29 is presented for action.

Recommendation No. 4: The Council recommends that the Michigan State Medical Society dues for 1958, for one year only, be increased $50 to raise sufficient funds to start the MSMS building as soon as possible.

This is where the Reference Committee went into a hassle. [*Laughter*] In considering this recommendation of The Council we also, at the same time, considered two resolutions that were presented to the Reference Committee. I will read the "Resolveds."

[*Dr. Furlong read the "Resolved" portions of resolutions introduced by Drs. Thorup and Babcock.*]

The Reference Committee spent considerable time in discussion of this matter. We were fortunate to have before us several members of the staff and The Council to give us advice.

It is the feeling of the Reference Committee that these two resolutions should be disapproved, and the Reference Committee suggests the following plan for the financing of the new MSMS headquarters:

That an assessment of $5 be levied upon each member for the year 1958.

That an assessment of $5 be levied upon each member for the year 1959. (That is an additional $5 to the amount already levied.)

That $10 be assessed for the year 1960.

That $10 be assessed for the year 1961. (In other words, in 1960 and 1961 the dues would be $15. That totals in those four years the $50 recommended by The Council. That would give the headquarters, we feel, adequate time for planning and building of the headquarters. It will spread it over a four-year period and will obviate any difficulty that some of the component societies may encounter because of their present plans.)

I would like to move the disapproval of the two resolutions and the acceptance of the plan suggested by the Reference Committee for the raising of the money to finance the new headquarters.

W. W. BABCOCK, M.D.: I second the motion.

E. S. PARMENTER, M.D.: I would like to ask that the method of assessment be repeated, please.

H. A. FURLONG, M.D.: You understand, Doctor, that a $5 increase in dues was passed last year. It is our idea that that $5 would be carried on into the next four years. In addition, in 1958 an additional $5 would be raised, which would make the dues increase $10. The same would apply in 1959; in other words, another $5 would be added to the $5 already levied. In 1960 and 1961, in addition to the $5 already levied, an additional $10 would be levied, which would make the total of $50 recommended by The Council.

Is it clear?

CHAIRMAN LIGHTBODY: Do you refer to this as an assessment or an increase in dues?

HARVEY C. HANSEN, M.D. [Calhoun]: Is this presented as a motion?

H. A. FURLONG, M.D.: We have referred to this as an assessment. We discussed the matter at great length, and it was the feeling of the Reference Committee and those who appeared before it that it would be best to call this an assessment rather than an increase in dues.

HARVEY C. HANSEN, M.D.: It appears that the motion suggested by the Chairman of the Reference Committee was that we deny the two resolutions and vote on those at the same time we approve this additional assessment. I think they are two separate motions and should be voted upon separately.

CHAIRMAN LIGHTBODY: The motion can be divided if the delegates so desire.

S. E. ANDREWS, M.D. [Kalamazoo]: I object to calling it an assessment, because I understood that an assessment is a taxable thing, while one may deduct

dues from one's income tax. It would seem that the net result would be quite a lot different. If you call it "dues," that's fine; but if you call it an assessment, it is going to cost us more.

CHAIRMAN LIGHTBODY: I will ask the Chairman of the Reference Committee to speak to that point.

H. A. FURLONG, M.D.: It was the consensus of the Reference Committee that that probably didn't make any difference, whether you call it "assessment" or "dues" as far as tax purposes are concerned. If there is someone here who can give us a better opinion than that, we will be very glad to receive it.

CHAIRMAN LIGHTBODY: I would like to ask if the delegates would like to divide this motion or vote on it as made by the Chairman of the Reference Committee.

O. J. JOHNSON, M.D.: Dr. Babcock introduced a resolution asking that estimates be made on how much is going to be necessary for this building. I think that is only a sound practice. In essence we are saying, "Here is $300,000 plus what we already have in the kitty. Go head and spend that much money."

We have no idea how much the building would cost. Apparently the plans have not been drawn. An option has not been taken on any property. We don't know what quarters are necessary.

I move that we vote on the two resolutions separate from the recommendation of the Reference Committee.

[*The motion was severally seconded, was put to a vote, and was carried.*]

XVI—10(b). PROPOSED INCREASE IN DUES FOR BUILDING FUND (THORUP)

CHAIRMAN LIGHTBODY: Now I will ask the Chairman of the Reference Committee to make a motion to disapprove the first resolution, namely, that presented by Dr. Thorup, and we will discuss each one separately.

H. A. FURLONG, M.D.: The Reference Committee recommends the disapproval of Resolution No. 1, presented by Dr. Thorup of Berrien County.

The motion is to disapprove this resolution, and I so move.

[*The motion was severally seconded, put to a vote and carried unanimously.*]

XVI—10(c). PROPOSED INCREASE IN DUES FOR BUILDING FUND (BABCOCK)

CHAIRMAN LIGHTBODY: We will proceed with the second resolution, presented by Dr. Babcock.

H. A. FURLONG, M.D.: The Reference Committee recommends the **disapproval** of this resolution for the reasons stated above, and I so move.

[*The motion was severally seconded.*]

W. W. BABCOCK, M.D.: For the record, I wish to endorse the action of the Reference Committee, and ask that my resolution be disapproved. The reason is as follows:

I was at the Reference Committee meeting at 1 a.m. this morning, and we talked this over. The State Council has really gone along. We all need and want new headquarters. Headquarters needs money to start buying land, getting an architect and doing the preliminary work.

By the compromise suggested by the Reference Committee, I feel no severe hardship will be laid on anyone, and I am certain that next year plans and specifications—ideas, and the like—will be submitted to the House of Delegates by The Council. I think we can certainly trust them to that extent.

CHAIRMAN LIGHTBODY: Thank you, Dr. Babcock. The question is called for.

[*The motion was put to a vote and was carried unanimously.*]

XVI—10(a). ANNUAL REPORTS OF THE COUNCIL (CONTINUED)

CHAIRMAN LIGHTBODY: We shall now proceed to the recommendation of the Reference Committee relative to the assessment of money on a graduated scale from 1958 to 1961.

H. A. FURLONG, M.D.: The Reference Committee suggests the following plan for the levying of funds for the MSMS headquarters: That an assessment of $5 be levied upon each member for the year 1958, in addition to the $5 already levied; that an assessment of $5 be levied upon each member for the year 1959 in addition to the $5 already in force; that $10 be assessed for the year 1960 in addition to the $5 already levied; that $10 for the year 1961 be levied in addition to the $5 already in force, which over a period of four years makes the $50 increase in dues recommended by The Council.

The Reference Committee recommends approval of this suggestion, and I so move.

F. P. RHOADES, M.D.: I second the motion.

[*The motion was put to a vote and was carried.*]

XVI—10(d). ANNUAL REGISTRATION OF M.D.'s

H. A. FURLONG, M.D.: Resolution No. 29 was submitted to the Reference Committee for consideration.

The Reference Committee also spent considerable time in discussing this matter. It was discussed at some length with the Chairman of the Legislative Committee. It was pointed out to the Reference Committee that the time has arrived when the annual registration of doctors will probably be imposed. Some rather fantastic figures were quoted as to the amounts that were considered last year, I would say up to $50.

We are in the position now of having to give our Legislative Committee considerable backing, and we feel quite confident that, whether we like it or not, annual registration of doctors will be enforced in the next session of the Legislature, and that we might as well have this thing done to our liking.

The Reference Committee agrees with the general program of annual re-registration of doctors, but would like to make this recommended change in this resolution. I will read the last "Resolved":

"RESOLVED: That if such legislative changes must necessarily embody a form of annual licensure for M.D.'s, that this House of Delegates endorses a fee of $5."

The Reference Committee recommends that this wording be changed by inserting the words "not to exceed" before the figure of $5.

The Reference Committee moves the adoption of this amended recommendation.

R. W. TEED, M.D.: I second that.

[*The motion was put to a vote and was carried unanimously.*]

XVI—10(a). ON REPORTS OF THE COUNCIL (CONTINUED)

H. A. FURLONG, M.D.: The supplemental report of The Council was submitted to the Reference Committee for consideration. The Reference Committee made no changes in the supplemental annual report of The Council as submitted. However, there were two additional recommendations made by The Council.

Recommendation No. 5: "That The Council be authorized to pursue its study of group life insurance, to the end that MSMS can offer as an added benefit of membership the best program tailored to the needs of Michigan's medical men."

The Reference Committee moves approval of this recommendation of The Council.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

Recommendation No. 6: "That The Council be authorized to arrange councilor conferences prior to the annual session, to continue communications with and impart information to the membership."

The Reference Committee approves this recommendation of The Council, and I so move.

J. A. Kasper, M.D.: I support the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—10(e). STUDY OF RELATIVE VALUE SCHEDULE OF SERVICES

H. A. Furlong, M.D.: Resolution No. 14 was submitted by Ingham County and was considered by the Reference Committee. I am sorry I don't have it in my hand, but it had to do with a matter that is under study at the present time by the Committee on Medical Service and Prepayment Insurance.

We recommend disapproval of this resolution for that reason. Perhaps Miss Schulte has a copy of that resolution.

[*Dr. Furlong read the "Resolved" portion of resolution No. 14.*]

Your Reference Committee considered this matter. Because it is a matter that is already being studied by another committee, namely, the Committee on Medical Service and Prepayment Insurance, your Reference Committee recommends disapproval of this resolution.

I so move.

[*The motion was severally seconded.*]

H. W. Harris, M.D. [Ingham]: This resolutoin was not introduced without considerable forethought. It was introduced with the idea of augmenting the work of the Committee headed by Dr. Slagle relative to prepaid insurance.

It is unfortunate that this resolution comes up at this time, because Dr. Slagle's resolution is in the hands of another committee, and no one knows what their recommendation will be nor how the House will deal with it.

Therefore, rather than disapproving this resolution, I would like to move that it be laid on the table until the other committee has reported. If the measures recommended herein are covered by that committee's report, then this is of no value and can be deleted. However, to disapprove it now may mean this House will be without such a resolution, which I believe to be in the interest of and, in fact, the desire of many of the members.

R. W. Teed, M.D.: I support the motion *to lay this on the table.*

[*The motion was put to a vote and was carried unanimously.*]

Chairman Lightbody: We will now call for the report of the Reference Committee on Medical Service and Prepayment Insurance.

XVI—11. ON MEDICAL SERVICE AND PREPAYMENT INSURANCE

XVI—11(a). REPORT OF OPINION STUDY OF MSMS

M. L. Lichter, M.D.: The Reference Committee on Medical Service and Prepayment Insurance submits herewith a partial report of the multitudinous business directed to it.

The Reference Committee has had a tremendous amount of work given to it, and has been hampered somewhat in conducting its meetings due to the pressure of time.

The first item to be presented is in connection with the report of the Survey Committee, which was referred to your Reference Committee.

The remarks of the Speaker and Vice Speaker, the Survey Director and the President-elect were received and approved by the Reference Committee.

In considering this report, the Reference Committee was aware of the great national interest evoked by the survey. Present were representatives from many state medical societies throughout the country; the insurance industry; associations concerned with health services; editors from state medical journals and national medical journals, and members of the press. In addition, numerous requests are being received from a variety of interested organizations.

The Reference Committee was impressed with the extent of the study and the thoroughness with which it was conducted. The Reference Committee strongly urges the utilization of the data of this admirable survey by all those concerned with the subject of prepaid medical care insurance.

Your Reference Committee highly commends the Survey Committee for an assignment well done. Particular commendation is due the Survey Director, Mr. Hugh W. Brenneman, our esteemed Public Relations Counsel, for his unflagging zeal in organizing this monumental effort, his leadership which earned the untiring co-operation of his staff, and his meticulous attention to myriad of detail—and still completing the task on time.

The Reference Committee wishes also to express its highest commendation to those who worked with Mr. Brenneman in this study:

To L. Fernald Foster, M.D., MSMS Secretary, and Mr. William J. Burns, MSMS Executive Director, who with Consultant David J. Luck, Director of the Business Research Institute of Michigan State University and Richard B. Oudersluys, Director of the Market-Opinion Research Company, supported and wisely counseled.

To Warren F. Tryloff, Associate Director of the Study, and Dick Philleo, Supervisor of Production, who at great personal sacrifice devoted their recognized talents unceasingly to the successful execution of the study.

To John B. Kantner of the Michigan Health Council, who so ably wrote, and advised upon the preparation of, the report, as well as the attendant publicity in co-operation with Miss Kay Asby, a devoted and competent special survey assistant.

To Jack Pardee, Miss Jean MacDonald, Miss Vada Studt, Miss Helen Schulte, and the MSMS stenographic staff, who sincerely contributed with their interest and time to the production of the materials upon which the survey depended.

And to Artist Dirk Gringhuis, whose advice and assistance aided the publicity and was responsible for the fine appearance of the report.

Mr. Chairman, I move the adoption of this portion of the report.

C. L. Weston, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—11(b). REPORT OF COMMITTEE TO STUDY COMPREHENSIVE PREPAID INSURANCE PLANS

M. L. Lichter, M.D.: The next item of business considered by the Reference Committee was the report of the Comprehensive Prepaid Medical Care Plan Study Committee, which was ordered by this House at the meeting in September, 1956. I will read the "Resolved" portion of the resolution ordering this Committee:

"RESOLVED: That the Michigan State Medical Society approve exploration with Michigan Medical Service of a comprehensive prepaid deductible and/or co-insurance contract and also the possibility of extension of the present contract; and be it further

"RESOLVED: That the Speaker of this House of Delegates be authorized to appoint forthwith a special committee to accomplish the following:

1. Meet with the representatives of Michigan Medical

Service to study and develop details and mechanisms.

2. Initiate as a joint endeavor, and in co-operation with Michigan Medical Service, necessary studies to ascertain what would best serve the public.

3. Prepare a complete report for presentation to the House of Delegates at its meeting in 1957, with the proviso that copies of this report shall be sent to each member of the House of Delegates by August 15, 1957.

Your Reference Committee directs me as its Chairman to make the following report on the report of this Committee:

We feel that the Committee and its members should be commended for having taken a difficult assignment and carrying it out in a fine manner.

The question is whether I should read the entire report. [*Cries of "Yes."*]

CHAIRMAN LIGHTBODY: This is the report of Dr. Owen's Committee. Did all the delegates receive a copy of the report? I am sure all of you did. Do you wish to have this report read at this time? [*Cries of "No."*]

M. L. LICHTER, M.D.: Your Reference Committee considered the report in its several parts. The first part, which goes nearly to the bottom of page 2, we informally called the Preamble, and we agreed with it in principle and so recommend to this House.

I so move, Mr. Chairman.

J. A. KASPER, M.D.: I support the motion.

CHAIRMAN LIGHTBODY: The motion is to approve the report of Dr. Owen's Committee to the bottom of page 2, ending with the word "recommendation." Is there discussion?

[*The motion was put to a vote and was carried unanimously.*]

[Dr. Lichter read the remaining portion of the report of the Committee to Study Comprehensive Prepaid Insurance Plans, marked No. 1.]

M. L. LICHTER, M.D.: I shall now read the recommendations of the Reference Committee concerning the recommendations of the Study Committee. If I may, Mr. Chairman, I should like permission to read them all, and then take them up one at a time.

CHAIRMAN LIGHTBODY: Proceed.

M. L. LICHTER, M.D.: I am going to read the recommendations of the Reference Committee in their entirety, and the Chair will then decide what will be done with them.

Under the recommendation of the Owen Committee report:

(1) We recommend the adoption of this recommendation.

(2) We offer the following substitution for recommendation No. 2: "That Michigan Medical Service be urged to give consideration to the development of a means whereby the patient of a non-participating physician will be reimbursed by Michigan Medical Service an amount not to exceed the fee called for in the contract fee schedule, unless the patient directs otherwise."

(3) We recommend that this recommendation be changed to the following wording: "That we encourage continued effort to provide broad coverage by Michigan Medical Service for retired people. When welfare and relief agencies desire prepaid medical care coverage for their clients, Michigan Medical Service should stand ready to co-operate."

(4) We recommend that this recommendation be changed to the following wording: "That Michigan Medical Service be urged to give consideration to the inclusion in their contracts of the following additional items:

(a) Office surgery.
(b) Diagnostic x-ray out of the hospital.
(c) Therapeutic x-ray procedures.
(d) Diagnostic laboratory procedures in and out of the hospital.
(e) Physiotherapy in and out of the hospital.
(f) Consultations and surgical assistants.

"And, further, where it would prove necessary to incorporate deductible insurance and/or co-insurance in such contracts, Michigan Medical Service be urged to give consideration to such features."

Recommendation No. 5 in the main was identical with recommendation No. 4, and therefore most of it was incorporated in recommendation No. 4.

(5) We recommend that this recommendation be changed to the following wording: "that the $2.500 and $5,000 contracts be retained."

(6) No action is recommended because we have been informed that The Council is cognizant of the over-all problem of hospital classification and has it under advisement.

(7) and (8) We recommend that these two recommendations be combined with the following wording: "That The Council of the Michigan State Medical Society be urged to develop educational programs covering all phases of prepaid medical care insurance."

(9) We recommend that this recommendation be changed to the following wording: "That the present method of determining income be re-examined."

(10) We recommend that this recommendation be changed to the following wording: "We are opposed to prepayment plans which restrict the subscriber's free choice of a doctor of medicine."

(11) We recommend the adoption of this recommendation.

We have made extensive use of the Opinion Survey in connection with this report, and on nearly all items the Survey contains data. I can go over these recommendations and give the applicable data, or I can do it as you discuss these items.

Mr. Chairman, I move the adoption of this portion of the report of the Reference Committee.

F. D. JOHNSON, M.D. [Genesee]: I support the motion.

R. A. RASMUSSEN, M.D.: On recommendation No. 4 of the Reference Committee there was a rewording in regard to the use of payment for use of consultants and assistants. There has been a considerable amount of discussion about the use of assistants. Many hospitals in our cities have house staffs that may render assistance at times, and there are many hospitals outstate who do not have such house staffs, and they perform certain procedures, surgical primarily, and it may even be necessary to engage the assistance and help of fellow practitioners.

I would suggest that the Reference Committee add the words "when necessary" to this, because otherwise there might be considerable misuse of funds.

M. L. LICHTER, M.D.: It was the feeling of the Reference Committee that this suggestion to Michigan Medical Service would have that sort of limitation as part of the mechanics of developing this particular feature. We were concerned with the principle of obtaining surgical assistance and not defining it any further.

CHAIRMAN LIGHTBODY: Is there a motion to so amend?

R. A. RASMUSSEN, M.D.: I so move.

W. C. BEETS, M.D.: I second the motion.

CHAIRMAN LIGHTBODY: The motion is to amend the report in relation to No. 4(f), and to add the words "when necessary." Is there discussion of the amendment?

W. W. BABCOCK, M.D.: Mr. Chairman, I do not feel that the amendment is necessary, because the Reference Committee specifically requests that Michigan

Medical Service give consideration to these following items. It does not direct them to incorporate.

[*The amendment was put to a vote and was lost.*]

CHAIRMAN LIGHTBODY: The amendment is lost.

A. C. STANDER, M.D.: May I ask for clarification of one point. Did you eliminate in your recommendation 4(d) therapeutic x-ray and radium? I don't recall hearing that read.

M. L. LICHTER, M.D.: No. 4(c), "Therapeutic x-ray procedures." That is in the recommendation.

A. C. STANDER, M.D.: Instead of "Therapeutic x-ray and radium"?

M. L. LICHTER, M.D.: We are told that when one uses the terminology "therapeutic x-ray procedures" it is all-inclusive.

CHAIRMAN LIGHTBODY: The motion is to approve this portion of the report. Is there further discussion?

L. J. BAILEY, M.D.: Are we approving all eleven recommendations in the Owen report as amended?

CHAIRMAN LIGHTBODY: Yes, as amended.

L. J. BAILEY, M.D.: When the Chairman of the Reference Committee said he was going to read all these recommendations, he said he would read them all and then take them up one at a time.

I move you that they be taken up one by one.

R. W. TEED, M.D.: Is there not a valid motion on the floor?

CHAIRMAN LIGHTBODY: There is a motion for adoption of this portion of the report up to now. With the permission of the maker of that motion, who is the Chairman of the Reference Committee, we might proceed to discuss each item separately.

M. L. LICHTER, M.D.: Mr. Chairman, I withdraw my motion to approve this portion of the report.

CHAIRMAN LIGHTBODY: With the consent of the seconder we will remove that motion from the floor. Thank you.

There is a motion to discuss each one of these recommendations separately. It has been seconded by several. Are you ready to vote?

[*The motion was put to a vote and was lost.*]

CHAIRMAN LIGHTBODY: The motion is lost.

F. D. JOHNSON, M.D.: Mr. Chairman, I did not remove my second to the original motion.

M. L. LICHTER, M.D.: Mr. Chairman, I move the adoption of this portion of the report.

[*The motion was severally seconded.*]

CHAIRMAN LIGHTBODY: It is moved and seconded that this portion of the report be approved, that is, the recommendations of the Reference Committee as amended up to this point. That is the motion before you. Is there further discussion?

[*The motion was put to a vote and was carried.*]

XVI—11(c). FROM APRIL, 1957, HOUSE OF DELEGATES SESSION RE RECOGNITION OF PATHOLOGY UNDER MEDICARE

M. L. LICHTER, M.D.: Your Reference Committee had two resolutions (among many submitted to it) on which it is prepared to report, namely, resolutions Nos. 25 and 26. They deal with the same general topic, yet they cannot be combined.

The Reference Committee has taken the motions as submitted and has amended them, not in substance but for clarification. May I read the clarified version of these motions and save the time of the House in reading the same thing over again.

I have been instructed to read the "Resolved" portions of the original resolutions. I believe it might be best to read them *in toto*.

[*Dr. Lichter read resolutions Nos. 25 and 26.*]

M. L. LICHTER, M.D.: Now, Mr. Chairman, with your permission I should like to read the amended version of resolution No. 25:

"Whereas, the American Medical Association and the Michigan State Medical Society have declared that the practice of pathology is the practice of medicine, and

"Whereas, pathologic services may be rendered in or outside of a hospital, and

"Whereas, such pathological services can be performed only by or under the supervision of qualified physicians, and

"Whereas, the Michigan Medical Service has contracted for the Michigan State Medical Society and for the physicians of Michigan with the Department of Defense to supply medical services to dependents of the uniformed forces under public Law No. 569 of the 84th Congress (otherwise known as the Dependent's Medical Care Act, or 'Medicare'), and

"Whereas, certification of medical services rendered can be made only by physicians; be it therefore

"RESOLVED: That in all future 'Medicare' contract negotiations recognition be made of the principle that pathology is a medical service and that every reasonable effort be made to have fees for such services paid to the physicians rendering the services."

Mr. Chairman, I move the adoption of this resolution as amended.

J. A. KASPER, M.D.: I support the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—11(d). FROM APRIL, 1957, HOUSE OF DELEGATES SESSION RE RECOGNITION OF PATHOLOGY IN BLUE CROSS-BLUE SHIELD

M. L. LICHTER, M.D.: Now may I read the "Resolved" portion of original resolution No. 26.

[*Dr. Lichter read the "Resolved" portion of resolution No. 26.*]

The amended resolution is as follows:

"Whereas, the American Medical Association and the Michigan State Medical Society have declared that the practice of pathologic anatomy and clinical pathology is the practice of medicine, and

"Whereas, pathologic services whether rendered to inpatients or outpatients are medical services, and

"Whereas, such pathologic services can be performed only by or under the supervision of qualified physicians, and

"Whereas, the Michigan Medical Service has contracted for the Michigan State Medical Society and for the physicians of Michigan to supply medical services to subscribers, and

"Whereas, certification of medical services rendered can be made only by physicians; be it therefore

"RESOLVED: That the Michigan State Medical Society hereby declares that pathology is a medical service, and that coverage for such services should be included in the Michigan Medical Service contracts rather than in the Michigan Hospital Service contracts, and that fees for such services should be paid to the physicians rendering the services; and be it further

"RESOLVED: That a copy of this resolution be forwarded to the corporate body of the Michigan Medical Service and its Board of Directors."

Mr. Chairman, I move the adoption of this resolution as amended.

R. W. TEED, M.D.: I support the motion.

[*The motion was put to a vote and was carried unanimously.*]

THE SPEAKER: There are two reports to be called for at this time. Dr. Sellers, do you have a supplemental report of the Reference Committee on Officers' Reports?

XVI—14(f). WOMAN'S AUXILIARY SPONSORSHIP OF FREEDOM ESSAY CONTEST

CHARLES SELLERS, M.D.: The Reference Commit-

tee on Officers' Reports had one short resolution referred to it, submitted by R. F. Fenton, M.D.

[*Dr. Sellers read the "Resolved" portion of resolution No. 32.*]

The Reference Committee approves the suggestion of the Woman's Auxiliary to the Michigan State Medical Society, and encourages its component societies to promote the American Association of Physicians and Surgeons Freedom Essay Contest among high school students as one of their projects.

Mr. Speaker, I move that this portion of the report be accepted.

Hugh W. Henderson, M.D. [Wayne]: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

[*The meeting adjourned at 5:30 p.m.*]

TUESDAY EVENING SESSION
September 24, 1957

The meeting reconvened at 8:30 p.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

The Speaker: It is customary at the last session of the House of Delegates to introduce the Past Presidents who may be present. I shall call their names, and if they are here I shall appreciate their coming down to the front.

W. S. Jones, M.D., Menominee.
L. Fernald Foster, M.D., Bay City.
L. W. Hull, M.D., Detroit.
R. J. Hubbell, M.D., Kalamazoo.
R. L. Novy, M.D., Detroit.
Otto O. Beck, M.D., Birmingham.
C. E. Umphrey, M.D., Detroit.
Wilfrid Haughey, M.D., Battle Creek.
E. F. Sladek, M.D., Traverse City.
William A. Hyland, M.D., Grand Rapids.
Henry R. Carstens, M.D., Detroit.
J. Milton Robb, M.D., Detroit.
Grover C. Penberthy, M.D., Detroit.
Burton R. Corbus, M.D., Grand Rapids.
Paul R. Urmston, M.D., Bay City.

We are very happy to have you gentlemen with us. It is always a distinct honor and privilege for the Speaker to introduce you gentlemen to the House of Delegates.

O. K. Engelke, M.D.: Mr. Speaker, I move that the usual order of business be suspended, that at this time we proceed with item 30 on the agenda, the election of officers, and that following the election we entertain the report of the Reference Committee.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVII. ELECTIONS

The Speaker: We shall proceed.

The first item under elections will be the nomination of Councilor for the Seventh District. H. B. Zemmer, M.D., of Lapeer, is the present incumbent. Do I hear nominations?

C. W. Oakes, M.D.: May we defer this item for a moment? The man who was to make a nominating speech is not here. May we come back to it?

The Speaker: Very well.

XVII—1. COUNCILOR FOR THE EIGHTH DISTRICT

Councilor for the Eighth District: L. C. Harvie, M.D., of Saginaw, is the incumbent. Nominations are open for Councilor from the Eighth District.

H. L. Gordon, M.D. [Midland]: On behalf of Tuscola County, Saginaw, Gratiot, Isabella, Clare and Midland, I would like to propose the name of E. S. Oldham, M.D. He is an old friend, well known in all of these counties. He is in an excellent position to represent these component societies, and I think he will add a spark that those societies would like to see in The Council.

I nominate Dr. E. S. Oldham, of Breckenridge, as Councilor of the Eighth District.

J. P. Markey, M.D. [Saginaw]: I second the nomination.

The Speaker: Are there further nominations? What is your pleasure?

O. K. Engelke, M.D.: I move that nominations be closed and that a unanimous ballot be cast for Dr. Oldham.

The Speaker: I believe the Chair will rule that inasmuch as there is no other nominee, and as there is a quorum present in this room, it will be perfectly in order if we vote on this nominee as presented.

All those in favor, say "aye"; opposed, "no." Dr. Oldham is elected. [*Applause*]

XVII—2. COUNCILOR FOR THE NINTH DISTRICT

Councilor for the Ninth District: G. B. Saltonstall, M.D., Charlevoix, is the incumbent.

R. V. Daugherty, M.D. [Wexford-Missauke]: I would like to nominate G. B. Saltonstall as Councilor for the Ninth District.

The Speaker: Dr. Saltonstall has been nominated as Councilor for the Ninth District. Are there further nominations?

H. C. Hansen, M.D. [Calhoun]: I move that nominations cease and that the Secretary cast the unanimous ballot.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

The Speaker: Dr. Saltonstall has been elected.

XVII—3. COUNCILOR FOR THE TENTH DISTRICT

Tenth District: W. S. Stinson, M.D., Bay City, is the incumbent. Are there nominations for Councilor for the Tenth District?

D. A. Bowman, M.D. [Bay-Arenac-Iosco]: I am speaking for the Tenth District and the counties involved. I would like to place in nomination the name of O. J. Johnson, M.D., as Councilor for the Tenth District.

F. D. Johnson, M.D.: I second the nomination of Dr. Johnson.

I move that nominations be closed and that a unanimous ballot be cast for Dr. Johnson.

[*The motion was severally seconded.*]

D. A. Bowman, M.D.: May I make a statement in explanation of why Dr. Stinson was not renominated? Dr. Stinson is ill. He has plasma cell myeloma and is in the hospital.

The Speaker: Thank you very much, Dr. Bowman.

[*The motion was put to a vote and was carried unanimously.*]

XVII—4. COUNCILOR FOR THE SEVENTH DISTRICT

The Speaker: Is the Seventh District now ready?

K. T. McGunegle, M.D.: Due to circumstances which will probably come up later on in the evening, Dr. Zemmer does not wish to run again for the office of Councilor.

We have an excellent man in our District whom all of you know. His qualifications are known because they were printed in the yellow book we received this afternoon. I would like to nominate J. F. Beer, M.D., of St. Clair, as Councilor for the Seventh District.

F. P. Rhoades, M.D.: I second the nomination.

C. W. Oakes, M.D.: I second that nomination also, and move that nominations be closed and that the Secretary cast a unanimous ballot for Dr. Beer.

O. K. Engelke, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVII—5. DELEGATES TO AMA

The Speaker: We have three delegates to the AMA to be elected. The present incumbents are Dr. W. A. Hyland, of Grand Rapids; Dr. J. S. DeTar, of Milan, and Dr. C. I. Owen of Detroit. Nominations are now in order for delegates to the AMA.

W. C. Beets, M.D.: We in Kent County over a period of many years have learned to admire and respect Dr. William A. Hyland. We think he is doing a very valuable job as delegate to the AMA, and we would like to nominate Dr. Hyland to succeed himself.

R. V. Walker, M.D.: I endorse the nomination and second it. Dr. Hyland is one of our most valuable representatives in the Michigan State Medical Society. I very highly endorse him for this office.

O. K. Engelke, M.D.: I would like to place in nomination, to succeed himself, the name of a gentleman who needs no introduction to this group, one who has been active in his medical society for many years and who is still very active.

He was a member of this House for many years, and eventually served as Speaker of this House. He is a member of The Council of the Michigan State Medical Society. He has been ambassador for American medicine as we know it for many years across the length and breadth of this country. I speak of Dr. J. S. DeTar, of Milan.

R. W. Teed, M.D.: On behalf of the Washtenaw County delegation I second the nomination of Dr. DeTar.

The Speaker: Are there any further nominations?

M. A. Darling, M.D.: I believe it is customary, when a man has served efficiently and tirelessly in a position both as alternate delegate and then as delegate to the American Medical Association, that he be returned to that position.

I take pleasure, on behalf of the Wayne County delegation, in presenting the name of Dr. Clarence I. Owen, of Detroit.

C. K. Hasley, M.D. [Wayne]: I support the nomination of Clarence Owen as delegate to the AMA.

R. F. Fenton, M.D.: I move that nominations be closed and that the three nominees be declared elected unanimously.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

The Speaker: Dr. Hyland, Dr. DeTar and Dr. Owen have been re-elected unanimously as delegates to the AMA. [*Applause*]

XVII—6. ALTERNATE DELEGATES TO AMA

The Speaker: We come now to the election of three alternate delegates to the AMA. Nominations are now in order.

Louis Jaffe, M.D. [Wayne]: On behalf of the Wayne delegation I would like to place in nomination as alternate delegate the name of Dr. Warren W. Babcock, who, as you know, has filled the position for the last several years with distinction. He has earned the respect of his colleagues. Dr. Babcock is a Past President of his County Society and a Trustee, and I am sure his activities both here and on the national level are known to all of you. I know of no one more qualified to carry forward the principles of this Society on the national level than Dr. Warren W. Babcock.

E. F. Lutz, M.D. [Wayne]: I second the nomination and draw your attention to his efficient work here, which will carry over to the floor of the House of Delegates of the AMA.

R. R. Garneau, M.D. [Manistee]: I would like to place in nomination the name of a man who is a Past President, to succeed himself, who has been a tireless worker and a very competent man. Dr. Ed Sladek, of Traverse City.

J. F. Beer, M.D. [St Clair]: I would like to place in nomination the name of a man who has served as alternate delegate and has done a good job. He has been elected Councilor this evening. I would like to nominate Dr. O. J. Johnson, of Bay County.

W. L. Brosius, M.D.: I would like to place in nomination the name of a man who is already well known to this House. His name was before the delegates this afternoon in a special resolution. He is Past President of the Wayne County Association and has worked tirelessly. He is well known not only throughout the State but nationally. I nominate Dr. Luther R. Leader.

H. B. Fenech, M.D. [Wayne]: I second the nomination of Dr. Leader.

G. H. Bauer, M.D.: I move that nominations cease.

O. K. Engelke, M.D.: I support the nomination.

[*The motion was put to a vote and was carried unanimously.*]

The Speaker: We have four nominees for alternate delegate to the AMA. There are only three vacancies. If you will use ballot No. 2 in your Handbook, we will ask you to vote.

The tellers, Drs. R. F. Fenton, Strom, Rasmussen and Bielawski will collect the ballots.

[*Voting.*]

The Speaker: The order of sequence concerning the alternate delegates is determined by the number of votes received by each nominee. The highest number of votes designates the No. 1 alternate, the second No. 2, and the third No. 3.

The Speaker: The report of the tellers for alternate delegates is: Dr. Babcock, Dr. Sladek and Dr. Johnson, in that order. This means that these men become Nos. 4, 5 and 6. If you don't know what that means, it means that we already have Nos. 1, 2 and 3. The alternate delegates are elected for a term of two years, so we elect three alternates each year, and the men who were Nos. 4, 5 and 6 last year become Nos. 1, 2 and 3. Next year the ones who are Nos. 4, 5 and 6 this year become Nos. 1, 2 and 3 next year. I hope it is as clear to you as it is to me.

XVII—7. PRESIDENT-ELECT

Nominations are now in order for the office of President-elect.

Charles Sellers, M.D.: I wish to place in nomination for the office of President-elect the name of Dr. Harry B. Zemmer, of Lapeer.

Permit me to say that Dr. Zemmer was born at Columbiaville, Michigan, in 1895. He graduated from Wayne State University College of Medicine in 1920. He has been a member of the Michigan State Medical Society since 1920.

Dr. Zemmer started practice in Mayville, but soon moved to Lapeer, where he has remained continuously since 1924 engaged in general surgery and some general practice.

He is a former delegate from Lapeer County to this House of Delegates. He is a former President of the Lapeer County Medical Society, having filled that office several times. He is a former Chairman of the State Mental Health Commission and President of the Michigan Health Council, and was Chairman of Michigan's first Rural Health Conference at Lansing.

Dr. Zemmer is a member and has been Vice Chairman of The Council of the Michigan State Medical Society, where he has served faithfully according to the testimony of other Councilors.

Participation in civic responsibilities is an important duty of practicing physicians, and Dr. Zemmer has been very active. He is a Director and former President of the Lapeer State Savings Bank during the past thirty years. He is a member and former President of the Lapeer Chamber of Commerce, a member of the School Board, a former President of the Rotary Club, and a member of the Farm Bureau. Dr. Zemmer owns a 360-acre farm located about ten miles from Lapeer, where he now lives.

Just a personal note: I have known Dr. Harry B. Zemmer since medical college days, which covers more years than either of us care to admit. I recommend him into the members of the House of Delegates as a physician and a gentleman who would be a capable President-elect and, in due time, be a credit to us as President of the Michigan State Medical Society.

A. B. Gwinn, M.D. [Barry]: I second the nomination of Harry Zemmer for President-elect of this Society.

C. I. Owen, M.D.: It is a great pleasure for me to second the nomination of Dr. Zemmer, a classmate of mine.

C. W. Oakes, M.D.: I take great pleasure in seconding the nomination of Dr. Zemmer for President-elect.

The Speaker: Are there further nominations?

J. R. Rodger, M.D.: The man whom I am going to place in nomination has been a member of this House of Delegates. He has been a member of The Council of the Michigan State Medical Society for seven years, five of those seven having been spent on the Executive Committee of The Council. If he were elected to this position he would, of course, resign as a member of The Council.

I am very happy to place in nomination my friend and the friend of all of us in this room, Dr. G. B. Saltonstall of Charlevoix.

D. G. Pike, M.D. [Grand-Traverse-Leelanau-Benzie]: I would like to have the honor of seconding the nomination of Gilbert Saltonstall for the office of President-elect.

O. J. Johnson, M.D.: I support the nomination of Dr. Saltonstall.

F. L. Troost, M.D.: I also second the nomination of Dr. Saltonstall.

The Speaker: Are there further nominations?

R. W. Teed, M.D.: I move that nominations be closed.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

The Speaker: Will you use ballot No. 3 in your Handbook? Will the tellers please collect the ballots and proceed to count them and then report?

[*Voting.*]

The Speaker: The Speaker announces the election of Dr. Saltonstall as President-elect. Will someone conduct Dr. Saltonstall to the rostrum?

G. B. Saltonstall, M.D. [Charlexoix]: I am a little overwhelmed and very humble in accepting this signal honor that you have awarded me. I am sure I shall need all of your help in carrying on the duties of this office, and I assure you that I shall serve you all to the very best of my ability.

XVII—2. COUNCILOR FOR THE NINTH DISTRICT

The Speaker: I am not quite sure of the procedure. Dr. Saltonstall, do you wish to resign as Councilor, or shall I declare your office vacant? I wonder if the the Ninth District wishes to have a caucus or is prepared to present another nomination for Councilor of the Ninth District.

J. R. Rodger, M.D.: I should like to present the name of a man who has been a member of this House for eight years, and a member of many important reference committees of this House, whom we in the Ninth District would be very proud to have represent us. I nominate Dr. Donald Pike, of Traverse City.

K. T. McGunegle, M.D.: I support the nomination of Dr. Pike.

The Speaker: Are there further nominations?

R. R. Garneau, M.D.: I move that nominations be closed and that the Secretary cast the unanimous ballot for Dr. Pike.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

The Speaker: Dr. Pike is declared elected.

Nominations are now in order for Speaker of the House of Delegates.

XVII—8. SPEAKER OF THE HOUSE OF DELEGATES

[*The Vice Speaker assumed the Chair.*]

L. A. Drolett, M.D.: Gentlemen, I think this young fellow has done a pretty good job up here for a year [*applause*], and I think he well deserves to be returned to office. He has done a marvelous job in conducting the business of this House of Delegates, and once again I would like to nominate Dr. Kenneth H. Johnson to succeed himself as Speaker of the House.

J. M. Wellman, M.D.: I second the nomination of Dr. Johnson as Speaker. He is a very close personal friend of mine, and a moderately good poker player. [*Laughter*]

J. E. Livesay, M.D.: I second the nomination of Dr. Johnson, and at the same time move that nominations be closed and that the Secretary cast the unanimous ballot for Dr. Johnson.

W. L. Brosius, M.D.: I second that motion.

[*The motion was put to a vote and was carried unanimously.*]

[*The Speaker resumed the Chair.*]

XVII—9. VICE SPEAKER OF THE HOUSE OF DELEGATES

The Speaker: Nominations are now in order for Vice Speaker of the House of Delegates.

J. B. Blodgett, M.D.: On behalf of the Wayne delegation I should like to nominate as Vice Speaker of the House of Delegates the capable incumbent, J. J. Lightbody.

E. H. Fenton, M.D.: It gives me extreme pleasure to second the name of Dr. Lightbody. He has done a fine job this year, and I am sure we are all very pleased. [*Applause*]

W. S. Jones, M.D.: I move that nominations be closed and that Dr. Lightbody be re-elected Vice Speaker and Parliamentarian by acclamation. [*Applause*]

The Speaker: That acclamation will record the vote as a complete "Yes." Congratulations, Dr. Lightbody.

I would simply like to say that I appreciate very much all the kind words that have been said to me. It is very obvious that no Speaker can possibly do a good job without a great deal of help, and I certainly feel I have had it during this session.

I know Jim has done an excellent job in helping me and everyone else. Jim, would you like to say something?

The Vice Speaker: It has been an interesting experience for me. I have had a little experience before, but this has been sort of a rough initiation. The delegates have been very kind to both Dr. Johnson and myself at this session. We haven't run into a great

number of parliamentary difficulties, but of course the evening is not over.

I want to thank you very much for this honor, and I hope we shall continue to be friends. Thank you.

THE SPEAKER: We shall now return to the regular order of business. The last information I had from Dr. Lichter was that he would not be ready before eleven o'clock tonight.

R. W. TEED, M.D.: I move that we adjourn until eight o'clock tomorrow morning.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

[*The meeting was adjourned at 10:15 p.m.*]

WEDNESDAY MORNING SESSION
September 25, 1957

The final session convened at 8:40 a.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

M. L. LICHTER, M.D.: At this time I should like to thank those members of the House who assisted the Reference Committee in its deliberations and in enabling it to arrive at a conclusion which the Reference Committee feels represents the thinking of this House. Everyone was kind to us, patient with us, and most helpful.

As Chairman of this Reference Committee, I must pay the highest tribute to the members of the subcommittee, who gave up just about everything in order to assist in this task which is to be presented to you this morning.

I would like to say that all matters to be presented this morning by this Reference Committee have the unanimous consent and agreement of the members of that Committee: Laurence S. Fallis, M.D., H. C. Hill, M.D., R. L. Novy, M.D., D. G. Pike, M.D., Sydney Scher, M.D., and W. F. Strong, M.D.

It has been a great personal pleasure to have worked with these men, and I can't express myself too strongly and sincerely in that regard.

We have a number of resolutions that we would like to present to the House before the presentation of the report of the Reference Committee on Michigan Medical Service, which resolutions were sent to us as a supplemental report of The Council.

XVI—11(e). FROM APRIL, 1957, HOUSE OF DELEGATES SESSION: RECOGNITION OF INTERNISTS

[*Dr. Lichter read resolution No. 23.*]

"Whereas, this House of Delegates, as representatives of the medical profession in Michigan, is dedicated to promote higher standards of medical service, and

"Whereas, the maintenance of high standards of medical care often includes the services of the internist, and

"Whereas, this House of Delegates is anxious to maintain unity of the medical profession in Michigan in order to further favorable solution of the economic problems of medical care; therefore, be it

"RESOLVED: That the House of Delegates recognizes the internist as a medical specialist whose special training, skills and detailed investigation and service rendered the patient entitles him to compensation commensurate with such service both as an attending physician or consultant."

M. L. LICHTER, M.D.: We believe that ample opportunity was given all the proponents of this resolution to be heard.

The Reference Committee makes the following recommendation: To the knowledge of the Reference Committee, there is no established official policy regarding special recognition of any specialty group. Therefore, it is recommended that this resolution be **disapproved.**

Mr. Speaker, I move the adoption of this recommendation.

J. M. WELLMAN, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—11(f). RE FREE CHOICE OF PHYSICIAN IN ALL MEDICAL SERVICE PLANS

[*Dr. Lichter read resolution No. 4.*]

M. L. LICHTER, M.D. [continuing]: This resolution was carefully considered by the Reference Committee, and they make the following recommendation: The Reference Committee recommends no action on this resolution at this time.

Mr. Speaker, I move the adoption of this recommendation.

R. W. TEED, M.D.: I support the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—11(g). RE MERGER OF BLUE SHIELD-BLUE CROSS

[*Dr. Lichter read resolution No. 10.*]

M. L. LICHTER, M.D. [*continuing*]: The Reference Committee recommends **disapproval** of this resolution, and I so move.

J. B. BLODGETT, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—11(h). RE SEPARATION OF BLUE CROSS-BLUE SHIELD

M. L. LICHTER, M.D.: Now to the next resolution. After careful consideration of this resolution, the Reference Committee recommends its **disapproval**, and I so move.

V. M. ZERBI, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—11(i). FROM APRIL, 1957, HOUSE OF DELEGATES SESSION: RE TO CHANGE MHS-MMS INTO INDEMNITY PLANS

[*Dr. Lichter read resolution No. 24.*]

"RESOLVED: That the Calhoun County Medical Society hereby requests the Michigan State Medical Society to give consideration to the employment of its influence and good offices to effect some or all of the following changes in Michigan Hospital Service-Michigan Medical Service:

"1. Discontinuance of the 'service' concept.
2. Adoption of a deductible hospitalization plan.
3. Adoption of an indemnity fee schedule for physicians' services.
4. Adoption of an indemnity fee schedule for outpatient or office diagnostic x-ray examinations.
5. Payment of surgical indemnity fees regardless of where the surgery is performed."

M. L. LICHTER, M.D. [*continuing*]: The recommendation of the Reference Committee is: This resolution is disapproved because it is at variance with the report of the Committee to Study Comprehensive Prepaid Insurance Plans and the Opinion Survey, and our recommendation concerning the report of the Committee on Michigan Medical Service.

I move adoption of the recommendation to **disapprove.**

W. C. BEETS, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—11(m). COMPREHENSIVE MEDICAL SERVICE PLAN

[*Dr. Lichter read resolution No. 21.*]

M. L. LICHTER, M.D.: The Reference Committee recommends *no action* on this resolution, because most

of the resolution was covered by the report of the Committee to Study Comprehensive Prepaid Insurance Plans.

I so move, Mr. Speaker.

R. W. Teed, M.D.: Support.

[*The motion was put to a vote and was carried unanimously.*]

XVI—11(j). FROM APRIL, 1957, HOUSE OF DELEGATES SESSION: LIMIT BS CONTRACTS TO THOSE WITH SPECIFIED INCOME LIMITS

[*Dr. Lichter read resolution No. 20.*]

"Whereas, considerable confusion exists in the minds of the public in regard to income limits of their policies, and

"Whereas, fee schedules as set up in specific contracts tend to be accepted by the patient as usual fees for the various procedures, and

"Whereas, poor public relations may result when fees in excess of their Blue Shield contracts are charged; therefore, be it

"RESOLVED: That the Board of Directors of Michigan Medical Service be encouraged to initiate a plan as rapidly as possible by which Blue Shield contracts are limited to those individuals whose family income falls within the income limits of their policies; and be it further

"RESOLVED: That the corporate body of Michigan Medical Service go on record as favoring the discontinuance of the present $2,500 policy, and a new contract for all incomes above $5,000 be formulated."

M. L. Lichter, M.D. [*continuing*]: The Reference Committee recommends that this resolution be disapproved because it is at variance with the report of the Committee on Michigan Medical Service, and at marked variance with the result of the Opinion Survey on this topic.

I move acceptance of this recommendation to disapprove.

A. C. Stander, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—11(k). FROM APRIL, 1957, HOUSE OF DELEGATES SESSION: RE INCREASED BENEFITS IN MMS CONTRACTS

[*Dr. Lichter read resolution No. 27.*]

"Whereas, the Committee on Prepaid Medical Care Plans of the Wayne County Medical Society has studied extensively the various methods of prepaid medical care available in the United States, and

"Whereas, it is the opinion of the Committee that a medical society may logically sponsor only a service type plan, and

"Whereas, the Committee has concluded that the general public desires wider benefits in a prepaid plan than are now available in Michigan Medical Service, and

"Whereas, an essential feature in such a plan should be a mutual sense of responsibility on the part of the physician and on the part of the patient, and

"Whereas, the traditional right of the patient to choose his own physician must be preserved; therefore, be it

"RESOLVED: That Michigan Medical Service be respectfully requested after a thorough study of actuarial factors to devise a contract providing increased benefits patterned on the General Electric Plan; and be it further

"RESOLVED: That this contract embody extensive diagnostic and therapeutic benefits to the subscriber in the hospital, office and home; provide for both an initial deductible feature and a co-insurance plan for more extended and expensive illness; and pay the physician without a fixed schedule his usual fee for a given service; and be it further

"RESOLVED: That this House of Delegates favors continuation of policies now being offered by Michigan Medical Service."

M. L. Lichter, *M.D.* [*continuing*]: Your Reference Committee recommends that this resolution be *referred to the Board of Directors of Michigan Medical Service* for its consideration and utilization of such features of the resolution as may be desirable.

I so move, Mr. Speaker.

F. P. Rhoades, M.D.: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XVI—10(a). REPORTS OF THE COUNCIL (CONTINUED)

M. L. Lichter, M.D.: This is the report of the Council on which your Reference Committee spent many, many hours. Most of the members of the Committee have had between thirty minutes and one hour's sleep last night.

The report of the Committee on Michigan Medical Service, which is part of the supplemental report of The Council, is divided into four parts. The four parts are the general considerations; commitments by the Michigan State Medical Society; principles to be embodied in insurance contracts, and basis of service benefits.

As this report is presented I believe it should be kept firmly in mind that this is a basic set of principles. There may be detailed points absent, but the framework of the development of the detail is definitely present in the report.

The report was amended in some respects by the Reference Committee. I am not going to read the report as it was submitted to us by the Speaker, but I am going to read the report as it has been amended by the Reference Committee. I will be prepared, if it is considered necessary, to point out the various areas in which amendments were made.

A. GENERAL CONSIDERATIONS

The Michigan State Medical Society has made an intensive study of the development and the operation of the many means currently employed both in Michigan and elsewhere to insure against or to prepay the costs of medical care. The conclusions resulting from that study are set forth below and are based upon the following fundamental considerations:

1. The people of Michigan are entitled to and should have health care which meets the highest standards attainable.

2. Means should be generally available in Michigan which will permit the financing of the costs of necessary medical services and supplies to the greatest extent possible and practicable through prepayment.

3. To whatever extent the cost of a particular medical service is not covered by prepayment, such uncovered amount shall be predictable, be known to the patient in advance, and be within his ability to budget for out of income.

The foregoing can be accomplished only if those responsible for rendering the necessary medical services, namely, the physicians of Michigan, assume the further responsibility of establishing within the profession a structure around which sound insurance or prepayment plans can be built and also a system by which the profession can assure itself, the prepayment plan subscribers and the underwriters, that the structure is functioning in accordance with its commitments.

B. COMMITMENTS BY THE MICHIGAN STATE MEDICAL SOCIETY

In light of the foregoing, the Michigan State Medical Society undertakes the following commitments:

1. Any contract offered by an insurance carrier or prepayment plan organization which embodies the principles set forth in Section C herein shall receive the endorsement of the Society, provided the carrier issuing this contract shall stipulate it will not offer any pre-

paid medical care contract which is preferential or discriminatory in its rating. This endorsement shall remain in effect as long as the carrier continues to make such contracts available and keeps the stipulation in effect.

2. It being the objective of the medical profession to make certain that voluntary health protection be available to all self-sustaining people at reasonable cost, the endorsement of the Michigan State Medical Society will be given only if rates charged by the insurance or prepayment carrier are fair and equitable and nondiscriminatory.

3. The Society will use its best efforts to secure the participation of its members in all contracts endorsed by the Society.

4. A subscriber rendered care by a participating physician will receive "service benefits" as provided in his contract. The basis is set forth in Section D below.

5. The Council of the Michigan State Medical Society will appoint a Medical Care Insurance Committee having the following functions:

(a) To examine all contracts submitted for endorsement. A report will be sent to The Council which will have the authority to issue a certificate of endorsement on behalf of the Society.

(b) To co-operate with the Permanent Advisory Committee on Fees of the House of Delegates concerning the Relative Value Scale and applicable unit values.

(c) To develop review procedures for any matters concerning the subscriber, the physician, the insurance carrier and others.

(d) To develop review committees in each of the Councilor Districts of the Society, nominated locally, which shall be appointed by The Council of the Michigan State Medical Society. These shall function under the direction of the Medical Care Insurance Committee, which will also serve as a unit to which appeal can be made from decisions of the review committee(s).

(e) To make such interpretations of the language herein as may be required in connection with the endorsement of contracts.

6. Amendments to or interpretations of the language herein as may be made by The Council of the Michigan State Medical Society during the interim between meetings of the House of Delegates of the Michigan State Medical Society.

7. The Michigan State Medical Society, sponsor of Michigan Medical Service, will urge Michigan Medical Service to make available to any qualified group or individual protection in accordance with the principles herein set forth at fair and equitable rates, and pledges its support in such an endeaver.

C. PRINCIPLES TO BE EMBODIED IN INSURANCE CONTRACTS

1. There must be complete freedom of choice of physician by the patient. Nothing in any contract will imply any restriction of this principle.

2. All benefits will be on a service basis consistent with the principles set forth in Section D, except when a subscriber voluntarily occupies a private room in a hospital.

3. The following services must be included in any basic program:

(a) Surgical procedures wherever performed.

(b) Medical services when the patient is confined to a hospital.

(c) Consultation service in the hospital; surgical assistants where required.

(d) Obstetrical services for the actual procedure in normal delivery, Caesarean section or abortion and complications of pregnancy, but not to include routine prenatal and post-natal care. Optional supplemental insurance by the carrier to cover all obstetrical costs may be offered as provided in No. 4 below.

(e) Anesthesia by a physician not an employe of a hospital.

(f) Diagnostic laboratory procedures shall be provided in the outpatient department of a hospital, a private laboratory, in the physician's office. (Screening procedures are excluded.)

(g) Diagnostic and therapeutic radiologic procedures shall be provided in the hospital, the outpatient department, or in the physician's office.

4. At the option of the carrier, additional coverage may be provided for other medical services and supplies such as:

(a) Home and office calls.

(b) Benefits for prescriptions filled by a registered pharmacist.

(c) The furnishing of prosthetic devices.

(d) Physiotherapy in the outpatient department or the physician's office.

(e) Other services which may be required in the treatment of the patient.

5.(a) For any necessary service other than in-hospital medical care, surgical care, obstetrical care and anesthesia, the subscriber shall have, at the time of utilization, a degree of financial participation in, and responsibility for, medical fees in addition to his premium. This shall be determined by the carrier, but the responsibility of the patient shall be not less than 10 per cent or $5, whichever is more, but not in excess of the scheduled fee allowance. In accordance with the terms of the contract, this amount shall become the obligation of the patient to the physician at the time of service and will be subtracted by the carrier from the payment for service it shall make to the physician. For any calendar year, however, patient participation shall not exceed the following:

Contract for Which Eligible	*Limit of Patient Participation Per Year*
A	$25
B	50
C	75

(b) While the provisions of "a" above are strongly urged by the Michigan State Medical Society, any carrier may have the option to waive the provision of "a" by a rider to provide for coverage without subscriber contribution.

6. There shall be three contracts to be known as plans A, B, C. Each of these contracts shall apply to a specific income level and will provide service benefits. The income level shall be determined by a projection of the current rate of earnings of the basic wage earner in the family and not by family income.

Where the basic income is not readily determined and established (such as self-employed, farmers, salesmen on commission) the Committee on Medical Care Insurance of the Michigan State Medical Society shall develop appropriate criteria for determining eligibility for service benefits.

Plan A will provide full service benefits to all subscribers whose basic income is less than $2,500.

Plan B will provide full service benefits for those subscribers whose basic income is $2,500 but less than $5,000.

Plan C will provide full service benefits for those subscribers whose basic income is $5,000 but less than $7,500.

Those subscribers whose income is in excess of $7,500 may purchase only *Plan C*. In this event the total fee shall be the result of agreement between the patient and his physician. The Plan will pay the applicable and "Dollar Allowance" to the physician.

7. The insurance carrier shall be responsible for classification of subscribers and appropriate designation of the Plan in which they must be enrolled. Income designation shall reflect the subscriber's current rate of pay, projected on an annual basis. This designation shall be reviewed annually and changed as indicated by the review.

D. BASIS OF SERVICE BENEFITS

1. The Michigan State Medical Society will develop a "Relative Value Scale" which will assign to the individual surgical, obstetrical and other medical services a value in units proportional to the relative value of that service. The Society will determine the applicable value of one unit for each class of benefit. By multiplying the number of units assigned to a procedure by the value of one unit, the "Dollar Allowance" for that procedure is obtained.

2.(a) The Michigan State Medical Society will establish unit values for medical, surgical and obstetrical procedures and anesthesia for each of the Plans.

(b) For diagnostic laboratory procedures and for all radiologic procedures, the unit value will be the same for all Plans.

(c) For any optional benefits offered by a carrier, the Society will establish appropriate unit values.

3. Until the Michigan State Medical Society establishes a "Relative Value Scale," the scale developed by the California Medical Association shall be used.

4. No participating physician may charge more for a particular service rendered a subscriber than the "Dollar Allowance" payable for that service under the subscriber's contract. A subscriber covered by Plan C, whose income is designated as in excess of $7,500, however, shall be responsible for any part of fees to which he agrees with his physician in excess of the applicable "Dollar Allowance."

Mr. Speaker, I have an explanatory note which is not part of this report, which I would like to present and perhaps interpolate at this moment.

The Reference Committee discussed and considered the possible inclusion of coverage for in-hospital diagnostic laboratory procedures under Section C, paragraph 3(F). It was agreed that when the method of payment to the pathologist for services rendered in the hospital shall be clarified, as embodied in the resolutions adopted by the House of Delegates at this session, then such coverage would be included in medical coverage contracts.

I would like, if I may, to go over some of the items in this report and relate them to the Opinion Survey which was completed by this Society and presented on Monday. I think it is important to know whether, based upon this Survey, we are accomplishing the things demonstrated by the Survey.

The first is on page C-16-23-25-28 and deals with "All benefits will be on a service basis." I would like to ask Mr. Brenneman if he will give the figures in the Survey applicable to this point.

MR. BRENNEMAN: The question asked was, "Do you believe that Michigan Medical Service should be a service company or an indemnity company?" The total responses to that question were 2,487, or 100 per cent, with 41 per cent or 1,022 favoring a service company. An indemnity company was favored by only 15.7 per cent or 391. "No opinion," 43.2 per cent.

M. L. LICHTER, M.D.: Are there any other figures applicable to that?

MR. BRENNEMAN: There was another question immediately following that: "Do you believe Michigan Medical Service's medical service principle should be available only to low income groups (Under $5,000 income)?" The total responses at 100 per cent were 2,576: 83.1 per cent said "No"; 16.9 per cent said "Yes." In other words, very definitely they were opposed to limiting it to the under $5,000 income group.

M. L. LICHTER, M.D.: Under the services which are included, on page C-18, C-26 and C-18.

MR. BRENNEMAN: "Do you believe that benefits for medical consultations should be covered in Michigan Medical Service contracts?" The total response was 2,592. Those favoring it, saying "Yes," were 74.1 per cent. "No," 25 per cent.

Among the generalists versus the specialists, the generalists favored it by 67 per cent and the specialists by 77 per cent.

M. L. LICHTER, M.D.: And now the information in the Survey report concerning the deductible, A-25 and C-21.

MR. BRENNEMAN: I will give you the C-21 first. This is the Doctor Opinion Survey: "Should separate contracts be offered by Michigan Medical Service in addition to full pay policies, to permit the subscriber to buy co-insurance policy?" Total response, 2,410. "Yes," 82.2 per cent. "No," 17.8 per cent.

M. L. LICHTER, M.D.: Do you have the consumer attitude on that?

MR. BRENNEMAN: "In order to reduce the monthly cost of medical-surgical insurance, would you favor paying a deductible amount of the expense per each illness or disability?" The total answers were 1,000, because this was the Interview Survey. "Yes," 47 per cent. "No," 53 per cent. That was in the total mentioned. Then it was developed by the different types of plans due to membership income group, employer pays, and so on.

M. L. LICHTER, M.D.: The last thing deals with the income levels. That is at the bottom of pages C-16, C-22, C-23, C-24 and C-25.

MR. BRENNEMAN: The question was, "Do you believe Michigan Medical Service's principle should be available only to low income groups?" I have already read that one.

I think the next one is C-21 and C-22. "At present, participating doctors accept the Michigan Medical Service fee schedule as full payment for those subscribers under $5,000 income who hold such contracts. Because of present economic conditions, how do you believe this income limit should be changed?"

The total response was 2,443. The answers were as follows: "Raised with higher fee schedule," 1,456 or 59.6 per cent. "Remain unchanged," 773 or 31.6 per cent. "Raised with same fee schedule," 166 or 6.8 per cent. "Lowered with lower fee schedule," 48 or 2.0 per cent.

"Presupposing that appropriate fee schedules could be worked out, what would you recommend as income limits in the service contracts of Michigan Medical Service?"

Total responses were 2,312, making it 100 per cent. $2,500: 6.7 per cent. $5,000: 18.6 per cent. $7,500: 19 per cent. All three above 790 or 34..2 per cent. $10,000: 15 per cent. Others, 6.4 per cent.

"Would you favor placing the income limit in a new Michigan Medical Service contract at $7,500 if the present $5,000 income limit fee schedule were raised by 32 per cent?" The answers: "Yes," 68.1 per cent. "No," 31.9 per cent.

"Some persons, such as clerks in stores, farmers, part-time help, etc., earn less than $2,500 annually. Do you believe that the $2,500 income limit contract should be eliminated?" Answers: "No," 70 per cent. "Yes," 29.8 per cent.

"Do you believe the $2,500 income limit contract should be continued as an indemnity contract to serve as basic coverage for those with larger incomes?" Answers: "Yes," 44 per cent. "No," 55 per cent.

M. L. LICHTER, M.D.: Thank you, Mr. Brenneman.

I didn't intend doing this to bore you; the intent rather was to demonstrate that the report just given you has met some of the wishes expressed by physicians and expressed by the consumer or patients, as developed in the Opinion Survey.

I feel that the Opinion Survey is a very valuable document which should be used very frequently, and

certainly as a guide in establishing medical benefits for the people of Michigan.

I move the adoption of this report as amended. [*Applause*]

C. W. Oakes, M.D.: I second the motion.

W. W. Babcock, M.D.: First I must apologize for not being at any of Dr. Lichter's Reference Committee meetings, because I had committed myself to others.

As I carefully listened to the report I had the impression that the Michigan State Medical Society is setting itself up as an approval agency for insurance carriers other than Blue Shield. If this is not so, I would like to know it. If it is so, then I want to know this: Have you had competent legal advice?

The Speaker: The question has to do with the idea as to whether or not you secured legal opinion in relation to this portion of your report concerning itself with approval of other carriers than Blue Shield.

M. L. Lichter, M.D.: First, I would like to state that this proposal does contemplate endorsing plans of insurance carriers other than Blue Shield under certain very strictly fine conditions. However, we are not endorsing a company. We are endorsing a plan which coincides with the principles that we have developed.

It is covered again in Section D, which in effect says that nobody is going to set the fee levels for doctors in Michigan but doctors in Michigan.

Does that answer your question, sir? Thank you.

[*The motion was put to a vote and was carried unanimously.*] [*Applause*]

President Walls: Mr. Speaker, I would like to ask for the privilege of the floor.

As your President for ten more hours, I would like to take this opportunity to express my personal appreciation and that of the State Medical Society for the tremendous job that this Reference Committee and everyone concerned has done in helping to bring this to such a fine conclusion.

This is very touching for me because it is one of the best highlights of my year's work. They have brought it to a splendid conclusion. I am sure there will be a lot more wrinkles to be ironed out, but I certainly appreciate the tremendous amount of work that has been done on this particular project. Thank you very much. [*Applause*]

W. W. Babcock, M.D.: I would like to add to Dr. Walls' remarks to this extent: I feel that history has been made at this session, and I would like to see the pictures of the Reference Committee and a human interest story published for the membership of MSMS in The Journal. [*Applause*]

G. W. Slagle, M.D.: Mr. Speaker, may I ask for the privilege of the floor?

This House is to be commended on its action. In monumental things of this type unfortunately sometimes it becomes misnamed, such as calling this the "Slagle report." I want to assure you that the report of the Committee was the result of many, many minds. Many more people beside our good friends on the Committee worked on this. We sought advice from all sources. Credit should go to everyone, and I am sure it does.

I want to thank the Reference Committee for the dispatch with which they have handled the situation. Everyone had a chance to express opinions. The Reference Committee has done a Herculean task, and I believe the results will be tremendous. It is truly an epochal thing, and I want to thank the Society and this House of Delegates for approving it the way they have. Thank you very much. [*Applause*].

The Speaker: We have one more item of business that must be disposed of.

XVI—11(1). MSMS ADVISORY COMMITTEE TO MMS

M. L. Lichter, M.D.: Mr. Speaker, we have one more resolution. I shall not read the original resolution.

The Reference Committee offers a substitute resolution No. 36 as follows:

"Whereas, a vast amount of information and knowledge on prepaid medical care has been acquired by various committees of MSMS and the Opinion Survey, and

"Whereas, this information will influence the extent of coverage to be offered, and

"Whereas, the members of this House of Delegates will not have had sufficient time during this session to digest the information gathered; therefore, be it

"RESOLVED: That all information on prepaid medical care collected by said committees and Survey be transmitted to the Board of Directors of Michigan Medical Service, urging the development and offering of contracts which will include desired medical care benefits as indicated by the information obtained in these studies; and be it further

"RESOLVED: That the Committee on Michigan Medical Service of the Michigan State Medical Society be utilized in an advisory capacity to Michigan Medical Service to implement this resolution."

The action of the House today has made this unnecessary.

I move, by authority of the Reference Committee, that no action be taken on this resolution.

R. W. Teed, M.D.: I support the motion.

[*The motion was put to a vote and was carried unanimously.*]

M. L. Lichter, M.D.: I move the approval of the report of the Reference Committee on Medical Service and Prepayment Insurance as a whole, as amended.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XVIII. ADJOURNMENT

The Speaker: Gentlemen, I cannot tell you how grateful I am (and I am sure I speak for the Vice Speaker also) for the very business-like way in which you have conducted this entire session. I have never heard a session composed of men who are professional individualists, who have settled down and have let personalities go by the wayside, and who have tackled the business at hand and worked it out as well as you have done. I thank each and every one of you.

This session of the 92nd annual meeting of the House of Delegates of the Michigan State Medical Society is now declared adjourned.

[*The meeting adjourned sine die at 10:15 a.m.*]

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Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

DEPARTMENT POLICY IN TUBERCULOSIS CASEFINDING

Within recent months, there have been several reports in the press and on radio and television which have raised some questions regarding possible health hazards associated with community-wide mass x-ray programs for the detection of previously unsuspected tuberculosis and other chest diseases. These reports have apparently caused apprehension among certain people as to the safety of such procedures. A brief review of the pertinent facts may help to clarify this situation.

Beginning in June, 1956, the National Academy of Sciences, National Research Council issued a series of reports dealing with the effects of x-radiation on the human body. These reports on the effects of x-radiation stimulated a great deal of discussion and caused all concerned with the problem to reconsider and re-evaluate programs based upon the use of x-radiation in all its forms.

Briefly, these reports served to point up the well known fact that the effect of ionizing radiation on living tissue is to injure or destroy cells. Even the therapeutic use of x-rays is based on the ability of radiation to injure or destroy unwanted cells, such as malignant cells. Furthermore, the ability of radiation to injure is cumulative; each exposure to radiation adds to the over-all destructive effect. Thus, it seems reasonable to regard all exposure as a loss to health unless the benefit warrants the risk.

The impact of these reports on those engaged in mass chest x-ray programs was, perhaps, especially notable, since the screening x-ray examination of the lungs has been for many years one of the most important and dependable tools of the public health worker in early diagnosis of tuberculosis which, despite tremendous developments in treatment, remains a major public health problem. Health agencies are charged with the responsibility of protecting health. This clearly involves protecting the public against unnecessary exposure to x-radiation. It also involves protecting the public against unnecessary exposure to persons with active tuberculosis. The choice of action, then, must be determined by weighing the benefits to be derived from x-ray screening procedures against the liability of harmful effects from radiation.

The policy of the Michigan Department of Health is, as always, to protect all persons against unnecessary exposure. The screening x-ray, accordingly, is used only on a restricted basis and only when maximum safeguards are observed. The risks involved in such screening programs conducted under the auspices of the state and local health departments are insignificant when compared to the great benefits to be derived.

The Michigan Department of Health will therefore continue, as it has for several years, to restrict the use of the chest x-ray screening technique to adults in relatively high tuberuclosis incidence areas or groups. These include population segments where the incidence of tuberculosis is high, occupational groups where there are greater risks; age groups where the incidence is high; i.e., men over forty-five and young and middle aged women. In addition, the Michigan Department of Health encourages casefinding in schools and in those areas with low or average incidence by means of the tuberculin test, followed by x-raying of reactors, and contact tracing. Along with this, the health department continues to encourage the use of general hospital admission x-rays, because these provide a much higher yield of new cases of tuberculosis than x-rays of the general population.

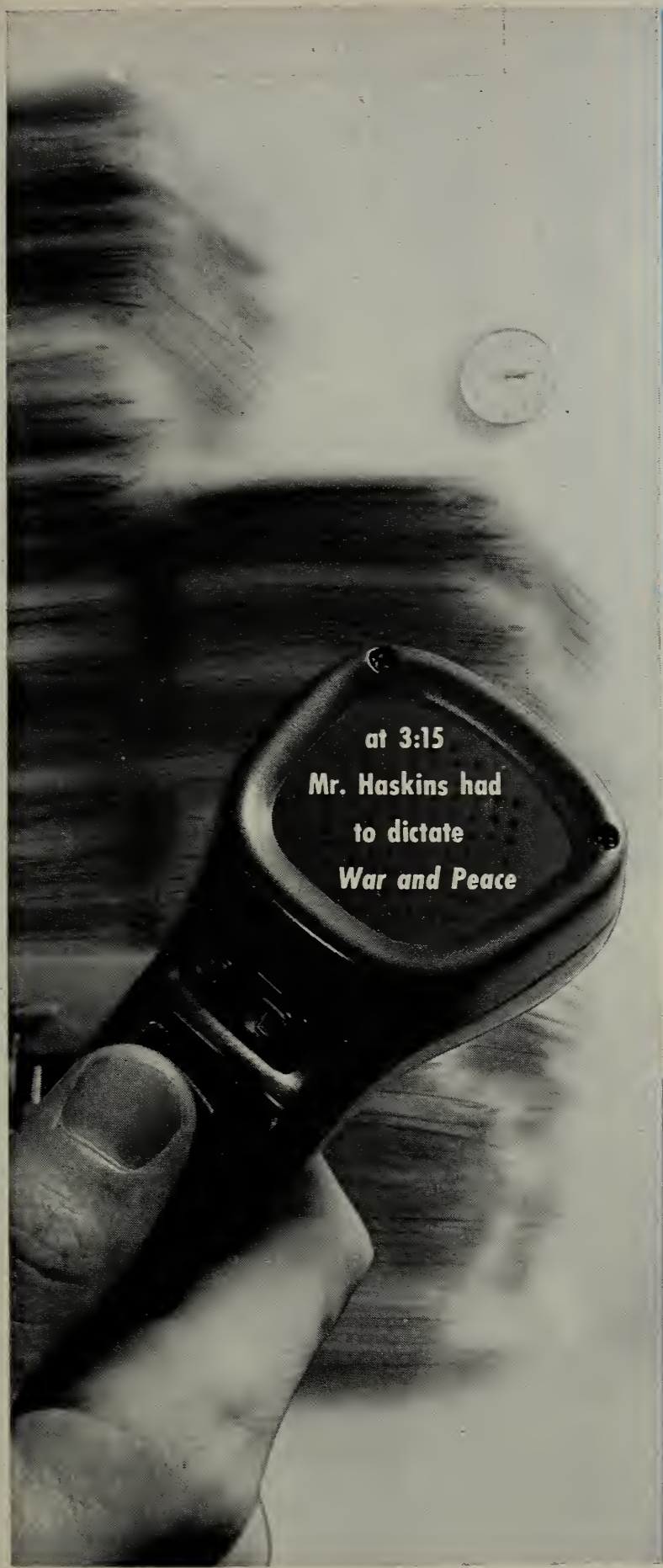
In summary, these are the principles that guide the policy of the Michigan Department of Health, as it bears upon tuberculosis casefinding activities:

1. The chest x-ray survey is a basic part of the program for early detection of tuberculosis and non-tuberculous chest diseases. It has been proven to be most effective when the population groups surveyed have been selected on a basis of th prevalence of disease. If these principles of survey operation are observed, the benefits to be derived far out-weigh the potential risks of radiation. Failure to take prevalence into consideration not only results in a low return in terms of new cases found, but also exposes persons to unnecessary radiation.

2. Since tuberculosis is relatively infrequent in persons under the age of eighteen years, it is recommended that this age-group be screened by means of the tuberculin test and only the reactors examined by x-ray. Experience has shown that tuberculin testing is an effective method of screening school children.

3. Periodic checks of the operating x-ray survey equipment should be made to assure protection from unnecessary radiation.

4. Continuing evaluation of mass x-ray surveying as a tuberculosis casefinding method will be made by the Michigan Department of Health.



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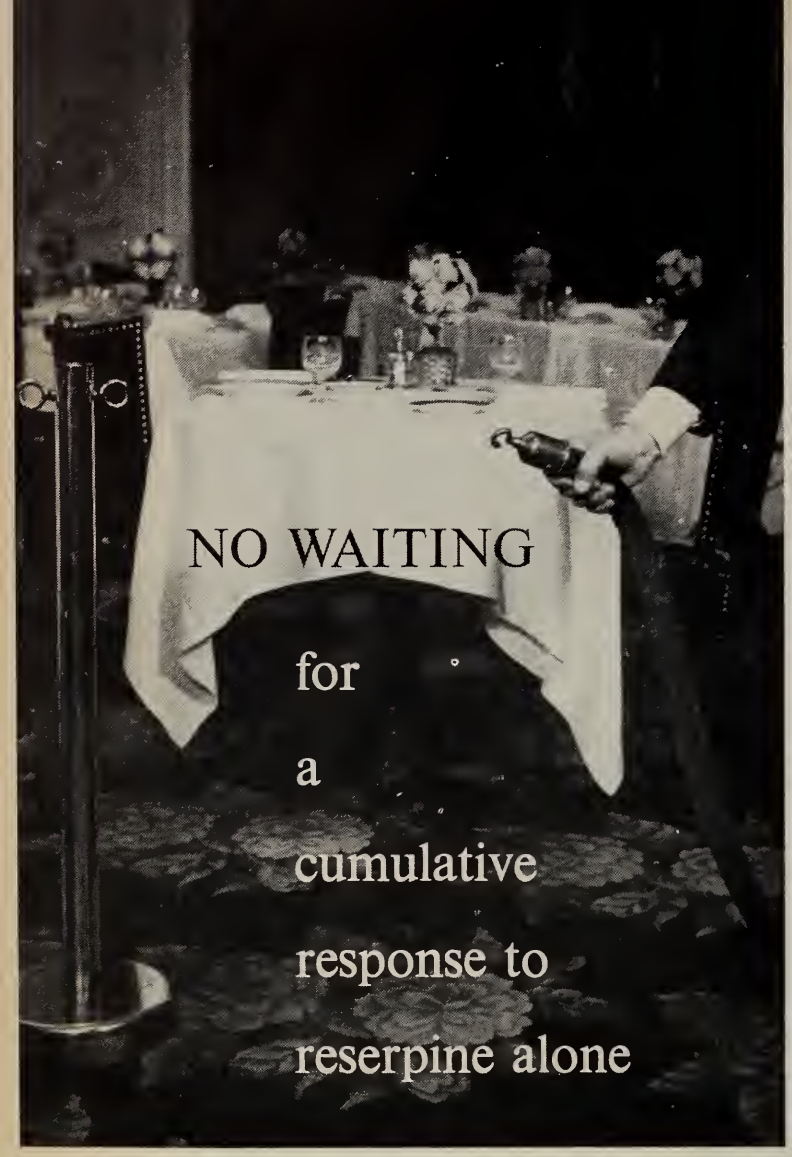
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In Memoriam

John J. Blue, M.D., sixty-six, Cedarville physician and surgeon, died October 23, 1957. Doctor Blue was born in Columbiaville, Michigan, was a graduate of the Detroit College of Medicine in 1917 and served four years in the Navy as a surgeon. Doctor Blue practiced medicine at Chesaning and Owosso, Michigan, and in Fostoria, Ohio, before starting his practice in Cedarville in 1949. Doctor Blue moved to Cedarville in the Upper Peninsula with the thought of retiring, but he resumed practice to fill a community need.

Herbert L. Goodman, M.D., thirty-eight, Detroit physician, collapsed and died of a heart attack while in his office on the afternoon of November 15, 1957. Doctor Goodman was medical director of Wayne County General Hospital and was Assistant Professor of Clinical Medicine at Wayne State University College of Medicine. A graduate of Wayne in 1945, he specialized in hematology and cardiology.

From 1945 until 1955, Doctor Goodman was on the staff of Wayne Medical College and Receiving Hospital. After serving two years with the Army Medical Corps, he was appointed director of Wayne County General hospital in June, 1947.

He was a member of Phi Lambda Kappa and Alpha Omega Alpha, medical fraternities.

John J. Kingma, M.D., fifty-six, Grand Rapids psychiatrist, died October 26, 1957. Doctor Kingma was born in the Netherlands, came to this country at the age of nine, and after living a few years in New Jersey moved to Grand Rapids.

He was a graduate of Calvin College and University of Michigan medical schools. After conducting a medical practice in Decatur for nine years, he took a psychiatric residency in New York City and then joined the staff of the Christian Sanatorium at Wyckoff, New Jersey, where he served for thirteen years before returning to Grand Rapids.

Heinrich Guenther Kobrak, M.D., fifty-two, Detroit physician, died October 9, 1957. He was born in Berlin, Germany, and graduated from the University of Munich, Germany, in 1928. He interned at the Rudolf Virchow Hospital in Berlin in 1929 and did postgraduate work at the University of Basel, Switzerland, in 1929-30 and at the University of Heidelberg in 1931. He then came to the United States and entered the department of physiology at the University of Chicago. He received his Ph.D. degree in Physiology in 1937. After that, he became a fellow and research assistant in the Otolaryngology Division of the Department of Surgery at the University of Chicago and received his M.D. degree there. In 1946, he was made assistant professor and, in 1948, associate professor in that field, all at the University of Chicago.

In 1954, he came to Wayne State University College of Medicine and became Professor of Otology, continuing his research in that field. He wrote many scientific papers relative to hearing mechanisms and to objective hearing tests. The final chapters of his book, "The Middle Ear," had just reached the publisher (University of Chicago Press) before his death.

Doctor Kobrak was much in demand as a professional speaker. Like many European-born scientists, he was an excellent musician and was himself accomplished on the viola.

Charles R. Murray, M.D., fifty-two, Saginaw physician, was killed November 17, 1957, in an automobile accident on route M-18 while returning to Saginaw from a hunting trip.

Doctor Murray was a graduate of Wayne State University Medical College. He interned at Detroit Receiving Hospital and at the time of his death was chief of staff at St. Mary's Hospital.

John M. Salowich, M.D., fifty-six, Detroit physician, died November 13, 1957, while vacationing in Hermosa Springs, Florida.

Doctor Salowich was medical director for ten years at the Chrysler Corporation's DeSoto plant.

Born in Wilkes-Barre, Pennsylvania, Dr. Salowich lived in Detroit for fifty years, having graduated in 1931 from the Detroit College of Medicine. A Mason, he was a member of St. Nicholas Lodge, the Scottish Rite, Moslem Shrine and the Chanters.

Communication

To the Editor

Dear Sir: In the September number of THE JOURNAL of the Michigan State Society, page 1159, "Function of an Amputee Clinic," under the heading, Physical Therapy, "ultraviolet light" is mentioned.

The visible spectrum of sunlight is now modernly supposed to consist of three primary colors; violet, green, and red.

At each end of the visible or light spectrum, respectively, are the invisible rays of the ultraviolet and the equally invisible rays of infrared.

It is a curious fact that many physical therapy (medicine) authorities consistently mistakenly continue to mention ultraviolet *light* synonymously with rays. As both are invisible and equally non-visual rays, why should either end be termed light and the other never so illogically?

In "Electrotherapy and Light Therapy," page 403 (1935), Richard Kovacs, thus conclusively writes: "Light is a form of radiant energy which makes objects visible by stimulating the retina of the eye. Ultraviolet and infrared radiation do not render objects visible."

Yours in the interest of correct, scientific physical therapy,

JOSEPH E. G. WADDINGTON, M.D.

Detroit, Michigan
November 7, 1957



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. NEWS MEDICAL

MICHIGAN AUTHORS

Ignace J. Robarge, M.D., and **Lee Carrick, M.D.,** Detroit, are the authors of an article entitled "The Treatment of Dermatoses of Psychogenic Origin with Bellergal," published in *Antibiotic Medicine and Clinical Therapy,* July, 1957.

L. Douglas MacRae, M.D., and **D. Evangeline MacRae, M.T.** (A.S.C.P.) Bay City, are the authors of an article entitled "The Long-Term Regulation of Dicumarol Dosage by the Venous Clotting Time," published in the *American Practitioner and Digest of Treatment,* November, 1957.

Joseph E. Kincais, M.D., Ann Arbor, is the author of an article entitled "Military Medicine during the Civil War," published in the *University of Michigan Medical Bulletin,* August, 1957.

Charles G. Johnston, M.D., and **Fumio Nakayama, M.D.,** Detroit, are the authors of an article entitled "Solubility of the Cholesterol and Gallstones in Metabolic Material," read at the 14th Annual Meeting of the Central Surgical Association, Chicago, February, 1957, and published in the AMA *Archives of Surgery,* September, 1957.

Edwin M. Knights, Jr., M.D., and **Victor Jablokow, M.D.,** Detroit, are the authors of an article entitled "A One-Drop Method for Detection of Albuminuria," published in *The Journal of the American Medical Association,* November 9, 1957.

Daniel W. Johnston, M.D., William B. Jensen, M.D., and **Mary Lou Byrd, M.D.,** Grand Rapids, are the authors of an article entitled "Successful Cardiac Resuscitation following Tetracaine Reaction," published in the AMA *Archives of Otolaryngology,* November, 1957.

John W. Henderson, M.D., Ann Arbor, is the author of an article entitled "Progressive Exophthalmos in Thyroid Disease," published in THE JOURNAL of the Michigan State Medical Society, July, 1957, and digested in the *Digest of Ophthalmology and Otolaryngology,* July, 1957.

M. Koike, M.D., and **S. Lutz, M.D.,** Detroit, are the authors of an article entitled "Recurrent Ileal Prolapse and Incarceration in an Ileocecal Bladder—Case Report," published in *Harper Hospital Bulletin,* September-October, 1957.

W. O. Umiker, M.D., L. Weatherbee, B.S., R. Rapp, M.D., and **D. E. Boblitt, M.D.,** are the authors of an article entitled "Cytologic Effects of Irradiation in Oral Smears: A Study of the Changes in Benign Squamous Cells," published in the *University of Michigan Medical Bulletin,* August, 1957.

Michael N. Zelenock, M.D., Robert D. Larsen, M.D., and **Joseph L. Posch, M.D.,** Detroit, are the authors of an article entitled "Treatment of Fractures of the Hand," read at the 14th Annual Meeting of the Central Surgical Association in Chicago, February, 1957, and published in AMA *Archives of Surgery,* September, 1957.

Jack Kevorkian, M.D., Ann Arbor, is the author of an article entitled "Incidence of Carcinoid Tumors: Review of Necropsy and Surgical Specimens at the University of Michigan," published in the *University of Michigan Medical Bulletin,* August, 1957.

Marion S. DeWeese, M.D., Melvin M. Figley, M.D., William J. Fry, M.D., Robert Rapp, M.D., and **Howard L. Smith, M.D.,** Ann Arbor, are the authors of an article entitled "Clinical Appraisal of Percutaneous Splenoportography." read at the 14th Annual Meeting of the Central Surgical Association, Chicago, February, 1957, and published in the AMA *Archives of Surgery,* September, 1957.

Wilma Donahue and **Clark Tibbitts** are the authors of a book entitled "The New Frontiers of Aging," published by the University of Michiagn Press, Ann Arbor.

W. L. Anderson, M.D., and **G. C. Thosteson, M.D.,** Detroit, are the authors of an article entitled "Excerpts —1957 Meeting, American Diabetes Association," published in the *Harper Hospital Bulletin,* September-October, 1957.

Samuel J. Nichamin, M.D., and **William S. Gonne, M.D.,** Detroit, are the authors of an article entitled "Foreign Body (Paper Clip) in the Esophagus of a Young Infant," published in the *Journal of Pediatrics,* August, 1957.

Richard S. Johnson, M.D., Detroit, is the author of an article entitled "Sarcoma of the Uterus," published in *Harper Hospital Bulletin,* September-October, 1957.

Harry C. Saltzstein, M.D., Detroit, is the author of an article entitled "Present-day Problems in Intern-Resident Education," published in the *Harper Hospital Bulletin,* September-October, 1957.

William C. Grabb, M.D., Ann Arbor, is the author of an article entitled "Pilonidal Disease: Series of 100 Consecutive Cases," published in the *University of Michigan Medical Bulletin,* August, 1957.

H. O. Wagg, M.D., C.M., Detroit, is the author of an article entitled "Cerebrovascular Accidents in Pregnancy," published in the *Harper Hospital Bulletin,* September-October, 1957.

J. R. Caldwell, M.D., Detroit, is the author of a paper entitled "Hydralazine Syndrome-Hypersensitivity or Toxicity"? which appeared under "Clinical Notes" in J.A.M.A. of December 7, 1957.

* * *

The Board of Regents of the American College of Physicians at the last annual meeting, November 9-10, 1957, in Philadelphia, accepted the following members into full fellowship: Matthew R. Kinde, M.D., Battle Creek; Clayton K. Stroup, M.D., Flint; Robert W. Talley, M.D., Kalamazoo; and Richard C. Bates, M.D., Lansing.

Also named as Associates of the College were: Norman J. Goode, Jr., M.D., Ferndale; Joseph Thaddeus Sadilkowski, M.D., Garden City; Raymond H. Murray, M.D., Grand Rapids; Jerome Francis Cordes, M.D., Lansing; Fred W. Whitehouse, M.D., St. Clair Shores; Robert Kenneth Noxon, Jr., M.D., Birmingham; and from Detroit, John Burton Bryan, M.D.; Herbert C. Cantor, M.D.; Laurie C. Dickson, M.D.; Boy Frame, M.D.; Edwin M. Knights, Jr.; and Milton J. Steinhardt, M.D.

These new members will have ten years in which to complete their preparation for full fellowship.

* * *

Nicholas S. Gimbel, M.D., Detroit, Associate Professor of Surgery, Wayne State University College of Medicine, was elected to membership in the Western Surgical Association at the annual meeting in Salt Lake City.



Two Detroit physicians were honored by the Radiological Society of North America at its 43rd annual session in Chicago, for prize-winning scientific exhibits which received *summa cum laude* honors. Illustrated are James E. Lofstrom, M.D., and Morris Tatelman, M.D., receiving the honors. Four other Detroit physicians, J. E. Webster, M.D., J. L. Chason, M.D., J. S. Meyer, M.D., and E. S. Gurdjian, M.D., were included in the honor.

* * *

The American Orthopsychiatric Association will hold its thirty-fifth annual meeting at the Commodore and Roosevelt Hotels in New York City, March 6, 7 and 8, 1958.

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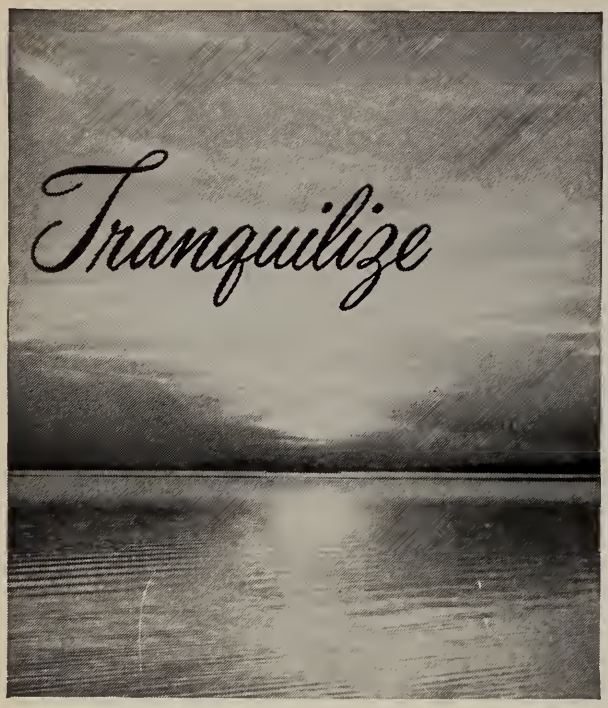
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The American Academy of General Practice, with more than 8,000 members, announces its Tenth Anniversary Assembly on Tuesday, March 25, 1958, in combination with the Dallas Southern Clinical Society. The Congress of Delegates will meet at 2 p.m. on Saturday, March 22. On Wednesday evening, March 26, a final reception and dance, honoring the new President of the Academy, Malcomb E. Pheleps, M.D., of Elrino, Oklahoma, will be held.

* * *



Treatment with isoniazid can prevent 80 per cent of the complications of primary tuberculosis in young children, the first report of a U. S. Public Health Service study indicates.

Involved in the study were 2,750 children with asymptomatic primary tuberculosis. Half were given isoniazid pills daily. The other half received placebos. During the first year, five children receiving isoniazid and twenty-six on placebos developed serious extrapulmonary complications. The study is being conducted by thirty-three pediatric centers including Herman Kiefer Hospital in Detroit. The report is published in the December issue of the *American Review of Tuberculosis and Pulmonary Diseases.*—MICHIGAN TUBERCULOSIS ASSOCIATION.

* * *

The Sixth Annual Symposium on Trauma was held in Detroit on December 4, 1957, under the sponsorship of Wayne State University College of Medicine and the Michigan Committee on Trauma of the American College of Surgeons at Detroit Receiving Hospital. There were ward walks, four operating room demonstrations: tendon repair, "repair of facial injury," surgery of burns, open reduction of fracture, by members of the faculty. A luncheon was served at noon at the Wayne State University Medical School cafeteria. In the afternoon, at the clinical laboratory the following subjects were presented: abdominal trauma in the adult, abdominal trauma in the child, management of the patient with crushed chest, question and later substitute intestinal segments in abdominal trauma by John Hammer, M.D., of Kalamazoo; foreign bodies in the eye, then a panel on fracture problems discussing value of traction in present-day treatment of fracture, dangers of infection in 1950, also followed by a question period.

* * *

Max K. Newman, M.D., Detroit, presented a program entitled "Institutional Geriatrics at the Jewish Home for the Aged," November 17, 1957. He also gave a talk entitled "Myasthenia Gravis, Its Neuromuscular Diagnosis and Management" before the Michigan Chapter of the Myasthenia Gravis Foundation at the Barlum Hotel, in Detroit, on November 17, 1957. On November 19, 1957, he gave a talk on "Chronic Disability and Chronic Disease. The Utilization of the Facilities of a General Hospital in Their Control," at the Michigan Welfare Conference. At that time he

Say you saw it in the Journal of the Michigan State Medical Society

was elected to the Board of Directors of the Michigan Welfare League. On November 21, he talked to the League of Jewish Women's Organizations on "Clinical Problems and Management of Muscular Dystrophy" in Detroit.

* * *

The Medical Society of the State of Wisconsin conducted a clinical teaching program, November 5, 6 and 7, 1957, in Monroe at the Country Club, in Viroqua at the Vernon County Hospital, and in Chippewa Falls at the Hotel Northern. It was an afternoon program with Robert C. Parkin, M.D., Director of Postgraduate Medical Education at the University of Wisconsin Medical School as moderator. There were four topics of discussion: "Rehabilitation of the Cardiac" by Elston Belknap, M.D., Marquette University School of Medicine; "Eye Care in General Practice," Frederick J. Davis, M.D., University of Wisconsin Medical School; "Diabetes in Pregnancy," Russel J. Paalman, M.D., Grand Rapids, Michigan; and "Bleeding as a Symptom in Infancy and Childhood," Nathan J. Smith, M.D., University of Wisconsin Medical School. The dinners were followed by general symposium and question and answer periods.

* * *

The Smith Kline & French Laboratories established its Foundation as an independent philanthropic arm to promote basic research in medicine and related sciences. On November 28, 1957, the Foundation made its first report of the first four years from 1953 through 1956 and the disbursement of $1,457,876.00, listing the grants covering the whole United States. This report is the first public announcement.

Five areas are supported with SKF Foundation funds. Basic research in medicine and related sciences received the largest portion of funds—$673,910 for projects unrelated to the Philadelphia pharmaceutical firm's commercial research interests. Next in order were education grants, $320,711; public charities and community improvement, $178,650; mental health, $157,500, and building and equipment funds, $127,105.

Fifty-four national organizations received grants to the total of $295,250. These included many organizations—Red Cross, Muscular Dystrophy, Polio, several psychiatric societies and last on the list was World Medical Association, with a total of $7,500 in four grants. The grants for each state were listed. In Michigan, there was a Henry Ford Hospital grant for laboratory equipment $3,000 in the Department of Dermatology, and the University of Michigan had a grant of $7,500 to the Department of Zoology to conduct basic studies in microbiological genetics.

* * *

The Council on Medical Defense of the American Medical Association, together with the Association of Medical Colleges, has set up a program, Medical Education for National Defense (MEND), to encourage the teaching in medical schools of medical defense, military medicine and disaster medicine. The program started in 1952 with five pilot schools and has steadily ex-

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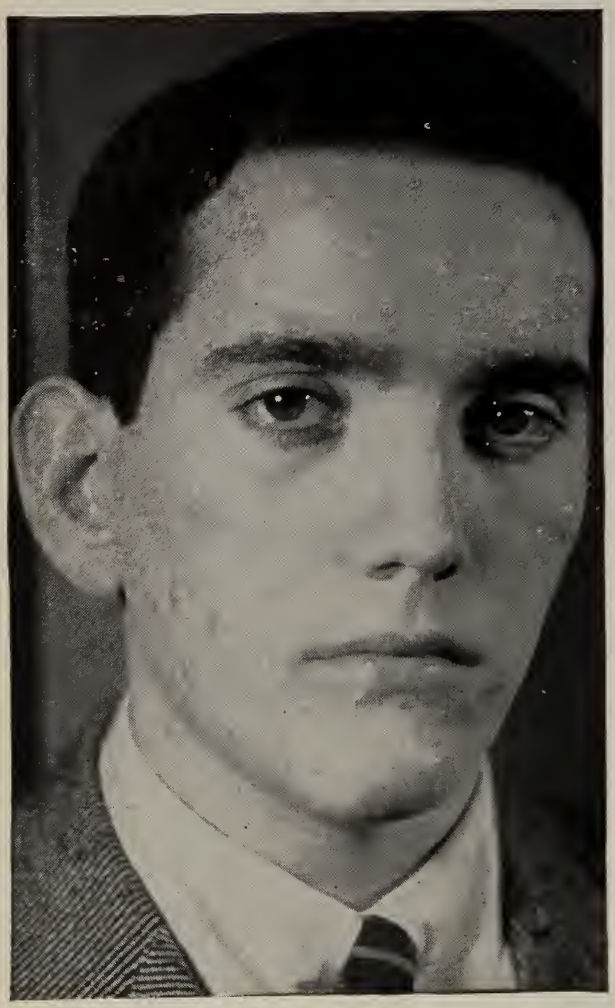
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panded until now there are forty-five schools with 14,000 medical students involved. The cost of the program has been $10,000 per school per year, or about $30 per student. Last year, the total program including the Washington co-ordinators office, was $325,000, but it is feared that the economy wave now upon us may restrict this program. Medical schools are more or less self contained in setting up their program, but MEND sponsors a series of symposiums at federal medical installations, also conducts a tour for deans and coordinators of MEND—affiliated schools, designed to introduce them to current problems and trends in the federal services.

The Council is also considering the probability of fall-out debris deposition.

* * *

The Eighth County Medical Societies Civil Defense Conference was held in Chicago in November. E. G. Sharp, M.D., of Philadelphia, was selected as conference chairman, and Paul S. Parrino, M.D., of Battle Creek, was named program chairman for the next annual conference, November 8-9, 1958, at the Morrison Hotel in Chicago.

* * *

The Atomic Energy Commission is considering a long-range research program on all phases of atomic radiation to increase the exact radiation effects and to form increased emphasis on the genetic changes which might occur in the human being. The aid of the medical profession in general is needed, and very especially the medical men prepared to serve in disaster condition or military emergency.

* * *

Appointment of Anthony C. Nolkes, M.D., Detroit, as Assistant Dean in Wayne State University College of Medicine and Director of Medical Education at Children's Hospital was announced in November.

Dr. Nolke will represent both the Dean of the College of Medicine, Dr. Gordon H. Scott, and the Hospital in developing and coordinating their joint medical education program. He will continue as Associate Chief of Pediatrics at Children's Hospital.

Dr. Nolke graduated from Indiana University Medical School in 1942. During World War II, he was a captain in the medical corps attached to the infantry. He came to Detroit for residency training at Herman Kiefer and Children's Hospital in 1947. He has been a staff member of the College of Medicine since 1948 and associate professor in pediatrics since 1953.

A long-time working relationship between the University and Children's Hospital was officially cemented by an affiliation agreement approved by both institutions several weeks ago. The medical education at Children's includes teaching eighty Wayne State University medical students and working with a full quota of forty-two doctors in their pediatrics residency training. The College of Medicine-Children's Hospital staff members also carry on research and patient services in medicine, surgery, x-ray, pathology and hematology.

(Continued on Page 150)

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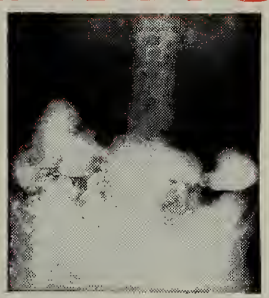
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1. Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

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(Continued from Page 148)

The Health Information Foundation announced November 1, 1957 that in 1958 it will sponsor and jointly conduct with the National Opinion Research Center of the University of Chicago another nation-wide survey of medical costs and voluntary health insurance coverage. The new study will be a resurvey of the HIF-NORC study of 1953 which provided basic health insurance data.

A grant of $167,000 was approved for the new study at a recent meeting of the Foundation's Executive Committee. The Committee acted in behalf of the more than 200 companies in the drug, pharmaceutical, chemical and allied industries that sponsor the Foundation.

According to George Bugbee, Foundation President, the 1958 survey will undoubtedly show the great improvement in voluntary health insurance coverage since 1953. He says:

"That improvement has been considerable. Since 1953, enrollment in voluntary health insurance has increased from 58 per cent of the American population to more than 70 per cent.

"More significantly, the total percentage of private payments for medical care covered by Blue Cross-Blue Shield, insurance companies and other types of plans has doubled during the same period. The Foundation believes that its 1953 study, which documented the strengths and weaknesses of voluntary health insurance for the first time on a nationwide basis assisted in stimulating this tremendous growth."

The 1958 study, Bugbee explained, will provide comparisons with the 1953 data of medical expenditures, utilization of medical services and patterns of health insurance coverage. In addition, it will collect a larger body of data on individuals not presently protected by health insurance and on families with high costs.

A detailed report of the Foundation's earlier survey was published by the McGraw-Hill Book Company in 1956 as "Family Medical Costs and Voluntary Health Insurance: A Nationwide Survey." It was compiled and written by Odin W. Anderson, Ph.D., Foundation Research Director, and Jacob J. Feldman of the staff of the National Opinion Research Center.

* * *

Smallpox infection was carried by international travelers into eighteen countries last year and as a result, eight of them suffered epidemics of this quarantinable disease. At the annual meeting of the World Health Organization in Geneva, warnings were issued against a relaxation of vaccination measures against smallpox. They drew attention to the advantages of dried smallpox vaccine for mass campaign. The dried vaccine is easily transferable, remains effective without refrigeration, and does not spoil even in the tropics. The eight countries where smallpox epidemics developed were Ceylon, Ghana, Iran, Italy, Lebanon, Sierra Leone, Sudan and United Kingdom. Smallpox was imported without developing epidemic proportions into Argentina, Federal Republic of Germany, Greece, India, Iraq. Jordan, Netherlands, Paraguay, Syria and Uruguay.

(Continued on Page 152)

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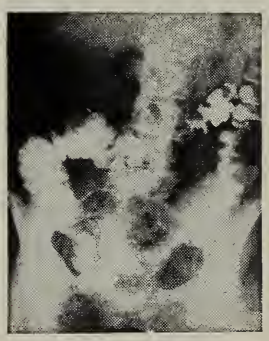
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Grand Rapids 2, Mich.

(Continued from Page 150)

The Educational Council for Foreign Medical Graduates, after nearly three years of planning, has opened offices in Evanston, Illinois. Some form for evaluations of services has become necessary, and the American Medical Association, Association of Medical Colleges, the American Hospital Association, and the Federation of State Medical Boards of the United States have established an independent agency which will be sponsored by these four agencies and financed by the Kellogg Foundation and the Rockefeller Foundation. It will be run by a ten-member board, two from each of the sponsor organizations, one representing the public at large and one named by the United States Department of Defense, the other by the Department of Health, Education and Welfare. The Council will make available to properly qualified foreign medical graduates while still in their own country all information on how to obtain certification. This involves a three-way screening process. First, the Council will certify that the student's educational qualifications have been checked and found meeting minimal standards. Second, the Council will certify to enough knowledge of English for the needs of an internship in an American hospital. Third, the Council will certify to the general knowledge of medicine as evidenced by passing American medical qualifications examination. The Council will provide hospitals, state licensing boards and specialty boards which the foreign medical graduates designate, with the results of the three way screening.

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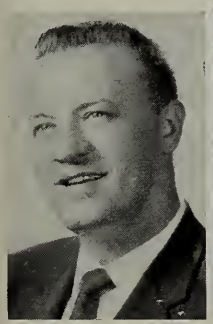
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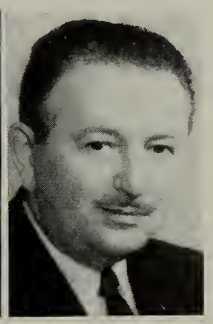
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G. E. Braunschneider, M.D.



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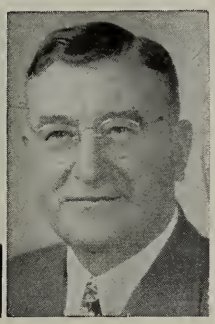
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C. F. List, M.D.



R. H. Meade, M.D.



R. C. Moehlig, M.D.



R. A. Rasmussen, M.D.



R. F. Street, M.D.

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All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 5-7125.

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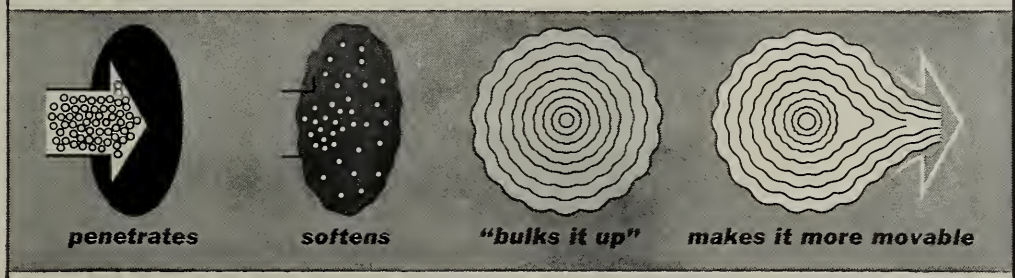
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FREDERICK COLLER TO SPEAK TWICE DURING MCI



Frederick A. Coller, M.D., Ann Arbor, Professor Emeritus of Surgery, University of Michigan, will make two appearances at the 1958 Michigan Clinical Institute:

1. As Assembly Speaker at 9:00 a.m. on March 19, on the subject "Relationship of Colonic Polyps to Cancer of the Colon."

2. As Guest Speaker at the Cancer Control luncheon, English Room, Sheraton-Cadillac Hotel, Wednesday, March 19, 12:00 noon.

Doctor Coller's subject at the luncheon is "Surgery Then and Now." In addition to Doctor Coller, two other Assembly speakers will be honored at the Cancer Control luncheon: the Michigan Cancer Co-ordinating Lecturer, Cyrus C. Erickson, M.D., of Memphis, Tennessee, and the Michigan Foundation for Medical and Health Education Lecturer, Laurance W. Kinsell, M.D., of Oakland, California. Doctors Erickson and Kinsell will receive scrolls of appreciation from their sponsoring organizations, the former to be presented by Harry M. Nelson, M.D., of Detroit, Chairman of the Michigan Cancer Co-ordinating Committee, and the latter by E. I. Carr, M.D., Lansing, President of the Foundation. The Michigan State Medical Society scroll will be presented to Dr. Coller by President George W. Slagle, M.D., Battle Creek.

PUBLIC TO SEE BLOOD VESSEL SURGERY TELEVISED

During the Michigan Clinical Institute—on Tuesday evening, March 18—a live presentation of "Blood Vessel Surgery" will be beamed to the public through the facilities of Detroit Station WWJ-TV and the cooperation of Smith, Kline and French Laboratories, Philadelphia.

This public presentation will augment the closed circuit color television program, for doctors of medicine only, which will be a feature of the MCI on Wednesday, Thursday, Friday, March 19, 20, 21, between the hours of 1:00 and 2:30 p.m. daily.

All doctors of medicine are urged to invite their patients to tune in the public showing of "Blood Vessel Surgery" on Tuesday evening, March 18, over WWJ-TV.

PERIODIC HEALTH APPRAISAL

The value of early diagnosis and prevention of disease has been dramatically shown in the first year's results of the periodical health appraisal examinations program at University of Michigan.

In an interview following his presentation to members of the Ninth Selby Discussional at the University of Michigan Charles J. Tupper, M.D., director of the periodic examination program stated, "We believe that through regular examinations, we can uncover much unsuspected disease, can contribute to longevity and reduce disability."

Dr. Tupper pointed out that "startling results" have been produced through the very complete examinations, including x-ray and laboratory studies, given the approximately 300 individuals who have been examined.

Ages varied from forty-three to eighty-seven years. All were professional people, and most were between fifty and sixty years of age. Attention, said Dr. Tupper, was directed toward disease conditions or defects not previously recognized or known to exist.

Of 465 such defects found, he said, 245 were of such importance as to warrant immediate attention. Thirty-seven people were found to have sugar diabetes, and twenty-one had high blood pressure. Among eight persons, nine cancers were found. Five of these appear to have been successfully treated. One case of active tuberculosis was discovered, and two people were found to have had heart attacks which were previously unrecognized.

Dr. Tupper cited the findings among this group as evidence of the value of such a program, stating, "This is the application of the concept of preventive maintenance to human beings." The program, now nearly eighteen months old, is continuing at the University.

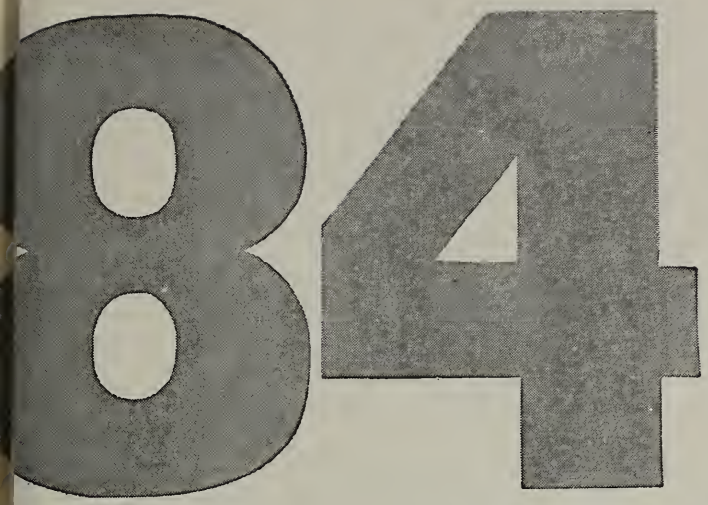
GRAND RAPIDS LEADS IN 1957 ANNUAL SESSION ATTENDANCE

At the September, 1957, Michigan State Medical Society Annual Session in Grand Rapids, 1,594 Doctors of Medicine were registered out of a total attendance of 3,290. Grand Rapids chalked up the greatest M.D. attendance with 350. Detroit came in second with 192, Flint was third with 98, and Lansing fourth with 95. Other cities sending sizable delegations were Kalamazoo, Muskegon, Saginaw, Battle Creek, Ann Arbor and Pontiac in that order.

Sixty-seven M.D.'s came from out of Michigan, with fifteen from Indiana and eleven from Illinois. Two hundred twenty-six separate communi-

(Continued on Page 170)

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compound unexcelled

Progress has been made in antibiotic therapy through the use of absorption-enhancing agents, resulting in higher, more effective antibiotic blood levels.

For the past two years, in a continuing search for more effective agents for enhancing oral antibiotic blood levels, our Research Laboratories screened eighty-four adjuvants, including sorbitol, citric acid, sodium hexametaphosphate, and other organic acids and chelating agents as well as phosphate complex and other analogs. After months of intensive comparative testing, glucosamine proved to be the absorption-enhancing agent of choice. Here's why:

1 Crossover tests show that average blood levels achieved with glucosamine were markedly higher than those of other enhancing agents screened. In some cases this effect was more than double.

2 Of great importance to the practicing physician is the consistency of the blood level enhancement achieved with glucosamine. Extensive tests show that the enhancing effect with glucosamine occurs in a greater percentage of cases than with any other agent screened.

3 Glucosamine is a nontoxic physiologic metabolite occurring naturally and widely in human secretions, tissues and organs. It is nonirritating to the stomach, does not increase gastric secretion, is sodium free and releases only four calories of energy per gram. Also, there is evidence that glucosamine may favorably influence the bacterial flora of the intestinal tract.

For these reasons glucosamine provides you with an important new adjuvant for better enhancement of antibiotic blood levels. Tetracycline, potentiated physiologically with glucosamine, is now available to you as COSA-TETRACYN.

Capsules 250 mg. and 125 mg.

COSA-TETRACYN*

GLUCOSAMINE-POTENTIATED TETRACYCLINE

The most widely used broad-spectrum antibiotic now potentiated with glucosamine, the enhancing agent of choice

Pfizer

PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
Brooklyn 6, N. Y.

*Trademark

GRAND RAPIDS LEADS

(Continued from Page 168)

ties of Michigan were represented at the Annual Session by one or more medical men.

Sixteen Specialties

Sixteen specialties were represented, the Generalists leading with a registration of 491. Surgery had a total of 240 representatives, and Medicine came in third with 129. Other sections were represented as follows: Residents and Interns—114; Obstetrics and Gynecology—82; Pediatrics—76; Ophthalmology and Otolaryngology—74; Nervous and Mental—46; Public Health—40; Radiology—36; Anesthesiology—36; Pathology—34; Urology—25; Occupational Health—23; Gastrology-Proctology—18 and Dermatology—16. Forty-four physicians did not indicate a specialty on their registration cards.

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

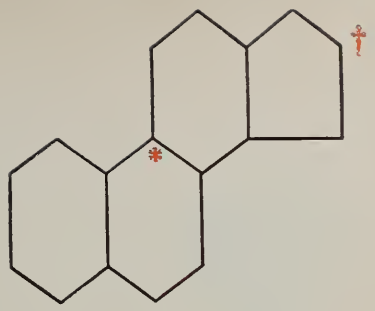
Meeting of December 18, 1957

Sixty items were presented and discussed at the December meeting of the Executive Committee of The Council, held in Lansing, including:

- **Certification of Psychologists.** MSMS Mental Health Committee Chairman, I. A. LaCore, M.D., Pontiac and member W. H. Obenauf, M.D., Ypsilanti, presented the problem of some psychologists trying to invade the private practice of medicine. The Executive Committee of The Council, after considered deliberation of the problem, "feels that psychologists are not properly trained to practice psychotherapy."
- **Progress report of the Committee on Site** for new MSMS building was presented by Chairman K. H. Johnson, M.D., of Lansing.
- **William A. Hyland, M.D.,** Grand Rapids, Chairman of Michigan's Delegation to the AMA House of Delegates, presented a report on the December 3-6 Clinical Session of AMA House of Delegates held in Philadelphia. Chairman D. Bruce Wiley reported that Dr. Hyland, as Chairman of the AMA Study Committee on the Heller Report, had received commendation from the AMA House of Delegates.
- **President George W. Slagle, M.D.,** Battle Creek, reported that H. L. Bockus, M.D., of Philadelphia, had accepted invitation to be the 1958 Biddle Lecturer at the MSMS Annual Session, scheduled for Detroit, Tuesday noon through Friday noon, September 30-October 3.
- **Medicare.** A report on the first year's experience with Medicare was presented by G. B. Saltonstall, M.D., of Charlevoix who was MS MS representative at the December 6 Medicare conference in Philadelphia. Jay C. Ketchum, Executive Vice President of Michigan Medical Service reported that Medicare fees would be up for renegotiation March 18, 1958 and that MSMS was authorized to appoint two representatives to cover the renegotiation meetings in Washington, D. C.
- **C. I. Owen, M.D.,** Detroit, was selected as General Chairman of Arrangements for the 1958 MSMS Annual Session in Detroit.
- **Legal Counsel Lester P. Dodd** was authorized to attend the AMA Legal Conference, Chicago, May 9-10, 1958.
- **IBM Members' History Card.** Secretary L. Fernald Foster, M.D. presented a proposed questionnaire to be sent to all MSMS members from which information could be placed on the IBM history card, which is step number two in the MSMS modernization of membership record. The questionnaire was approved and ordered sent to all members.
- **K. H. Johnson, M.D.,** Lansing, W. B. Harm, M.D., Detroit, and G. B. Saltonstall, M.D., Charlevoix, were appointed Michigan representatives to the Liaison Committee with the Michigan Academy of General Practice.
- **F. P. Rhoades, M.D., Detroit,** was appointed American Medical Education Foundation Chairman for Michigan; Raphael Altman, M.D., Detroit, was appointed as Chairman of the MSMS Hospital Relations Committee.
- **Committee Reports.** Consideration was given to the following reports: Geriatrics Committee, meeting of October 29; Permanent Conference Committee, November 20; Committee on Study of Prevention of Highway Accidents, November 21; Committee on Scientific Work, November 21; Maternal Health Committee, November 22; Advisory Committee to Michigan State Medical Assistants Society, November 25; Medical Care Insurance Committee, November 30-December 1; Permanent Advisory Committee on Fees, December 12; Rheumatic Fever Control; December 4; Committee on Program for Residents-Interns-Senior Medical Students Conference, meeting of December 12; Iodized Salt Committee, December 16.
- **The Public Relation Counsel's report** included: (a) Distribution of MSMS Survey Report; (b) Michigan Rural Health Program (Ann Arbor, January 22-23, 1958); (c) Schedule of 1958 Legislative Session (d) Michigan Health Officers Association meeting, Detroit, May 7-9.

1958 MEDICAL MEETINGS AND CLINIC DAYS

March 19-21	Michigan Clinical Institute	Detroit
Spring	MSMS Postgraduate Extramural Courses	Statewide
April 9	Genesee County 13th Annual Cancer Day	Flint
April 24-25	Wayne State Univ. Fourth Annual Nutrition Conference. Lafayette Clinic Auditorium,	Detroit
May 1	Ingham County Clinic Day	Lansing
May 6-7	Wayne State Univ. 90th Clinic Day and Alumni Reunion. Fort Shelby Hotel	Detroit
May 14	Conference on Rehabilitation	East Lansing
June 20-21	Upper Peninsula Medical Meeting	Marquette



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- **a new high** in anti-inflammatory effects with lower dosage (averages 1/3 less than prednisone)
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 - No sodium or water retention
 - No potassium loss
 - No interference with psychic equilibrium
 - Lower incidence of peptic ulcer and osteoporosis

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Heart Beats

MICHIGAN HEART ASSOCIATION GIVES ONE-QUARTER MILLION FOR RESEARCH*

M. S. Chambers, M.D., Flint, President of the Michigan Heart Association, reports that the Association is appropriating more than half of all its available funds to underwrite scientific research in the field of Cardiovascular Disease. A total of $264,517.00, the largest amount ever awarded in the Association's history, was allocated to 37 scientific investigators in 10 medical institutions in Michigan for the 12 month period ending June 30, 1958. In addition, the American Heart Association is providing $38,850.00 to six medical scientists in Michigan for Heart and Blood Vessel research.

Since the Michigan Heart Association was founded in 1949, it has appropriated more than $1,000,000.00 for research in Michigan. The parent organization, the American Heart Association, has appropriated the tremendous sum of $25,000,000.00 for research since it was organized in 1948.

Dr. Chambers points out, however, that even with this emphasis on scientific research, the Michigan Heart Association has no intention of cutting its services to the practicing physician. Professional education is still one of the Association's primary objectives, and a large selection of materials is available to Michigan physicians. This material ranges from the technical materials of primary interest only to the Cardiologist to other materials designed for the General Practitioner.

Among the materials found to be of great value to the physician are three medical lecture kits available on a free loan basis. These kits consist of a series of slides and phonograph records which explain the slides. A printed explanation is included for future reference. The three subjects covered in the kits are: "The Role of the P-A Film of the Chest in Cardiology" by William R. Christensen, M.D., Professor of Radiology, University of Utah; "The Prevention of Rheumatic Fever" by Gene H. Stollerman, M.D., Assistant Professor of Medicine, Northwestern University; "Functional Pathology of Occlusive Coronary Disease" by Jesse E. Edwards, M.D., Professor of Pathologic Anatomy, Mayo Clinic and Mayo Foundation.

These kits, as well as technical slides, films, heart models, tape recordings of heart sounds and medical literature are available to all physicians, whether they are members of the Michigan Heart Association or not. Dr. Chambers points out, however, that various valuable publications about cardiovascular disease are available only as part of membership in the Association.

A large amount of other literature, films and exhibits are also available to the physician for use with his patients or the lay public in general.

*See January, 1958, JOURNAL MSMS cover, devoted to display composite of educational services of the Michigan Heart Association.

NINTH ANNUAL MICHIGAN HEART DAY SCHEDULED

The Ninth Annual Scientific Sessions and Annual Meeting of the Michigan Heart Association have been scheduled for Thursday, March 20, 1958, at the Sheraton Cadillac Hotel, Detroit, in conjunction with the Clinical Institute of the Michigan State Medical Society. An outstanding Scientific program has been arranged. Two out-of-state speakers have been secured. They are: Charles H. Rammelkamp, M.D., of Cleveland, who will speak on Rheumatic Fever, and Edgar V. Allen, M.D., of Rochester, Minnesota, who will moderate a panel on Peripheral Vascular Disease and who will also be the guest speaker at the Annual Dinner Meeting of the Michigan Heart Association. Dr. Allen is the Immediate Past-President of the American Heart Association. In addition to Drs. Allen and Rammelkamp the following Michigan Doctors of Medicine will appear on the Thursday morning Heart Day Program: Drs. W. L. Anderson, Harper K. Hellems, Sibley W. Hoobler, Eugene A. Osius and D. Emerick Szilagyi.

MEMBERSHIP IN THE MICHIGAN HEART ASSOCIATION URGED

The benefits of being an active member of the Michigan Heart Association are offered to Michigan physicians. Membership is open to any Doctor of Medicine who is interested in the objectives and activities of the Association. A five dollar membership includes the following benefits:

1. One Year Subscription to the monthly MODERN CONCEPTS OF CARDIOVASCULAR DISEASE, generally recognized by physicians as one of the best, concise scientific publications of its type.
2. Easy access to the slides, films, literature and other educational aids of the Michigan and the American Heart Associations.
3. Opportunity to meet with and help fellow physicians direct the policies of the Michigan Heart Association.
4. Automatic membership in the American Heart Association.

(Continued on Page 176)

a Major Breakthrough in EDEMA— in HYPERTENSION



'DIURIL'

(CHLOROTHIAZIDE)

EDEMA—'DIURIL' is an entirely new, orally effective, nonmercurial diuretic—classed as the most potent and most consistently effective oral agent available—with activity equivalent to that of the parenteral mercurials. It has no known contraindications.

Indications: Any indication for diuresis is an indication for 'DIURIL'.

Dosage: One or two 500 mg. tablets of 'DIURIL' once or twice a day.

HYPERTENSION—'DIURIL' improves and simplifies the management of hypertension: it potentiates the action of antihypertensive agents and often reduces dosage requirements for such agents below the level of distressing side effects.

Indications: Hypertension of any degree of severity.

Dosage: One 250 mg. tablet 'DIURIL' two times daily to one 500 mg. tablet 'DIURIL' three times daily.

Supplied: 250 mg. and 500 mg. scored tablets 'DIURIL' (Chlorothiazide), bottles of 100 and 1,000.

'DIURIL' is a trademark of Merck & Co., Inc.

MSD

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Cancer Comment

WHAT IS A CENTRAL CANCER REGISTRY?

A central cancer registry provides for the pooling of records from a group of hospitals, and permits not only evaluations within its participating institutions but also between these institutions.

The primary purpose of a central cancer registry is to serve as a foundation for the Cancer Control Program of the geographic area covered by the participating hospitals. It measures the magnitude of a cancer program and helps evaluate the effectiveness of cancer control measures.

The basic objectives of a central cancer registry are:

(a) To provide a readily available source of consultative and supervisory assistant in the establishment and maintenance of the registries in the individual hospital participating in the program;

(b) To establish this a clearing house and cross reference file of information which will facilitate the follow-up of cancer patients in each of the participating hospitals; and

(c) To compile data and prepare an analyses on an area wide, as well as on an individual hospital basis.

Basic principles that must be considered in the development of a successful central cancer registry program are:

(a) It must have complete backing and active participation of all organized medical groups.

(b) It must have the continuing counsel and guidance of a committee representing these groups for setting policy and ground rules on the responsibility and authority for the collection, maintenance, use, and final disposition of accumulative records.

The American College of Surgeons requires a tumor registry for approval of a cancer facility in a hospital.

The Michigan Cancer Co-ordinating Committee endorses and recommends the establishment of central cancer registries.

HARRY M. NELSON, M.D., Detroit

Heart Beats

MEMBERSHIP IN THE MICHIGAN HEART ASSOCIATION URGED

(Continued from Page 174)

M. S. Chambers, M.D., President of the Association, in urging members of the Michigan State Medical Society to join, points out that Doctors of Medicine have the opportunity to help direct the activities of a voluntary health organization such as the Michigan Heart Association; so that these activities will always be in accord with those of the Medical Profession.

Membership application and complete details may be obtained by writing to the Michigan Heart Association, Doctors' Building, 3919 John R., Detroit 1, Michigan.

MEMORIAL GIFTS PROVIDE FOR HEART RESEARCH

Memorial gifts to the Michigan Heart Association have provided almost $65,000.00 for scientific research in Michigan this year. These gifts to the Association's Memorial Fund are always used exclusively for heart research studies, and make possible the underwriting of about nine or ten research projects which otherwise would not have been possible.

This fund was originally established at the request of many persons who have wanted an opportunity to provide a "living memorial" to the memory of a friend, relative, or associate who has been afflicted with heart disease. Physicians can do a great deal to benefit heart research by acquainting their patients with existence of this Memorial Fund and of good that can result from contributing to it.

The remainder of the total of $264,517.00 which the Association allocated to research this fiscal year has been made possible by public contributions to United fund-raising campaigns in many Michigan communities.

NEW PAMPHLET AVAILABLE TO PHYSICIANS FOR USE WITH PATIENTS

"Vericose Veins" is the title of a new Michigan Heart Association pamphlet. Physicians may request free copies for distribution to their patients who have this particular disability. It explains in clear, concise terms such factors as heredity, symptoms, and the importance of proper care by the patient's doctor without delay. It stresses also the importance of periodic check-ups.

BONADOXIN®

STOPS MORNING SICKNESS...BUT





...IT DOESN'T STOP THE PATIENT

BONADOXIN brings relief to 88.1% of patients...often within a few hours.[1,2] But it does not produce drowsiness, or side effects associated with over-potent antinauseants. With safe BONADOXIN, "toxicity and intolerance...[is] zero."[2]

Is she blue at breakfast? Prescribe BONADOXIN. Usually just one tablet at bedtime stops nausea and vomiting of pregnancy...

and just one supplies the full 50 mg. of pyridoxine. ⇐

EACH TABLET CONTAINS:
MECLIZINE HCl 25 mg.
PYRIDOXINE HCl 50 mg.
Bottles of 25 and 100.

References: 1. Groskloss, H. H., et al: Clin. Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957.

...and for a nutritional buildup plus freedom from leg cramps*

STORCAVITE®

phosphate-free calcium, 10 essential vitamins, 8 important minerals. Bottles of 100.

*due to calcium-phosphorus imbalance

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AMA Washington Letter

THE MONTH IN WASHINGTON

Russian advances in outer space have triggered a whole series of debates, not the least of which is the issue of the scope and extent of federal participation in higher education. From it may emerge at the very minimum a scholarship program benefiting pre-medical students and some medical students.

Here are some of the questions that Congress will have to answer before it writes a final bill on federal aid to higher education:

1. Should a program be limited to federal scholarships or should it include grant money for improving and enlarging colleges and universities, or for loans to students?
2. If it is limited to scholarships, should they be non-categorical in nature rather than favoring specific disciplines?
3. If non-categorical and thus benefiting all phases of higher education, how best to justify this approach in the national interest and national security?
4. Finally, if aimed at specific disciplines, should not Congress require some obligation for service on the part of the recipient?

Some of the answers have been given in the administration's plan now before Congress. As outlined by Secretary Folsom of the Department of Health, Education and Welfare, $1 billion would be authorized over a four-year period. The money would go for 10,000 scholarships a year to bright students unable to finance their schooling, for National Science Foundation grants and fellowships for post-doctoral training and up to $125,000 for any one school to improve facilities.

It has been explained that this program would benefit pre-medical students but that since scholarships would be limited to four years, students would have to find other ways to finance most of their years in medical school. After receiving their medical degrees, however, they would be eligible for the fellowships from the National Science Foundation.

The administration program favors the non-categorical approach, although preference would be given high school students with good preparation in math and the sciences. Students themselves would decide what college course to pursue.

This program has met mixed reaction. Educators say considerably more money should be authorized—some asking for as much as four times the proposed $1 billion.

The American Council on Education, which takes in nearly all accredited colleges, universities and junior colleges, told a House Education subcommittee that the 10,000 scholarships are "a minimum below which a program of effectiveness would be doubtful . . ."

The council outlined for the subcommittee these guiding principles:

1. The student should have complete freedom to choose his own program of studies within the requirements set by the individual institution.
2. Stipends up to a maximum amount set generally for the program should be sufficient to enable the student to attend an eligible college.
3. The student should not be denied the opportunity to attend any recognized college or university properly accredited under a regional accrediting association.
4. There should be no discrimination because of race, creed, color or sex.

NOTES: First legislative activity of interest to the medical profession this year was the House Ways and Means Committee's month-long hearing on tax revision; testimony in favor of the Jenkins-Keogh bill was presented late in January.

* * *

National Science Foundation is inviting colleges and universities to apply for financial help in conducting in-service courses and institutes for advanced study by high school mathematics and science teachers. Applications must be received by NSF before March 15.

* * *

A new national organization has been established to help in finding a cure for ulcerative colitis. Encouraged by the National Institute of Arthritis and Metabolic Diseases, the new foundation will use its funds to supplement those awarded by the federal government.

* * *

After six months' operation of the disability payments program under social security, benefits were going to more than 131,000 and totaled $10 million a month. Within the next 12 months the rolls are expected to increase to about 200,000, at an annual cost of about $175 million.

Atomic Energy Commission has in effect reduced its permissible level of life-time radiation exposure by about two-thirds. The safety regulation applies to AEC employes and those of AEC contractors.

* * *

Influential Rep. John Fogarty (D., R.I.) wants the House to ask President Eisenhower to call a White House conference on aging, at which medical and all other problems of the older population would be taken up. Mr. Fogarty also would attempt to interest states in similar conferences, to be conducted prior to the Washington meeting.

STOP respiratory congestion orally

relief in minutes..lasts for hours

In the common cold, nasal allergies, sinusitis, and postnasal drip, one timed-release Triaminic tablet brings welcome relief of symptoms *in minutes.* Running noses stop, clogged noses open—and *stay* open for 6 to 8 hours. The patient can breathe again.

With *topical* decongestants, "unfortunately, the period of decongestion is often followed by a phase of secondary reaction during which the congestion may be equal to, if not greater than, the original condition. . . ."* The patient then must reapply the medication and the vicious cycle is repeated, resulting in local overtreatment, pathological changes in nasal mucosa, and frequently "nose drop addiction."

Triaminic does not cause secondary congestion, eliminates local overtreatment and consequent nasal pathology.

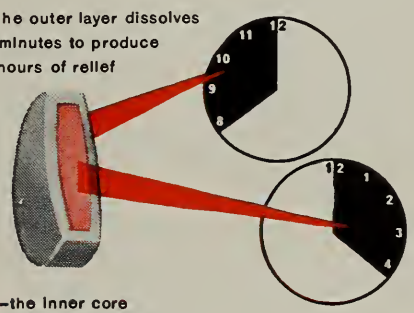
*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

Each double-dose "timed-release" TRIAMINIC *Tablet contains:*

Phenylpropanolamine hydrochloride	50 mg.
Pyrilamine maleate	25 mg.
Pheniramine maleate	25 mg.

Dosage: **1 tablet in the morning, afternoon, and in the evening if needed.**

Each double-dose "timed-release" tablet keeps nasal passages clear for 6 to 8 hours—provides "around-the-clock" freedom from congestion on just three tablets a day



Also available: Triaminic Syrup, for children and those adults who prefer a liquid medication.

Triaminic®

"timed-release" tablets

STOP *running noses...* *and open stuffed noses* *orally*

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AMA News Notes

NEW GENERAL MANAGER

A realignment of executive duties at the American Medical Association went into effect January 1. Dr. George F. Lull took over the position of assistant to the president. Dr. F. J. L. Blasingame of Wharton, Texas, assumed responsibility for over-all administration with the title of general manager.

Dr. Blasingame has been active in medical affairs, both at the state and national levels, for many years. Since 1949, he has been a member of the AMA Board of Trustees, and in 1955 he served as president of the Texas State Medical Association.

In his new job, Dr. Lull will relieve the president of many of the burdens of that office in addition to serving as secretary of the Association. He will act as a special ambassador of the medical profession in cities and towns throughout the country. Dr. Lull joined the AMA staff in 1946 after serving 34 years in the Army. His last position before Army retirement was as deputy surgeon general.

DOCTOR PLACEMENT "SUCCESS STORIES" CITED

How a local Grange led a community-wide campaign to attract a doctor and how a state medical society promoted the services of its doctor placement service are constant reminders of the work being carried on throughout the country to match communities needing a doctor with physicians seeking a suitable place to practice medicine. Typical community success story which has been brought to the attention of the AMA's Placement Service recently is that of Windsor's Cross Roads, N. C.—population, 125 families.

Here the thirty-member Grange organized a Community Development Organization to raise funds for a six-room medical clinic and encouraged Dr. Irvin G. Sherer and his wife to settle there after his discharge from the Navy. For its efforts in this project, the local Grange won the $1,000 first prize in the North Carolina State Grange Community Service Contest and placed fourth in the National Grange contest. All of the credit for this community's success goes to its citizens. The Medical Society of the State of North Carolina placement service simply sent Dr. Sherer a list of vacancies, and the citizens of Windsor's Cross Roads did the rest.

An example of how a state medical society promoted its doctor placement service is that of the Medical Association of the State of Alabama. A story last July in the *Birmingham News*—which later was written into the Congressional Record—points up the fact that 42 communities in the state need doctors and that young doctors oftentimes cannot afford to settle in small towns without some financial assistance. The article cites cases where communities have induced doctors to come to their areas by providing clinics, equipment or rent-free housing for the first years. In addition, the article explains how the placement service operates—emphasizing the fact that the society acts as a clearing house but that "it's up to the town and the doctor to get together."

NEW TV HEALTH FILMS PREPARED

The American Medical Associaion announces that two new 10-minute films will be available about February 1 for use on local television and for showings to school and church groups. "The Silent Killer" deals with the dangers of carbon monoxide poisonings from gasoline exhausts. "Out of Step" tells the dramatic story of an accident which occurs to a child whose father has always ridiculed safety measures, first aid and other so-called "boy scout" ideas. The Scouts, of course, come to the rescue in the end!

Both of these black-and-white sound films are available on loan to medical societies, local television stations (with medical society approval), health departments, voluntary health agencies and schools. Only charge is for return shipping. These films were developed by the Bureau of Health Education and produced by the Marshall Organization. W. W. Bauer, M.D., Bureau director, serves as narrator.

AUXILIARIES VIE IN "TODAY'S HEALTH" CONTEST

The annual *Today's Health* subscription contest for medical auxiliaries throughout the country again is underway. The contest—jointly sponsored by the Woman's Auxiliary to the AMA and *Today's Health* magazine—is open to all state and county auxiliaries. A total of $480 in cash prizes will be awarded to the winning state and county groups. The contest closes April 30, and winners will be announced at a special honor breakfast during the Woman's Auxiliary national convention in June in San Francisco.

MORE MEDICAL PRACTICE BOOKLETS OFFERED

Additional copies of the booklet—"A Planning Guide for Establishing Medical Practice Units"—currently are available from the American Medical Association to state and county medical societies for use on a loan basis to individual physicians. Edited by the AMA and published through a Sears-Roebuck Foundation grant, this booklet originally was distributed to medical societies on a limited basis. However, if the copies now on file in medical society libraries have been mutilated or destroyed, requests for additional copies may now be filled. Requests should be directed to the AMA's Council on Medical Service.

PR REPORT

ORIGINS OF SELF-REGULATION IN MEDICINE

By Gaylord S. Bates, M.D.

From years of acquaintance with medical students and hospital staff residents, I have learned of their interest in the practice of medicine as it is touched by law and by questions of moral judgment. I have also been aware of their ignorance in these matters for little or no attempt is made to instruct them formally. It has seemed to me that we teachers must convince them of the obligations to society that go with the privilege of practice as represented by licensure; obligations spelled out in law. It has been my opportunity on occasion to introduce them to our code of ethics and then to the awesome world of organizations in medicine. Every one of these associations of physicians, from the hospital staff through the County Medical Society to the national organizations, whether the American Medical Association or a specialty scientific body, has an expressed idealism and moral code. I have wanted these students to feel that it is not enough to stay within the law; that the idealistic efforts of our medical organizations are a necessity to maintain the high standing of our profession in society and that they must support them. Their questions have reflected some skepticism over our medical idealism which is expressed in a code of ethics and a relentless effort to raise the standards of medical practice. The most cynical have charged that our idealism is economic self-interest in fact, sweetened on occasion by the spirit of the "do-gooder." To be convinced and to be convincing, I have sought in history for the origins of our professional ethics, and our relationship to society as expressed in laws governing the practice of medicine. The two are closely related, have their own realms of activity, and are always in uneasy balance.

Henry Sigerist, medical historian, wrote this paragraph in his book "Man and Medicine": "The physician's profession gives him power. The physician knows poisons. Chemical, physical and biological forces of high potency are placed freely in his hands. The physician enters all homes on the strength of his profession. Secrets are divulged to him, and they give the physician power over the patient. Society tolerates the physician and honors him because it urgently needs his counsel and his help, but it has always endeavored to protect itself from abuse of the physician's power by establishing standards of medical behavior. The standards originate in three different spheres: Government, medical profession, and individual conscience."

First of four installments of Dr. Bate's presentation to Detroit Academy of Medicine, November 12, 1957.

PUBLIC RELATIONS BEGINS IN THE DOCTOR'S OFFICE

Excerpts from a paper by
R. Wallace Teed, M.D., Ann Arbor
Chairman, MSMS Public Relations Committee

Medical public relations depend on the contacts which the doctor makes with the public, and on the impression that he makes on people. Of course, physicians meet people socially at church, club or other places. Here the public gets some impression of the physician as a human being, and if this be favorable, it is certainly an asset in the totality of medical P.R.

It is in the office, however, that the public has its chief opportunity to judge the physician from a medical standpoint, and it is here that medical P.R. stands or falls. Everything that happens in the office contributes to this opinion, and each person's reaction adds up to the general estimation not only of the individual physician, but of the medical profession as a whole.

It would be going too far to say that if every physician consciously strove to make "satisfied customers" of all his patients, our Public Relations Counsel and program could be eliminated, but it is a fair statement that if they did so the work of this group would be vastly more easy.

WHITEHALL 4-1500 NOW AVAILABLE

"What doctors do as a group is sometimes more important than what they do individually . . ." This is the theme of an engrossing dramatic film, "Whitehall 4-1500," presented by the American Medical Association. The title refers to AMA's national headquarters' telephone number in Chicago . . . the number has very special significance to anxious parents whose child is suddenly and mysteriously stricken . . . to Maple Grove, the town that was too small to have a doctor . . . to the highway patrolmen at the scene of an accident that shouldn't (and needn't) have happened. These are some of the dramatic situations, described by John Cameron Swayze in a film that tells in broad human terms something about an organization to which more than 165,000 doctors belong. It went into community and TV release January 1, 1958, and is available on loan from AMA in Chicago.

I See By The Papers

LOCAL PR NEWS

(Local events of medical public relations interest gathered from the statewide press)

The Grand Traverse-Leelanau-Benzie Medical Society, at its December annual meeting, voted $150 toward the purchase of toboggans, first-aid equipment or any other supplies needed by the Grand Traverse Ski Patrol. The teams all have been trained in first aid and rescue operations and serve as a safety force to prevent accidents before they happen at local ski slopes.

* * *

In Kalamazoo, a local doctor of medicine appeared in Municipal Court displaying self-inflicted cigaret burns to show that marks on the arm of a two-year-old child were made by cigarets and not by grease. The physician told the court that he had used novocaine in the experiment, implying that without such a drug, the child must have suffered great pain. The boy's father was being held on torturing and child neglect charges.

* * *

Doctors of medicine in the Marquette area will begin co-operation with the Michigan-Cornell Automotive Crash Research Project soon by completing a brief medical report form describing the injuries of patients who are accident victims. The reports are correlated with the Michigan State Police accident reports and photographs before submission to Cornell University for statistical analysis. Participating in the project are the Michigan State Medical Society, the Michigan Department of Health, the Michigan Hospital Association and the Michigan State Police.

* * *

The Woman's Auxiliary to the MSMS announced in December that it would actively promote the formation of regional science fairs in Michigan. Mrs. Robert E. Reagan, of Benton Harbor, president-elect, said that her organization believed the science fair idea to be a logical extension of its active interest in recruiting young people for the medical profession and related fields.

* * *

Honor guest of the Jackson County Medical Society at its November annual meeting was MSMS president George W. Slagle, M.D., of Battle Creek, who presented an after-dinner address on "The Challenge of Modern Medicine."

* * *

On January 8, a premiere showing of the new MSMS color film, "Something Called Epilepsy," was held for a special audience of more than 200 guests at the Veterans Memorial Building in Detroit. The program was arranged by the Michigan Epilepsy Center with speakers George W. Slagle, M.D., MSMS President, and Lyle Koran, M.D., head of the Epilepsy Center.

HAVE STETHOSCOPE, WILL TRAVEL

The doctor may have been kidding—partly—when he suggested that there would be an opportunity for some physician if he would close his office, devote all his time to making home calls for patients, and put a sign on his car:

"HAVE STETHOSCOPE, WILL TRAVEL."

The notion was suggested last week in *Detroit Medical News,* official publication of the Wayne County Medical Society, by Dr. James J. Lightbody who writes a column called "Rant and Rave."

Sometimes the column is just fun. But sometimes "Rant and Rave" tackles some of the serious problems that involve medicine, and by throwing in some tongue-in-cheek remarks, it manages to deal with a lot of matters that otherwise might not be brought up.

Tackling the matter of house calls, and the repeated complaints by patients that the doctor wants the patient to go to the office instead of the doctor going to the patient, Lightbody tossed in some of his usual quips, but he also admitted that he spoke only in jest when he wrote:

"Believe it or not, there are a number of doctors in practice in this city who are very anxious and willing to make house calls and who feel so strongly that house calls will always be a necessity, that they are about ready to devote their entire time to this activity because of the great public demand."

As to anybody actually devoting all his time to house calls, Lightbody admits that this is just a bit of hyperbole, so far as he knows. But he does know that some doctors are taking the "house call problem" seriously.

The Times, hunting up some of them, found that some would talk on the record, and some wouldn't. One who wouldn't let his name be used—but will make house calls—said:

"There are house calls that are necessary, and I try to make them.

"I would estimate that I probably average about 30 a week. More when there is an epidemic of flu or something of the sort going around.

"When I started working with my own regular patients and I do a good deal by telephone. Somebody has a pain in the chest and is short of breath.

"If I know the person is subject to nervous spells, and that his heart is perfectly healthy, I can allay his fears.

"If it's a case involving a child, frankly I prefer to ask whether it isn't possible to put him in the car and bring him to the office.

"I think my patients and I are getting along very well.

"But let's face it, people can be unreasonable, too. Take this one. My secretary said some people wanted me to go to the house. I went as soon as I was free to go—about noon—and when I got there they said, 'Oh, we don't need you. We called another doctor.'

"By supper time they were calling again, so I went again. It turned out that the other doctor they'd called hadn't arrived so now they wanted me. It wasn't any great emergency—flu.

"So I asked if they'd called the other doctor to cancel the call. No. So I said, 'All right, get on that phone and TELL him.'

"For another sort of problem, what about this? Some people called because a man was in a diabetic coma. Where does a patient like that belong? In a hospital! But no, they wanted a house call.

"Those are some of the unpleasant cases. People have got to learn to do their part, too. It isn't all just a matter of expecting the doctor to come the minute you call.

"In my own mind, however, house calls should be made and I think people appreciate it when you make the call. It's not unusual for them to say 'Thank you for coming,' and that means something.' "

That particular doctor scales his fees for calls according to the distance he has to travel, especially since some patients have moved out to the suburbs, the charge usually running around $6, $7 or $8. He added:

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why wine in Cardiology?



For generations without number wine has been extolled as an "effective stimulant" and, therefore, valuable aid to treatment in various types of cardiovascular disease. It was this peculiar property, no doubt, which prompted the poet, Salerno, some 800 years ago to write—"Sound wine revives in age the heart of youth."

Now, as a result of modern research, we are obtaining concrete evidence of the favorable physiologic action of wine to lend support to the empiricism of ancient usage.

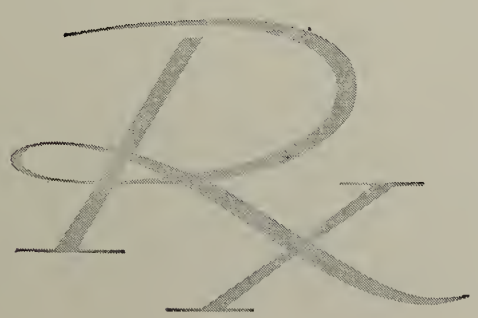
Both brandy and wine in moderate quantities have been found to substantially increase the pulse rate and step up the stroke volume of the heart.

Wine has been found to aid drug therapy in relieving the pain of angina pectoris and obliterative vascular disease.

Moreover, aside from the purely hypotensive actions of wine, its unquestionable euphoric effects help counter the depression, apprehension and anxiety so frequently present in sufferers from heart and coronary disorders.

The beneficial actions of wine appear to transcend those of more concentrated alcoholic beverages—valuable cardiotonic properties having been attributed to the aliphatic aldehydes and other nonalcoholic compounds recently isolated from certain wines and grape varieties.

It goes without saying that the use of alcohol, even in the form of wine, is contraindicated in hypertension accompanied by certain types of renal disease.



For a discussion of the many modern Rx uses for wine, write for the brochure, *"Uses of Wine in Medical Practice"* to Wine Advisory Board, 717 Market Street, San Franciscio 3, California.

Editorial Opinion

The following two editorials from *Detroit Medical News,* are being reprinted, with the belief that they have a grasp of our economic future:

OPINION SURVEYS

Two opinion survey questionnaires on prepaid medical care plans reached most Michigan physicians last week. One, sponsored by the Michigan State Medical Society and the Michigan Health Council, is designed to learn what kinds of prepaid medical care the public really wants and is willing to pay for; the other, sent from MSMS Headquarters to doctors only, attempts to determine how doctors feel about the philosophies and operational methods of Blue Shield and other voluntary plans for providing medical care coverage. The sponsors of these surveys hope, as Dr. George W. Slagle, MSMS President-Elect has said, that "with knowledge of what the public really wants, with knowledge of what most people are willing to pay for, and with these knowledges weighted by our own medical knowledge of public needs and what is actually possible . . . we can arrive at the most attactive plan consistent with the public interest. . . ."

Many doctors regard opinion surveys with suspicion. Even on simple questions, interpretation is fraught with hazard as the defunct *Literary Digest* learned in 1936 and as Messrs. Crossley, Gallup and Roper discovered in 1948 and again in 1952. And public opinion surveys—even though few soldiers accepted the army finding that hot dogs were their favorite food—influence public opinion. Many remember the cleverly designed questionnaire distributed by Great Britain's Ministry of Health in 1948 which broke the doctors' resistance to socialized medicine. Some feel that the 1948 surveys in this country contributed to Mr. Dewey's defeat by making him and his supporters over-confident.

The validity of a public opinion poll depends upon the size of the sample, its representativeness, the wording of the questions, and unbiased analysis of the answers. Use of emotionally charged words, compound phrases where one part is acceptable and the other not, and lack of opportunity for coding answers not listed, lead to confusion.

No one can criticize the sampling technique used in the "Doctor Opinion Survey on Prepaid Medical Care Plans": it was sent to every MSMS member. It is not completely free of other defects, however. It speaks, for example, of "reputable" *(emotionally approved)* insurance companies. It asks a question about "outpatient diagnostic benefits" and the answers all involve "treatment." It presents many compounded-complex choices for coding, and often fails to provide for other, unlisted solutions. Its length and the few days allowed for completing it may reduce the number of returns significantly.

In spite of its defects it is an extraordinary questionnaire and merits the attention of every practicing physician. In six pages it outlines most of the fundamental problems involved in prepaid medical care programs with many proposed solutions. Each physician has been urged to complete this questionnaire to make his opinions known to the House of Delegates. But its chief value may lie in clarifying our individual thinking about prepaid medical care programs and in resolving our personal inconsistencies.—Milton R. Weed, *Detroit Medical News,* August 5, 1957.

A SONG OF CASSANDRA

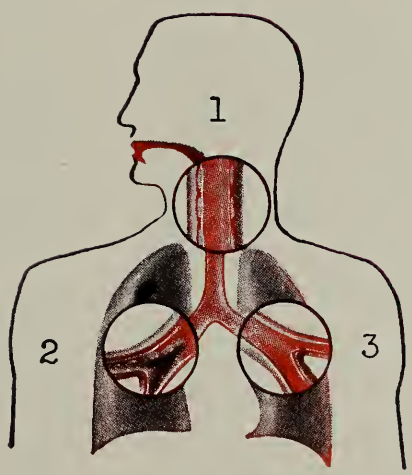
The annual meeting of the House of Delegates of the Michigan State Medical Society will be held in Grand Rapids, September 23-24, 1957. Nearly every meeting of the House is important, next month's could be one of the most vital and significant sessions in a decade. The future of Michigan Medical Service, that bulwark against state control of the practice of medicine, might well be strengthened or weakened by the actions of the Delegates at that convention. All of us appear quite calm at this critical period. Is it the calm before the storm—or are we sailing on the Sea of Apathy?

Until today the profession has had the ability to solve the complex socio-economic matters which have arisen to beset the practice of medicine since the days of the horse and buggy doctor. This talent is dwarfed by the tremendous strides made in the science of medicine. A factor in this is the eagerness of the doctor to look for the latest in the science and his antipathy to anything different in the mechanics of the practice. And there are too many members in private practice who indulge the generosity of letting someone else take care of these matters. "He likes that sort of thing and I don't—it certainly is nice that our Society has men like him—let's be sure to vote for him, or else one of us might have to do some of that scout-work," are some of the lyrics to that old refrain.

The concept that leadership is provided by the officers and delegates is inane. Medical leaders and medical politicians (the leaders are the ones you like and the politicians are, ahem) give time, talent and money to work for the betterment of the profession. They are the members

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breaks up cough*



*Drawing shows how 3-pronged attack of Pyribenzamine Expectorant with Ephedrine breaks up cough by: (1) reducing histamine-induced congestion and irritation throughout the respiratory tract; (2) liquefying thick and tenacious mucus; (3) relaxing bronchioles. Pyribenzamine Expectorant with Codeine and Ephedrine also available (exempt narcotic). Pyribenzamine® citrate (tripelennamine citrate CIBA). C I B A

A SONG OF CASSANDRA

(Continued from Page 192)

who are most aware of your majority will and philosophy. You don't do what they tell you to do; they seek to do what you want done! This is as it should be in the democracy we *still* live in.

Our feeling of impending catastrophe is strong. For this reason: there appears to be a serious chasm between the average member and the officers and Delegates of the State Society. The latest and most vivid example of this is in the need for the questionnaire sent to every member. It was voluminous and expensive. It's a bargain if it is fruitful as a guide to our officers and delegates. It will not correct the dilemma of inadequate liaison. This vital question remains: How can a full and adequate discussion of the problems of medical economic affairs *in which every practitioner participates* be achieved? England was unable to find the answer. Her doctors had little interest in medical economics until 1948. Now this problem is the principal subject.

Oh, well, it can't happen here!—Ralph A. Johnson, *Detroit Medical News,* August 19, 1957.

OUR JOURNAL QUOTED

The North Carolina Medical Journal, for October, 1957, has two editorials:

For Safer Highways

This is a very good editorial from which we quote: "It is fitting that the medical profession of Michigan, where most automobiles are made, should take special interest in traffic control. The Michigan State Medical Society has formed a Committee on Study of Prevention of Highway Accidents. The September issue of the state *Journal* is devoted to traffic safety. The leading editorial, by Dr. J. R. Rodgers, chairman of the committee, points out that the problem is not as bad as it has been painted. When based on the number of vehicle miles, it is two and a half times as safe to be on the highways as it was in 1934 and 1935. While it is true that 38,000 were killed on the highways in 1955, the number would have been 95,000 at the 1935 rate. If, however, the estimate of the experts that within the next 10 or 15 years there will be an increase of 45 per cent in vehicle mileage comes true, "we shall have to reduce the accident rate by nearly 50 per cent from what it is now in order even to just stand still!"

The Speeding Ambulance

This second editorial refers to our Traffic Safety Number of the Journal of the Michigan State Medical Society. September, 1957, and the article "The Speeding Ambulance" by Drs. George J. Curry and Sydney N. Lyttle of Flint.

GP, the *Journal* of the American Academy of General Practice, devotes a two-page article, "Extensive Study Results in Michigan's Broadenes Blue Shield Plan referring to our Market Opinion Survey, to the Reuther speech, to the Slagle report, the Owen report and the Reference Committee report by Dr. Lichter. It also mentions the revival of interest in Michigan in the relative value scale for a basis of service benefits, and refers to a number of the general practitioners who were active in the study: Arch Walls, M.D., Joseph F. Beer, M.D., John S. DeTar, M.D., and Max Lichter, M.D. It is a very interesting and readable article.

HAVE STETHESCOPE, WILL TRAVEL

(Continued from Page 190)

"Let's be blunt. I could make more money by not going, but that's not the way I feel about things."

Another doctor, one of the older men, feels much the same, but tries to limit his house calls to from one to three a day, usually in the morning before office hours start. He also finds that knowing his patients and using the phone saves a lot of running, and estimates that he has at least one phone conversation per office visit. He thinks he can usually "just about tell" about a case by a phone call—provided he knows the patient.

If a patient is unconcious, or hemorrhaging, or in violent pain, he believes that calling an ambulance should be automatic. If a case is that severe, the hospital is the place to go, and a house call is wasting time.

And, calling spades spades, he finds that it pays to be cautious when strangers call up demanding a house call.

Sometimes the flat question, "When was the patient drunk last?" will result in bringing out the truth: that somebody just has a hangover.

Again, calls from strangers sometimes turn out to be calls from deadbeats who use the cry of "emergency" to get a different doctor each time.

Again, the protection for both patient and doctor is to have a regular physician. He adds:

"I like it when I get a call from someone saying, 'I'm new in this neighborhood and we don't have a doctor. I don't need anything done now, but I'd like to call on you when I do need care.' It's as simple as that.

"And you can quote me as saying 'very definitely yes,' if you ask whether there is a need for house calls. It is part of our service.

"I know, in fact, of some of the keen young men who are willing to make house calls, and even some specialists who are doing it."

Dr. Louis J. Bailey, president of the Wayne County Medical Society, says he thinks there may even be a trend in the direction of doctors taking more interest in house calls—with the proviso that patients co-operate, by not demanding house calls unless they are really necessary.—Jack Pickering in *Detroit Times,* November 24, 1957.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of the Council

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Grand Rapids, a Growing Medical Center

By G. Edward Braunschneider, M.S., M.D.
Grand Rapids, Michigan

THE FIRST GRADUATE of a recognized medical college to establish a practice near the Grand River rapids was Dr. Stephen A. Wilson, who arrived there in 1835. He found a cluster of rough wooden cabins, with a population of seventy-five to one hundred Caucasians, and two large encampments of the Ottawa Nation of Indians. From this humble beginning, the great City of Grand Rapids has developed during the ensuing 123 years, becoming a modern medical, industrial, and trading center of national importance.

Grand Rapids was originally contained within the deep, broad valley of the Grand River. Long ago, the city grew out of the valley, to embrace much of the surrounding countryside. Greater Grand Rapids today provides a home and living for approximately a quarter-million people, with the population increasing at three per cent per year. More than 100,000 persons are cared for annually, either as in-patients or out-patients, in the established medical facilities, exclusive of physicians' offices and private clinics. Approximately 11,000 infants are born here each year. Patients journey to Grand Rapids from every state in the nation, and from as far away as Puerto Rico and the Virgin Islands.

General Hospital Facilities

The general hospitals of any community are at once the centers of medical progress and the best indices of medical standards. Grand Rapids has three general hospitals, with a total capacity of 1,068 beds and 185 bassinets. Together, they render care to 51,000 in-patients annually, and to nearly the same number of out-patients. All three have active rotating internship programs and approved residencies in nearly every facet of medical effort. These programs are planned in co-operation with the faculty of the University of Michigan Medical School. Each of the hospitals maintains a twenty-four-hour emergency service for accident victims, and free clinics for the medically indigent. Each conducts its own training school for registered nurses, and participates in the community program for training practical nurses.

The largest of these institutions is Butterworth Hospital, founded in 1873 as a project of the local Episcopal Church. Today, under non-sectarian administration, it has grown to a capacity of 416 beds and sixty-five bassinets, and cares for over 20,000 in-patients annually. Butterworth is the only general hospital in the community with a fully equipped section devoted to acutely psychotic patients, and cares for about 250 of these people yearly. Several years ago, a cobalt bomb was installed for cancer therapy. One of the latest additions to the equipment is a Mörch positive-pressure respirator, the only one in western Michigan. The attending staff is composed of more than 300 physicians (including board members) in nearly every specialty. The Emergency and Out-Patient Departments care for approximately 16,000 persons each year.

St. Mary's Mercy Hospital was founded in 1893 by the Catholic Sisters of Mercy, who continue to maintain the hospital today. Repeated expansions,

culminating in a $2.5 million addition in 1955, have brought the capacity to 333 beds and fifty-eight bassinets. Approximately 14,500 in-patients are treated annually by 180 staff physicians, including fifty-five generalists and specialty board members from nearly every field. The most modern equipment is in use throughout the institution, including facilities for radio-isotopes. One of the eight operating rooms is equipped with an overhead maneuverable x-ray unit, of inestimable value in direct operative cholangiography and orthopedic surgery. The Emergency and Out-Patient Departments treat 15,000 persons yearly. Complete laboratory service, including steroid, protein-bound iodine, and electrophoretic analyses, is available.

Blodgett Memorial Hospital is the only local institution to claim the honor of having treated Civil War casualties evacuated from the fields of battle. The hospital came into being through the Union Benevolent Association, a group of public-spirited citizens who banded together about 1846. Later, a generous endowment by John W. Blodgett made possible the construction of the present main building. In 1953, a large addition brought the capacity to 319 beds and sixty-two bassinets. Over 15,000 in-patients and 12,500 out-patients are treated each year. The equipment is thoroughly modern, and includes a new hypothermic unit of great value in certain surgical procedures. Complete laboratory, electroencephalographic, and x-ray facilities are provided. The attending staff is composed of 315 physicians, including forty generalists. An active research program, begun in 1951, has gained impetus during the last three years, and a variety of investigative projects are currently under way.

Specialty and Restricted-Admission Hospitals

The Mary Free Bed Guild Children's Hospital and Orthopedic Center is also a creation of the Union Benevolent Association. The unusual name is derived from a fund-raising campaign of many years ago, in which everyone having a friend or loved one named Mary was asked to make a contribution to defray the cost of maintaining one charity bed at Blodgett Hospital. The final result was a separate 140-bed hospital, now administered by the Mary Free Bed Guild and devoted exclusively to the care of crippled and chronically-ill children. About 540 children are treated here each year, including victims of poliomyelitis, cerebral palsy, rheumatic fever, and orthopedic diseases. The physical, educational, spiritual, and recreational aspects of child care are all given due attention. The Michigan Crippled Children's Commission has made this hospital the Orthopedic Center for western Michigan. Children from every county in Michigan, and from twenty-eight other states have received treatment here. The attending staff, representing all specialties concerned in the treatment of chronically-ill children, is composed of sixty-eight well-qualified physicians.

In 1955, a training course for doctors, physical therapists, and occupational therapists, dealing with the care of child amputees was begun. Mary Free Bed Hospital has repeatedly received national recognition for its many pioneer programs.

The Ferguson-Droste-Ferguson Hospital is a 100-bed institution dedicated to the practice of proctology. This unique hospital was formed by three physicians as a private clinic in 1929. Ten years later, the hospital was moved into a former hotel building. All ancillary services have now been added to the facilities, each headed by a qualified consultant. In 1952, the hospital was transformed into a non-profit corporation, administered by a board of interested citizens. A two-year approved residency in proctology is available to physicians who meet certain qualifications in general surgery. Patients and physicians come to this unusual proctological hospital from many parts of the world, for it is internationally recognized as a leader in this work.

Pine Rest Hospital and Sanitarium was founded in 1911 as a private, Christian-oriented retreat for those who do not wish to avail themselves of the state hospital facilities. The institution is owned and directed by the Pine Rest Christian Association, a 65,000-member organization composed of several denominations of Calvinist persuasion. No federal, state, or Red Feather monies are accepted, and admission is limited to members of supporting church groups. The in-patient capacity is 555 beds, and approximately 500 patients are admitted annually. The institution is divided into four functional units. The Psychopathic Hospital is a 208-bed unit devoted to treatment of mentally disturbed patients. The Sanitarium provides care for 113 persons with less severe mental illness. The Psychiatric Home for the Aged has 115 beds. The Children's Retreat and Training School provides facilities for 120 mentally handicapped in-patients and sixty-five out-patients. The latter are transported daily from their homes in

a fleet of station wagons. Special speech training and reading training are included in the curriculum. The complete institution employs a staff of 230 persons, including psychiatrists, internists, psychologists, and specially trained teachers.

Kent County Receiving Hospital was established in 1907 as the first psychiatric hospital in western Michigan. Although limited to twenty-eight beds, about 500 adult psychotic patients are accepted yearly. Patients are classified into three groups: (1) those awaiting transfer to other psychiatric hospitals, (2) patients selected for short-term intensive therapy, and (3) a few private patients. Electroshock therapy has been employed since 1948. No attempt is made to provide care for children or for out-patients.

The Michigan Veterans Facility has been in existence since 1885, providing domiciliary and hospital care for physically disabled, unemployable, and chronically ill war veterans and their dependents. Situated on 132 acres of wooded land along Grand River north of the city, the Facility cares for approximately 1,000 persons at one time, including 260 hospitalized patients. Specialty clinics are conducted regularly at the Facility by personnel of Blodgett and Ferguson-Droste-Ferguson Hospitals. Dietary care, physiotherapy, and other customary hospital services are included. Requirements for admission are: (1) ninety days or more active wartime military service; (2) five years legal residence in Michigan, or entrance into the armed services from this state; (3) honorable discharge; (4) freedom from communicable disease; and (5) "soundness of mind." Male and female veterans are given equal consideration. Seventy-five per cent of the current population is composed of World War I veterans. The federal and state governments, and when possible the veterans themselves, share in the expense of maintaining this excellent institution.

In 1907, the City of Grand Rapids established Sunshine Hospital for the care of tuberculosis victims, and in 1952, the hospital was deeded to Kent County. Nearly all the present buildings have been constructed since 1922. The 210 beds are available for the long-term care of tuberculous patients, when the diagnosis is certified in writing by a health officer or private physician. If tuberculosis is suspected but unproven, a patient may be admitted for a fourteen-day period of study, and time extensions may be granted. The state government and county of legal residence of the patient share in the expense of treatment, while the Veterans Administration pays for care of service-connected cases. Facilities for in-patients include complete medical care for tuberculosis, with minor surgical and ordinary medical care of co-existing conditions. When a non-tuberculous condition requires more involved care, this is provided at the general hospitals at county expense. All customary hospital services are provided. Pulmonary function studies, bronchoscopy, dental care, and ophthalmological care are also available.

In 1957, certain changes were made to provide ordinary medical care of non-tuberculous indigent patients. Sunshine Hospital also conducts an active out-patient department, including the following: (1) x-ray diagnosis and medical supervision of the City-County Tuberculosis Clinic; (2) follow-up diagnostic service for the above clinic, and for the Kent County Tuberculosis Society Mobile x-ray (Christmas Seal) service; (3) diagnostic service for suspected tuberculosis patients referred by private physicians or health agencies; (4) post-hospitalization follow-up; and (5) post-hospitalization chemotherapy and collapse therapy.

In 1955, Grand Rapids pioneered in the establishment of the Alcoholism Rehabilitation Center. This fifteen-bed hospital provides in-patient care for males only, with out-patient care for both men and women. Sponsored jointly by the city, county, and state governments, this small hospital is devoted to the concept that alcoholism is a disease. Direct administration is a function of the Grand Rapids Health Department. Problem drinkers are eligible for care on recommendation of a health officer or private physician, provided they are sober and free from communicable disease when admitted. The Center works closely with Alcoholics Anonymous.

The Salvation Army Evangeline Home and Hospital provides shelter and obstetrical care for nearly 200 unwed mothers each year. Most patients are residents of western Michigan and northern Indiana, but they may come from anywhere. The majority are admitted six to eight weeks prior to expected delivery, but girls may enter much earlier when circumstances make it advisable. Obstetrical care is rendered by resident physicians from the three general hospitals, with their respective Chiefs of Obstetrics serving as consultants. Pediatric care is supplied by local physicians. Teachers from the Grand Rapids Board of

Education visit the home and provide continuing education for mothers of high school age.

Patients are asked to pay a nominal fee for their board and room only if they are able to do so. The Community Chest, state and private agencies, hospital insurance carriers, and the Salvation Army itself support the home. The mother is free to keep her infant if she so desires, or she may place it with one of the adoption agencies after approval of the Probate Court. These agencies are the D. A. Blodgett Home for Children, the Catholic Service Bureau, and the Bethany Christian Home.

Maple Grove Hospital and Home, and the County General Hospital provide care for 276 indigent persons, including 197 hospitalized patients, under the auspices of Kent County. Those who are physically able, work on a county-owned produce farm which helps to provide food for the Home and Hospitals. A total of ninety-eight employes, including four part-time physicians, provide care and supervision. Oxygen therapy and chest fluoroscopy are available.

Out-Patient Facilities

Numerous instances where Grand Rapids hospitals provide out-patient care have already been discussed. However, several institutions are devoted exclusively to the care of out-patients, and make an immense contribution to medical care in the community.

The Armen S. Kurkjian Center, administered by the Grand Rapids Rehabilitation League, was opened in 1954. Since that time, more than 800 physically handicapped individuals have been assisted to more productive lives. Facilities consist of a Curative Workshop and a Sheltered Workshop. The former provides physical and occupational therapy, under prescription of the patient's own physician, for adults with bone, joint, and neuromuscular disabilities. All equipment is ultramodern and is employed by trained physical and occupational therapists. The Sheltered Workshop provides gainful employment for twenty handicapped persons, including victims of cerebral-vascular accidents, epilepsy, cerebral palsy, heart disease, and multiple sclerosis. This division consists of a small factory, run as nearly as possible to conform with working conditions in a standard manufacturing plant, and is intended to fill the gap between treatment and re-employment. Of the forty handicapped persons who have joined the project, ten have been re-employed in competitive industry.

In 1946, the Area Child Amputee Center was established as the first program in the United States dedicated to training amputee children. The purpose of the Center is to prescribe, fit, and train child amputees in the use of prosthetic devices for upper and lower limbs. The length of the training period varies with the age of the child and his degree of disability. The Center is located in the Mary Free Bed Hospital building, and co-operates closely with that hospital, Blodgett, and St. Mary's Hospitals. Since its inception, the Center has aided 440 children, and has a current active case load of 190. The state supports the program for its residents, while the federal government supplies funds for care of children from out of state. Visitors to the Center include doctors, nurses, physical therapists, social workers, medical administrators, and prosthetists from many states and foreign countries. The Mary Free Bed Brace Shop, located a short distance from the hospital, makes prostheses and orthopedic appliances on prescription.

Also located in the Mary Free Bed Hospital building is the Rheumatic Fever Clinic. Patients may be sent here for consultation when this illness is suspected.

The Cancer Detection Center, financed by the American Cancer Society and administered by the Kent County Medical Society, was opened in 1946. The objective is to demonstrate to adult patients the type of examination which they should seek each year in the office of their own physician. In addition to a thorough physical examination, they receive a complete blood count, urinalysis, chest x-ray, and Papanicolaou smear of the cervix. Approximately 500 persons are examined yearly, with nine to twelve new cases of cancer being discovered. Members of the medical society conduct the examinations on a rotation basis, aided by laboratory technicians from the Michigan Department of Health. Smears are read by pathologists at the general hospitals, and a complete report of findings is sent to the patient's private physician. Since the Center was opened, 4,850 patients have been examined. No patient is seen more than once.

Grand Rapids is indeed fortunate in having a branch laboratory of the Michigan Department of Health. This unit has provided diagnostic assistance to health departments and private physicians

of twenty-eight counties in the western lower peninsula since 1926. The present attractive building was opened in 1953. Through the years, services have varied with the changing problems of medical care. In the fiscal year ending June 30, 1957, 496,000 examinations were performed, including 135,000 for syphilis and 21,000 for tuberculosis. Also, 52,000 examinations of milk and 15,000 of water were performed. All reports, except those of well water, are given only to health departments or the patient's physician. In a few instances, specimens are forwarded to the main laboratory at Lansing, or to the U. S. Public Health Communicable Disease Center in Georgia. Michigan's Health Department is one of the very few to manufacture biological products on a large scale for free distribution to health departments and to private physicians. General clinical laboratory services are also performed for Sunshine Hospital, County General and Maple Grove Hospitals, the Michigan Veterans Facility, the City and County Clinics, and the Cancer Detection Center.

The Grand Rapids Child Guidance Center is supported jointly by the state government and Red Feather contributions. Opened in 1945, the clinic annually gives care to 450 emotionally troubled children. The professional staff includes three part-time psychiatrists, one clinical psychologist, and eight psychiatric social workers. Any child, from infancy through high school age, is eligible for assistance. An attempt is made to work with the parents in helping them understand the child's difficulty, or in helping them understand their own problem in relation to the child. When indicated, school teachers and others associated with the child are offered assistance in understanding him.

The Kent County Mental Health Center has provided assistance to over 200 persons since it was opened one year ago. Only adults whose financial resources do not permit private attention, are eligible for treatment. The profesisonal staff includes a psychiatrist, a clinical psychologist, and a psychiatric social worker. The state and county share in the expense of maintaining the clinic, and when possible the patient is asked to pay a small part of the cost of treatment. Patients may be referred by any physician or appropriate agency.

Special teaching facilities for the handicapped also deserve mention. The Orthopedic School is a part of the city school system, and provides education for children with heart disease, renal disease, and epilepsy, in addition to orthopedic diseases. In this program, 167 children are transported to school daily by taxi. Specially trained elementary teachers work in co-operation with occupational and physical therapists. The Oral School for the Deaf, also under the Board of Education, serves about fifty children from age three through high school. In addition, the school system supervises five Remedial Reading Centers.

The Lincoln School Foundation is a Red Feather agency, supported only in part by the parents of the seventy-five mentally handicapped children enrolled. The aim of the school is to make these unfortunate children as self-reliant and self-supporting as their abilities permit.

The Coordination of Medical Services

Extensive and diversified medical facilities, such as those found in Grand Rapids, require a marked degree of co-ordination if the best interests of the public are to be adequately served. The Grand Rapids and Kent County Health Departments (both under supervision of the same public health physician), and the Kent County Medical Society provide this co-ordination.

The combined health departments employ 120 skilled professional people, including physicians, nurses, dentists, veterinarians, engineers, sanitarians, educators, and technicians. The traditional public health activities form the basic program. This includes registration and analysis of vital statistics, prevention and control of communicable disease, maternal and child health programs, school health, environmental sanitation, health education, industrial health, and veterinary public health work. More unique are some of the other activities, such as co-ordination of public health nursing with the visiting nurse program, co-operation with the three local Poison Control Centers, a geriatric health program, and the rendering of assistance to public clinics. The health departments were early proponents of fluoridation of drinking water, a project in which Grand Rapids led the nation. Because of the extensive program and outstanding personnel, these departments have been selected by the University of Michigan to co-operate in training graduate students in public health.

The physicians, themselves, through their Kent County Medical Society, provide a large part of the co-ordination service. This organization includes 377 doctors, or 98 per cent of the physicians in active practice. A feature of each monthly

meeting is its scientific program, for which speakers are invited from medical colleges and teaching hospitals throughout the United States and Canada.

An idea of the far-flung activities of the Kent County Medical Society can be gained through scanning a partial list of active committees. Physicians with special interests in each activity or problem are appointed to deal with cancer, industrial hygiene, maternal health, crippled and afflicted children, rheumatic fever, tuberculosis, poliomyelitis, geriatrics, diabetes detection, and mental health. Other committees are concerned with public relations, legislation, natural disaster, highway safety, care of the indigent, and the lending of society funds to medical students. Still other committees provide liaison with the public libraries, public museum, insurance companies, the Michigan Medical Service, labor organizations, the Armen Kurkjian Rehabilitation Center, the legal profession, the School-Health Workshop, and the Medical Economics Course for Internes and Residents conducted at the general hospitals. Medical society representatives are members of the Board of Directors of the Community Chest, the Grand Rapids Alcohol Committee, and the Council for Retarded Children.

A Mediation Committee attempts to settle any dispute which might arise between a layman and a physician. A committee has been appointed to consider the feasibility of establishing a new medical school in Grand Rapids. The organization publishes a monthly Bulletin, which was characterized by a recent president of the American Medical Association as one of the best in the country. For several years, the medical society, the Kiwanis Club, and the Grand Rapids Press have jointly sponsored a series of free public forums on medical questions. For greater efficiency, the society employs a layman as executive secretary.

Working intimately with the medical society for the past twenty-five years, is the Physicians and Surgeons Telephone Exchange. This privately managed facility serves 260 doctors, and forwards 315,000 messages each year to these physicians. In addition, an unrecorded number of routine informational questions are answered for patients regarding their doctor's office hours, change of address, and similar data. Many doctors have extensions of their office phones connected with the Exchange switchboards for use when they are absent from their offices. Each physician is expected to keep the Exchange informed of his whereabouts at all times, and to designate specific colleagues to take his calls when he is unavailable. In addition, each physician under fifty years of age takes his turn in rotation in being available for emergency calls from patients who have no regular physician. If the doctor on call feels unable to advise a patient properly, it is his responsibility to secure the assistance of a colleague who is able to do so.

The Kent County Medical Society publishes a telephone number for use of the general public when a layman wishes to contact the Society rather than a specific doctor. This phone is also answered by the Exchange operators, and the call is referred to the proper officer of the society. In the event of a major fire or other disaster, the Exchange operators alert the general hospitals and ambulance services. Thus the Kent County Medical Society, assisted by the Physicians and Surgeons Telephone Exchange, stands ready to serve the public twenty-four hours each day.

Conclusion

Grand Rapids has for many years been proud of the slogan, "Grand Rapids—a good place to live!" The statement is true for many reasons, not the least of which is the fact that this city has become a modern medical center. Established facilities, many of them pioneer efforts, provide a variety, excellence, and availability of medical service second to none. Some clinics and hospitals have received international recognition. The coordination of these facilities through the combined city and county health departments, the Kent County Medical Society, and the very efficient Physicians and Surgeons Telephone Exchange, makes services easily available to local citizens and helps provide for the nation at large.

The Medical Organizations in Grand Rapids and Kent County

A Historical Sketch

By A. J. Baker, M.D., F.A.C.P.
Grand Rapids, Michigan

THE EARLIEST medical organization of record in Western Michigan probably was the Grand River Valley Medical Association founded in 1851. Little is known of its activities except that it included physicians from five counties, namely, Ionia, Montcolm, Ottawa, Muskegon and Kent. The first three presidents of this group were Dr. Charles Shepard of Grand Rapids, Dr. Alanson Cornell of Ionia and Dr. Alonzo Pratt of Grand Rapids. The secretary was Dr. J. H. Hollister.

The first local medical organization was formed on May 4, 1856, and was called the Grand Rapids Medical and Surgical Society. Meetings were held regularly until 1861 when the war between the states broke out. Many of the members of the society entered the army and meetings were postponed until 1865. The name of the organization was changed to the Grand Rapids Medical Society and it flourished for another score of years.

Grand Rapids Academy of Medicine

Seventy-three years ago, the call for a meeting of physicians of Grand Rapids, for the purpose of organizing a medical society, resulted in assembling on October 21, 1884, in the office of Dr. R. J. Kirkland, the following nine men: Doctors Eugene Boise, J. B. Griswold, Perry Schurtz, R. J. Kirkland, Edward Watson, W. F. Hake, W. W. Catlin, Benj. Pyle, and W. H. White.

On that evening an informal discussion was held, a constitution and by-laws were drawn up and the meeting was adjourned for one week. On October 26, the same men met for organization. The constitution was adopted and signed by those present and officers were elected for one year. Those were: President, Dr. Eugene Boise; Vice-president, Dr. J. B. Griswold; Secretary, Dr. R. J. Kirkland; and Treasurer, Dr. Edward Watson.

Rules of order were adopted and committees appointed for getting the society's work under way. The organization decided to call itself the Grand Rapids Academy of Medicine.

Interest in the progress of medicine was active. During the first year of the Academy's existence, Dr. Hazelwood visited some of the medical centers of Europe and returned with some interesting tales about foreign clinics. He seemed particularly interested in European methods of asepsis and antisepsis, seeing for the first time an operator scrub his hands and instruments in soap and water, rinse in carbolic solution and don a clean white gown before touching the patient (who also had been scrubbed and washed with a carbolic solution). Bloodless surgery and the study of pathological material from the postmortem room also served as subjects for discussion.

London surgery, it seems, was not carried out in the exact way the Germans did it. The carbolic spray was still being used by English surgeons at that time. Mention was also made of the custom, then beginning in London, of cultivating practice by opening free dispensaries for treating (it was thought) charity patients, but in reality the purpose was for advertising and subsequent financial returns.

The year 1890 was made memorable by the accession to membership of Dr. Henry Hulst and Dr. Reuben Peterson. Dr. Peterson with the dignity and learning of Harvard fresh upon him, at the earliest opportunity read an able paper on "Puerperal Eclampsia," which must have made a profound impression since no one offered to discuss it.

Municipal questions, especially school and water supply, were favorite subjects for debate. Dr. Griswold was strong for much study on public school problems. Others preferred to discuss river water, and a committee was appointed to visit the council and urge the necessity for pure water. This occurred year after year for quite a time until the matter was dropped in disgust to be revived a few years later in the so-called water scandal. However,

the agitation for pure water begun by the Academy did much to pave the way for the final adoption of the filtration system we now have.

In 1893, came Dr. Henry Hulst with something entirely new and rather startling for treatment of disease, that is, hypnotism. His first paper on the subject met with a rather hot reception. Many were in considerable doubt as to the place hypnotism should occupy in therapeutics. Others condemned it wholly. Dr. Hulst, in his original paper, reported being able to hypnotize sixty-four out of sixty-eight subjects upon whom it was tried. He ended by saying, "You ask—can anyone practice hypnotism, yes anyone can—so could anyone cut off my leg but I should hardly want anyone to try it. Dangerous? Yes, of course hypnotism is dangerous and one had best understand something of its power before meddling with it. We should take hypnotism upon a broad scientific base and not regard it as a clever trick." When Dr. Hulst died in 1949, the following tribute appeared in the *American Journal of Roentgenology and Radium Therapy:*

"The roentgen diagnosis of tuberculosis owes probably more of its foundation to Henry Hulst than to any other American radiologist in that he was first to roentgenograph the chest in one second or less. Dr. Hulst attained these short exposures by substituting for interrupter-coil, a static machine made to his specifications, with fifty shellac and mica plates 28 inches in diameter, and fifty stationary glass plates 32 inches in diameter."

His achievement was honored by electing him President of the American Roentgen Ray Society in 1905 and 1906.

Grand Rapids Medical College

The Grand Rapids Medical College was incorporated in 1895 during the rash of medical schools of that period. This was one of the twelve medical schools that have been established in the state of Michigan.

The first class matriculated in 1896 for a three-year course of eight months each. Later the curriculum was increased to four years.

The faculty comprised forty doctors of medicine, among whom were men of great ability.

William H. De Camp, M.D., was Emeritus Professor of Surgery. After graduation from Geneva Medical College in 1847, he had practiced eight years in New York state before he came to the salubrious climate of Grand Rapids to recuperate from a serious illness. Governor Austin Blair, the "war governor" appointed De Camp to serve with the First Michigan Engineers, and he was wounded at the battle of Perrysville. After the battle of Harrodsburg he was entrusted with the care of 1,500 of General Bragg's Confederate troops. When he died at seventy-three years of age on July 4, 1898, the Grand Rapids Medical College was in full swing.

The president was Joseph Bascow Griswold, whose medical career also embraced the Civil War period. When the war broke out Griswold was a student of eighteen years of age enrolled in the Michigan Agricultural College. He enlisted in the Second Michigan Cavalry and soon became its leader. But illness caused his discharge in 1862, so he turned to the University of Michigan to secure a medical education. Throughout 1863 and 1864 he attended "lectures" which was the only type of medical education available in Michigan University at that time. After this, he reenlisted as assistant surgeon of the Fourth Michigan Cavalry and was discharged in 1866 with the rank of Regimental Surgeon. After postgraduate study at Rush Medical College, he returned to Grand Rapids to practice. Dr. Griswold served as president of the Grand Rapids Academy of Medicine and of the Michigan State Medical Society. He was an eloquent speaker and was greatly admired for his kindly personality and myriad-minded genius, which none were too poor and humble to share.

Another brilliant teacher was William Fuller, M.D., whose original research in anatomy of the brain and nervous system brought him enduring fame.

Dr. Schuyler C. Graves, brilliant surgeon, had the formidable title of Professor of Principles of Practice of Surgery and Clinical Surgery and Clinical Professor of Abdominal Surgery.

Two of the faculty members are still living, namely, Dr. Mortimer E. Roberts and Dr. George H. Baert.

Some 108 students were graduated from the college before its close in 1905. The mounting cost of medical education made it increasingly difficult to finance the smaller schools and the college voluntarily closed its doors in 1905.

Kent County Medical Society

On November 22, 1889, an organizational meeting was called in the Morton House which was

the beginning of the present Kent County Medical Society. Its membership was intended to comprise all regular practitioners who were graduates of colleges recognized by the American Medical Association. The first president was S. R. Wooster of Grand Rapids. Vice-presidents were O. C. McDannell of Lowell, Perry Schurtz of Grand Rapids, D. W. Wallace of Sparta, and other officers including a secretary, treasurer, editor, and four censors. The number of censors might be evidence that all was not always harmonious in the ranks.

Also there was rivalry between the Society and the older Academy of Medicine. Gradually the Society gained prestige and its amalgamation with the Michigan State Medical Society gave it greater impetus.

In the office of secretary of the Society, Dr. Joseph B. Whinery performed yeomen service during the early years, as did Dr. A. V. Wenger, who became his successor.

Reminiscing over the years, many distinguished names come to mind. In surgery, were Dr. Richard R. Smith, Dr. Schuyler Graves, Dr. Robert J. Hutchinson and Dr. Alexander M. Campbell. Dr. Ferris N. Smith achieved world renown in plastic surgery. Dr. William Northrup was beloved by all. Dr. Fred Warnshuis served for an unprecedented term as Speaker of the A.M.A. House of Delegates.

Perhaps none of these ranked with Dr. Charles Shepard, who was among the first to practice in Grand Rapids and lived to become the dean of the fraternity, revered alike among his confreres and in the civic community.

The measure of success attained by some of the men of fifty years ago—and some of them were eminently successful—depended a great deal perhaps, on what we may call imponderables, certain indefinite things which cannot be weighed or measured. They perhaps understood the emotions and impulses of the patient better than we do; without question they depended more on the art than the science of medicine. The art of medicine is much more individualistic than the science of medicine, and involves other fields of human knowledge and experience.

The practitioner of a generation ago had a much closer association with his families, than we do in these days of specialism. He frequently had a knowledge of their social, domestic and financial condition which we do not enjoy. He was their family counselor and friend and was looked up to and respected, as such. As a rule, he was a gentleman in all that the word implies. And the hallmark of a gentleman is not his manners or his clothes but his consideration for others. A gentleman has the consciousness that other individuals have the same right to their feelings and expressions that he has, himself, and that their viewpoint or actions must not be destructively criticized, or their mistakes held up to ridicule.

If we get nothing more from a study of the work of our predecessors than a true appreciation of the value of the art of medicine as contrasted to the science of medicine, we shall have learned a great deal.

404 Ashton Building
Grand Rapids, Michigan

MEDICARE PROGRAM MARKS FIRST ANNIVERSARY

The military's medicare program was one year old, December 7, 1957. To date according to the Defense Department, the government has paid more than 300,000 physicians' bills amounting to $22 million, and over 200,000 civilian hospital bills totaling $21 million. While the combined total is considerably under the estimated $76 million a year for the program, the Office of Dependent's Medical Care points out that there is a backlog of claims. The President's budget message to Congress asked for around $76 million.

Administrative costs, according to OCDM, have been running 3 per cent of total expenditures, which a spokesman said was just about "on the button." Almost 40 per cent of medicare patients have been maternity cases. The Air Force leads the services with 41 per cent of eligible dependents participating; then the Navy, with 32 per cent; Army, 25 per cent, and Public Health Service, 2 per cent.

The medicare program was enacted into law on June 7, 1956, and became effective six months later. Its objective is to create and maintain high morale in the uniformed services by providing an improved and uniform program of medical care for members and their dependents.—AMA Washington Office.

Ten Years' Surgical Experience with Cardiovascular Problems in Western Michigan

By Richard A. Rasmussen, M.D.,
Richard H. Meade, M.D., and
Clair E. Basinger, M.D.

Grand Rapids, Michigan

IN A GRAND RAPIDS hospital in March of 1947, a young girl with a patent ductus arteriosus was operated upon and the ductus successfully ligated. This, so far as we know, was the first cardiovascular operation to be performed in western Michigan. Although Munro[14] of Boston suggested this operation in 1907, it was not attempted until 1937 by Strieder,[20] and it was not then successful. In 1939, Gross[12] of Boston, was more fortunate and successfully ligated a ductus. Since then, this has become the most satisfactory of all operations on the heart and great vessels.

In 1945, Crafoord[7] of Stockholm, reported the successful excision of a coarctation of the aorta, and anastomosis of the aorta. Gross later showed that in cases where anastomosis could not be done, a homograft could be used. Blalock,[4] in 1945, made his report on the surgical treatment of Tetralogy of Fallot and reported a series of children on whom he had successfully operated. He anastomosed the subclavian artery to the pulmonary. So striking was the result of this operation, which gave help to children otherwise doomed to early death, that its fame spread through the world. In the next year Potts[15] described his operation for this condition in which a part of the aorta was anastomosed to a pulmonary artery. His associate, Smith, had designed an instrument which made it possible to clamp off the small part of the aorta to be used in the anastomosis, so that there was no interruption of the flow of blood through the aorta. This simplified the operation so much that the Potts operation became more popular than the Blalock type. In 1948, Sellors,[17] and a little later Brock,[5] began operating on patients with congenital pulmonary stenosis by passing a dilator through the ventricle, and later a special knife was used. This became a standard procedure which gave good results.

The first step in treating acquired heart lesions came with the successful application of Souttar's[19] operation for mitral stenosis by Bailey[2] in 1948. He operated on a young woman with this disease and succeeded in splitting the commissures which held her valve in a stenotic position. In the same week Harken[13] of Boston did a similar operation, and three months later Brock[6] of London also did this procedure. Since then, this operation has been done with success the world over. With the success of this operation and others on the heart, the next attack was made on atrial septal defects, and various closed operations were perfected with good results. It had been demonstrated in 1942 by Shaw[18] (and others) in Chicago, that complete inflow occlusion was tolerated in dogs for three minutes at normal body temperatures. Then Bigelow,[3] in Toronto, in 1950 showed that by lowering the body temperature to a marked degree it was possible to double this occlusion time and more safely allow certain operations on the open heart of animals. Swan[21] of Denver was the first to use this technique clinically, and in a short time had an impressive series of successful cases. Brock in England also did much with this technique. It seemed that this might be an answer to open heart surgery.

In 1937, Gibbon had reported his results with an extracorporeal pump and oxygenator with which he could keep cats alive for ten minutes with the cardiac flow stopped. He continued to work on this and in 1953[11] was able to report that the machine was so perfected that he could successfully operate on a patient using the machine. Since then, other machines have been perfected. The first was that of Dodrill[9] of Detroit in 1952. Lillihei and DeWall of Minneapolis, Kay and Cross of Cleveland, and others also devised successful heart-lung machines. At present, many large centers have these machines.

Large series of cases have been reported from Minneapolis and the Mayo Clinic. With these machines it is possible to close atrial and ventricular defects under direct vision and to operate on the valves of the heart.

Finally, another field has proven most exciting. This is the problem of the aortic aneurysm. DuBost[10] in 1952, reported that he had resected an abdominal aneurysm and replaced it with a homograft. In 1953 Bahnson[1] reported his success in resecting certain thoracic aortic aneurysms. The same year, DeBakey reported success in removal of abdominal aortic aneurysms and their replacement with grafts. Cooley[8] and DeBakey have now resected a large number, the excisions varying from just above the aortic valve to the popliteal arteries. Many other surgeons throughout the world have had the same experience. At first, it was felt that homografts were best but recently the trend has been to plastic grafts. In Grand Rapids, the first successful resection of an abdominal aneurysm was in 1955.

It is evident from these facts that efforts to correct both congenital and acquired cardiac and vascular lesions have been made for many years. Not much was accomplished for thirty years after Munro made his suggestion of surgical treatment in 1907 until Gross did his operation for patent ductus in 1939. World War II interrupted further progress until 1945 to 1948, when coarctation of the aorta, Tetralogy of Fallot, pulmonary stenosis, vascular rings, and constrictive pericarditis were corrected.

In 1947, when our work in western Michigan was begun, surgical treatment was available and proven for constrictive pericarditis, patent ductus arteriosus, coarctation of the aorta, vascular rings and Tetralogy of Fallot. The operation done to correct the patent ductus in 1947 was only a beginning. Its success in a number of patients encouraged us to apply the methods then available to other types of defects. Constrictive pericarditis was treated by excision of the pericardium here in that same year. In 1948, three years after Crafoord and Blalock had performed operations to correct coarctation and Tetralogy of Fallot, these operations were being applied in Western Michigan. A patient with a double aortic arch and constriction of both the esophagus and trachea was treated by division of one of these great vessels. Mitral stenosis was first treated here by valvulotomy in 1952 and since then, a fairly large number of these lesions has been corrected with success comparable to the larger series reported. Closed valvulotomy for pulmonary stenosis, according to the method described by Potts,[16] was also done in 1952. Resection of the aorta and major vessels for aneurysm and arteriosclerotic occlusive disease was accomplished successfully in 1955. Interatrial septal defect was corrected by the closed method in 1956.

This field of surgery has expanded rapidly as physicians, in general, have come to recognize the cardiovascular defects and to realize the possibility of relief or correction by surgery.

These advances in corrective treatment for congenital and acquired lesions of the heart and blood vessels have come about as the result of endless experimentation and effort by many individuals in many fields. The application of new techniques in anesthesia to control respiration so as to permit long and difficult surgical procedures, the development of adequate blood bank facilities for blood replacement, and the addition of many new essential laboratory aids have all played an important part in the successful achievement of the procedures already mentioned.

The diagnosis of cardiovascular conditions for which surgery can be applied is most important. In 1947, the prime essentials available were: a careful clinical history, a physical examination, a stethoscope and imagination. The few special procedures at hand, also, were routine fluoroscopy and x-ray, the electrocardiogram and very limited angiography. These we had and they were used as fully as possible to sort out the lesions then considered suitable for surgery. With these means, and the careful application of knowledge and experience, a considerable accuracy in diagnosis was achieved. There were, however, many other lesions which required other diagnostic methods in order to make available to the patient the accepted surgical procedures.

The recognition of these deficiencies led first toward an effort to improve our angiocardiographic procedures. A manually operated device to permit about four to six x-rays to be taken after the injection of radio opaque dye into a peripheral vein was developed. This was crude and the films were made several seconds apart. It then was possible to record the passage of the dye through the heart and to diagnose the presence of certain abnormal defects, such as interauricular septal defect, interventricular septal

defect and, rarely, a patent ductus arteriosus and coarctation; these, previously, were not demonstrable by x-ray means.

In 1953, the need for improvement in diagnostic techniques in this area of the state was apparent. Without this improvement in diagnosis, it was obvious that the progress which had already been made would be greatly slowed. At this stage, the John A. Hartford Foundation, Inc., expressed interest in supporting a project for the further development of diagnostic and treatment facilities for cardiovascular disease in western Michigan, under the direction of Blodgett Memorial Hospital. The details and functions of this project are presented in a separate presentation in this JOURNAL, as a report from the cardiac study group.

These facilities have made possible complete diagnostic study of the heart and the great vessels. This is accomplished by a group effort of internists, pediatricians, radiologists, surgeons, physiologists, chemists and others.

As a result of the continuing support of the John T. Hartford Foundation, a research laboratory, has also been established. In this laboratory, studies including the use of a heart-lung machine are being carried on. This machine, taking over as it does the functions of the heart and lungs by mechanical means, makes it possible for the surgeon to operate on a dry, quiet heart. We expect to use this machine clinically in the very near future. Its use will permit the correction of septal defects and valve deformities, and, probably, it can be utilized in selected artery replacement.

Advances in the surgical techniques have also been made in this ten-year period in Grand Rapids. Correction of Tetralogy of Fallot ("blue baby") has been done, by the two methods available. In the future, this lesion will be treated more often by open heart operation. At first, the blue baby was operated upon under normothermic conditions, but in 1952, the value of hypothermia was recognized. Our early attempts at hypothermia consisted of placing ice bags around the body in order to obtain cooling and thus reduce the metabolic oxygen and anesthetic requirements while the aortic-pulmonary or subclavian pulmonary anastomosis was being made. This cooling method was soon changed to a rubber mattress placed under the patient and then to a refrigeration machine and a controlled temperature mattress. These methods of cooling have been used not only on cyanotic individuals during surgery but also to enable us to perform open pulmonary and aortic valvulotomy for congenital stenosis of these valves. By these appropriate cooling means, it has been possible to occlude, safely, the complete blood flow to the heart for six minutes.

Coarctation of the aorta was first corrected by us in western Michigan in 1948. During the operation for this condition, an effort was made to reduce the possible dangers of increased cerebral blood pressures during cross-clamping of the aorta. Hypotensive drugs were tried and given up as hazardous in themselves. We also tried bleeding the patient at the time of aortic clamping to reduce blood volume and pressure and then re-infusing this blood as the aorta was opened after the anastomosis. This method did work, but better means of managing this problem have replaced it.

Replacement of aortic aneurysm and aortic occlusive disease was undertaken here in western Michigan in 1955, three years after Dubost's success in France. Many of these lesions and others of the vascular system have now been corrected by grafting. The gravity of these problems in middle-aged and older persons is only recently being recognized. Procedures to revascularize the myocardium are being developed and a direct attack on the coronary arteries will probably soon be possible.

In this field of blood vessel replacement, one of the foremost problems has been the type of graft to use. The early experiences of others with homografts was quite variable and it was apparent that long-term survival of the graft had not yet been determined. The difficulty in obtaining and preparing satisfactory homografts was considerable but we did participate in this effort, and a number of grafts were placed with some success. The work of others and our own experiences and convictions led us to plastic grafts which have been used for one and one-half years and this type of prosthesis is now being used routinely. We have used them for both acquired and congenital lesions.

Congenital cardiovascular lesions which have been treated surgically during the past ten years in western Michigan are shown in the accompanying table.

Diagnoses of these lesions have been made by the usual examinations, as well as by an increasing

number of special diagnostic procedures. The special diagnostic cardiac study group, above mentioned, has now been in complete operation for over two years. This unit has provided for greater accuracy in anatomic, as well as physiologic, data in both congenital and acquired cardiovascular disease, and in pulmonary diseases as well.

CONGENITAL CARDIOVASCULAR DISEASES WHICH HAVE BEEN TREATED SURGICALLY

Patent ductus arteriosus	43
Tetralogy of Fallot	14
Coarctation of the aorta	8
Pulmonary stenosis (closed method)	6
Interauricular septal defect	1
Vascular rings	6
Aortic stenosis (open)	2
Pulmonary stenosis (open)	2
Total operations	82

The above list of congenital lesions includes most of those which today are treated surgically. Early in our experience, closed methods were used regularly for congenital valvular lesions. During the past year, open aortic and pulmonary valvulotomies have been safely accomplished. It appears to us that direct visualization of the valves is the method of choice in the treatment of this condition. The results in the congenital group have been some of the most dramatic and gratifying in the restoration of normal or improved cardiac function. This entire series of surgical procedures has been accomplished with a mortality of 6 per cent.

Our experience with the surgical treatment of acquired cardiovascular disease in the past ten years includes a representative group of conditions which today can be treated by surgery, as shown in the accompanying table.

Over half of the surgical procedures for acquired lesions have been for mitral stenosis. In a recent review of our cases, it was found that 82.7 per cent had subjective and objective improvement, 5.7 per cent had no relief and 11.6 per cent died (including those who died in the hospital and those who died months and years later). Our experience is that many of these individuals are dramatically relieved of their symptoms and of cardiac failure, as has been reported by other workers.

Arteriosclerotic occlusive disease has long been recognized as a real problem. It has been less than five years since any definitive treatment could be offered for those so afflicted. With increased experience and with the development of more accurate diagnostic techniques, it has become possible to properly select surgical candidates. The treatment consists either of removal of the occluded segment followed by graft replacement, or a by-pass procedure in which the occluded segment is left undisturbed and a graft connected to the major vessel above and below the occlusion. The by-pass procedures have proven to be more successful in restoring peripheral circulation and relieving symptoms. Mortality in these procedures has been less than 8 per cent.

Our experience (and that of others) with the resection of abdominal aortic aneurysms, is that a successful result can be expected in 85 per cent of patients when surgery is done electively before the aneurysm ruptures. If treatment is delayed in a known case or ruptures occur without previous symptoms or diagnosis, less than 50 per cent can be salvaged.

CONGENITAL CARDIOVASCULAR DISEASES WHICH CAN BE TREATED SURGICALLY

Mitral stenosis	56
Aortic stenosis	2
Aortic insufficoency (Hufnagel valve)	1
Dissecting thoracic aneurysm	1
Pericarditis	3
Wounds of heart	2
Coronary artery disease	4
Arteriosclerotic occlusive vascular disease (grafting procedures: aorto-iliac, femoral or popliteal)	24
Abdominal aortic aneurysm	5
Occlusion due to embolus	2
Repair major artery (trauma)	1
Total operations	101

During these ten years of treating congenital and acquired cardiovascular disease, each type of operation generally has been performed within three years or less from the time the original operation was described. A number of unusual congenital and acquired problems have been encountered and will be the subject of a future presentation.

What about the future? With the rapid advances in the field of cardiovascular surgery, many of the procedures have been outmoded and have been replaced by more direct procedures. The closed operations have given way to the open or direct visual correction of the defects. We expect that open cardiotomy for the correction of

intracardiac lesions, making use of the heart-lung machine, will be performed within the next few months. This will have been made possible because of our research laboratory, where experience in use of the heart-lung machine is obtained. Additional diagnostic procedures will be developed and become available. It is also anticipated and hoped that progress will be made on methods of revascularization of the heart to provide more adequate blood flow. The methods described by Beck seem to offer some hope. Probably, there will be a more direct attack on the coronary vessels, themselves, such as selected artery replacement or endarterectomy, as was recently described by Bailey.

Summary

(1) A historical review of the advances of cardiovascular surgery has been presented.

(2) Reference to the development of a special diagnostic cardiac study unit in western Michigan has been made, and a research unit has been described.

(3) A summary of ten years' surgical experience in western Michigan for the treatment of congenital and acquired cardiac and vascular disease has been presented.

(4) Some aspects of the future of cardiovascular surgery are discussed.

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1810 Wealthy Street, S.E.
Grand Rapids 6, Michigan

WELFARE STATE REALITIES

Forty per cent of the income-earning people of England's Welfare State receive less than $100 a month. This less-than-$100 figure is gross—in other words before income taxes and Welfare State deductions are figured. The net spendable income is less.

There are other enlightening statistics on income. A total of 19,430,000 (about 95 per cent) of the United Kingdom's 20,300,000 income earners have take-home pay of less than $2800 a year. And 87 per cent have net incomes from $550 to $2000 a year—with most of these nearer the $1000 figure. Only 200 persons in the United Kingdom's 51,221,000 population have net incomes of $16,000 or more. This was one of the shocking realities of the Welfare State. There are more $16,000 net incomes in Kansas City, Missouri (or any other sizable American city) than in the whole of the United Kingdom with its 51-million population!—*National Education Program Letter.*

A Report from the Cardiac Study Group Blodgett Memorial Hospital

By Noyes L. Avery, Jr., M.D.
Grand Rapids, Michigan

BECAUSE of the rapidly increasing interest in congenital heart disease and surgically treatable acquired heart disease, and because of the availability of experienced cardiac surgeons, it became apparent that a diagnostic program should be initiated at the Blodgett Memorial Hospital. The John A. Hartford Fund offered to support such a project in October, 1954. The program itself was activated July 1, 1955. The group was organized so that all interested internists, pediatricians, roentgenologists and surgeons would actually participate as a diagnostic team offering a consultation service to referring physicians on appropriate cases, without remuneration, and at the same time, being given the opportunity to study at first hand this interesting group of patients.

Largely, with the financial support of the Hartford Fund, a training and educational program was commenced and much specialized equipment purchased to allow activation of the program as rapidly as possible. Thus, right heart catheterization, angiography, and dye dilution techniques became available to the diagnostic team. Also, of course, these services became available for monitoring physiological conditions during cardiac surgery.

Besides the usual history and physical examination, the basic evaluation of all referred patients includes special electrocardiographic studies (and recently, vector cardiograms), phonocardiograms, cardiac fluoroscopy and x-ray study. All cases are evaluated clinically by several members of the diagnostic team and decisions made regarding further study or disposition. After the indicated physiologic and angiocardiographic studies are completed, the cases are presented weekly for conference opinion and rcommendations.

To indicate how extensively these services have been utilized the accompanying statistics are presented.

To date catheterizations have included only right heart studies and dye dilution techniques, but the necessity for adding more complete studies, including left heart catheterization, has arrived and will be added next year.

UTILIZATION OF SERVICES
July 1, 1955 to December 4, 1957

(1)	Total cases referred for study	234
(2)	Total catheterization studies	141
	(repeat catheterizations 9)	
	(cases congenital 99)	
(3)	Total angiocardiograms and/or aortograms	33
(4)	Total referred cases operated upon	22
(5)	Cases referred elsewhere for further study or surgery	5

A far larger and more varied group of congenital heart conditions has been seen than was originally anticipated. Thus, this has been a most profitable educational as well as therapeutic program. Although it has not, of course, always been possible to diagnose all cases as thoroughly and as accurately as might be desirable, we have been gratified that the diagnostic techniques utilized have been satisfactorily accurate.

A gross classification of the congenital cases studied by catheterization and/or angiocardiography follows:

(1)	Tetrology of Fallot (or variant)	10
(2)	Pseudo-truncus arteriosus	2
(3)	Transposition of great vessels	3
(4)	Tricuspid atresia	2
(5)	Pulmonary stenosis "pure"	9
(6)	Pulmonary stenosis with increased pulmonary blood flow	12
(7)	Patent ductus arteriosus	10
(8)	Intraventricular septal defect	22
(9)	Intraatrial septal defect	7
(10)	Combined septal defects (including A-V communis)	4
(11)	Primary pulmonary hypertension	1
(12)	Ruptured mitral chorda tendinae	1
(13)	Others	16
	Total	99

As the diagnostic facilities have grown, and as surgical techniques have progressed rapidly, it has again become apparent that it is both advisable and feasible to carry out open heart surgery on a more extensive basis with the aid of extracorporeal circulation. In addition, this plan co-

(Continued on Page 220)

Parkinsonism and Its Surgical Treatment

By Carl F. List, M.D., and
John R. Williams, M.D.
Grand Rapids, Michigan

WITH THE AGING of our population, degenerative diseases of the central nervous system have increasingly attracted the attention of physicians. Among such conditions, cases of parkinsonism constitute a large group. The magnitude of the problem is borne out by the fact that, by a conservative estimate, more than 200,000 persons in the U. S. A. are disabled by parkisonism.* Knowledge and adequate treatment of this affliction, therefore, are a challenge to all neurologists and neurosurgeons.

Parkinsonism is a complex syndrome, characterized mainly by disturbances of motility, namely, (1) spontaneous hypokinesis and loss of motor initiative, (2) slowing of spontaneous movements, (3) loss of automatic movements, especially in postural control, (4) rigidity of muscles and (5) rhythmic alternating "resting" tremor.

In general, the appearance of the parkinsonian patient is so typical that the experienced clinician will recognize the condition at one glance, but the components of the syndrome may vary. For example, some of the patients show rigidity and hypokinesis without tremor; others exhibit gross tremor without appreciable rigidity. Signs and symptoms may be unilateral or bilateral, or limited to one extremity. The motor phenomena of parkinsonism are not uncommonly associated with vegetative disturbances, mental changes and secondary contractures of joints, ligaments and muscles. Parkinsonism is no true disease entity but a clinical syndrome which may be caused by different etiologic factors such as the virus of epidemic encephalitis, arteriosclerosis, certain intoxications (CO, manganese, reserpin), and mechanical or electric injury of the brain; in a large group of cases, called idiopathic, the underlying cause remains obscure.

Neurophysiologic understanding of parkinsonism is possible only if its pathologic-anatomic foundations are known. For many years the view prevailed that the characteristic anatomic changes were to be found in the basilar ganglia, especially in the pallidum. O. Vogt[1] and Foerster[2] actually considered parkinsonism a pallidal syndrome. However, it has been known for years that the pathognomonic changes in postencephalitic parkinsonism occur mainly in the substantia nigra of the midbrain. Recently, Hassler[3] has shown that degeneration of the substantia nigra is typical also for other forms of parkinsonism (idiopathic, senile) and that lesions in the pallidum probably are unrelated, incidental findings.

While the pathologic anatomy of parkinsonism appears to be fairly well established, a satisfactory understanding of the associated neurophysiologic phenomena has not yet been achieved. Most explanatory theories depend upon human clinicoanatomic observations rather than on experimental evidence, and conclusions drawn either from the localization of disease processes or from the effect of certain neurosurgical interventions. Since such difficult neurophysiologic problems may be unfamiliar to the reader not especially versed in neurology, a simple diagram of the neural control of movement is presented here to illustrate the following statements (Fig. 1).

When some thirty-five years ago, the dual concept of the "pyramidal" and "extrapyramidal" systems was created, parkinsonism was considered an example of an "extrapyramidal" disorder. O. Vogt[1] and Foerster[2] assumed that destruction of the pallidum produces rigidity, hypokinesis and tremor by releasing the motor activity of the brainstem, but this dogmatic view has been rendered improbable by the observation that surgical destruction of the medial part of the globus pallidus does not produce the parkinsonian syndrome, but alleviates or even abolishes it. Furthermore, the entire dichotomy of the "pyramidal-extrapyramidal" systems is now regarded an obsolete and inadequate concept. In our present state of iconoclastic confusion, we must reevaluate the observed facts in an unbiased manner.

Bucy[4] maintained that the presence of parkinsonian tremor depended on the integrity of the so-called "pyramidal tract" (that is, the cortico-

From Blodgett Memorial Hospital, Grand Rapids, Michigan.

*Personal communication from Dr. L. T. Kurland, Bethesda, Maryland.

spinal pathway originating from the motor cortex). Section of this pathway at the level of the rolandic cortex, the midportion of the cerebral peduncle or of the lateral column of the spinal cord abolishes parkinsonian tremor, but, at the same time, some degree of volitional paresis will supervene. From such observations, however, it cannot be deduced that impairment of volitional motor activity *per se* accounts for the abolition of tremor. Actually, parkinsonian tremor (and rigidity) can be alleviated by the following surgical lesions which either spare the corticospinal path or damage it only slightly: Extirpation of the premotor area 6, (Fig. 1), section of the anterior limb of the internal capsule, section of the ansa lenticularis, destruction of the medial portion of the globus pallidus and of the ventrolateral nucleus of the thalamus.

Since all these structures lie in the vicinity of the "pyramidal tract" it might be accidentally damaged by crude technique or unavoidable vascular reaction of the neighborhood; yet in a few anatomically verified instances the "pyramidal tract" was intact and, moreover, many cases showed no clinical evidence of even a transient hemiparesis. One must, therefore, conclude that the favorable effect of these operations on tremor (and rigidity) cannot be convincingly explained by a lesion of the "pyramidal" tract. Some authors (Meyers,[5] Spiegel and Wycis[6]) have interpreted the good results following destruction of the inner part of the globus pallidus or of the ansa lenticularis, as due to elimination of facilitatory pallidofugal impulses to lower brainstem centers. Anatomic studies have demonstrated connections of the medial portion of the pallidum with the ventrolateral nucleus of the thalamus which, in turn, projects back to area 4 (motor cortex) and area 6 (premotor cortex). Thus, it appears probable that surgical lesions of the globus pallidus or ventrolateral nucleus of the thalamus interrupt not only an efferent pallidofugal system but also an afferent circuit facilitating motor innervation (Fig. 1). Experiments with electric stimulations during stereotaxic operations on the pallidum (Reichert,[7] Hassler[8]) support the view that the pallidum plays a part in the unspecific afferent activating system for the cerebral cortex. To express this situation in clinical terms, the pallidum contributes to modulate psychomotor reactivity.

Modern neurophysiologists have endeavored to replace the outmoded concept of the "pyramidal" and "extrapyramidal" systems. According to the investigations of Granit,[9] motor innervation and, in particular, muscle tone are not only centrally

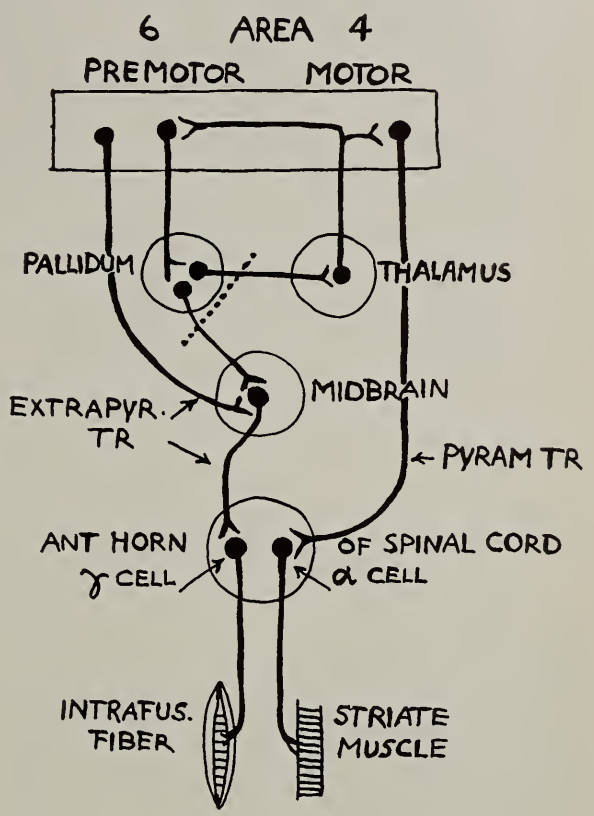


Fig. 1. Diagram to show the main neural pathways for control of movements. Surgical interruption of these paths has been attempted at various levels in order to relieve Parkinsonism. The stippled line indicates the site of pallidectomy and section of the ansa lenticularis.

controlled, but regulated also by a special lower motor neuron mechanism, the so-called *gamma* loop. *Gamma* ganglioncells are special neurons in the anterior horn of the spinal cord; they innervate the intrafusal muscle fibers of the muscle spindles and act as a "built-in feedback mechanism" for maintenance of muscle tone. Centrally, the *gamma* loop appears to be activated by the extrapyramidal" system, whereas the "pyramidal tract" activates the "alphacells" which deliver phasic motor impulses (Fig. 1).

In brief, our present knowledge concerning the neurophysiologic basis of parkinsonism is still inadequate and, as a corollary, we do not yet understand the reasons why certain surgical procedures symptomatically improve parkinsonism. Being aware of this situation, the conscientious neurosurgeon must exercise great caution and ma-

ture judgment in selecting patients for such empirical operations. Unfortunately, false hopes have been raised among laymen by over-optimistic reports in several widely read popular magazines, published before sufficient experiences could be gathered by different investigators. At present, the surgical treatment of parkinsonism should be limited to fairly advanced cases. The most ideal candidates are patients with severe unilateral involvement. Individuals above sixty-five years of age and those with severe cardiovascular and cerebrovascular disease and mental changes should be excluded from surgery.

Even with such reservations, we cannot withhold the potential benefits of surgical procedures which alleviate disabling symptoms without excessive morbidity or risk to life.

Of all proposed procedures so far, destruction of the medial portion of the globus pallidus has proved to be the method of choice. It is relatively free from undesirable side effects such as hemiparesis, but it has been difficult to produce consistently a well-defined, accurately-placed lesion of predictable size. The deep site of the globus pallidus precludes the use of open surgery because such intervention must unavoidably traumatize important neighboring structures. An indirect approach which interrupts the blood supply for the pallidum must be considered equally impractical: The vascularization by the anterior choroidal artery is too variable and therefore, results obtained by ligation of this vessel, are unpredictable. Precise placement of a small lesion within the pallidum can be achieved by stereotaxic technique.

In vivo, reasonably accurate localization of the target is attained with help of brainmaps and certain roentgenographic reference points. Pneumoencephalographic visualization of the foramen of Monroe, the anterior and posterior commissures (or pineal body) is necessary to determine the approximate position of the globus pallidus (Fig. 2). Its relatively large size affords a certain margin of safety even when stereotaxic localization has been not absolutely perfect. The stereotaxic method has proved its value in the hands of Spiegel and Wycis,[6,10] Reichert,[7] Leksell,[11] Tailarach[12] and Narabayashi,[13] but their instruments are too complicated for general use. Cooper[14] deserves credit for having adapted the method to the needs of the average neurosurgeon. Cooper's apparatus is a simple fixating device which permits empirical adjustment of a cannula under x-ray control and has proved to be sufficiently accurate for clinical use.

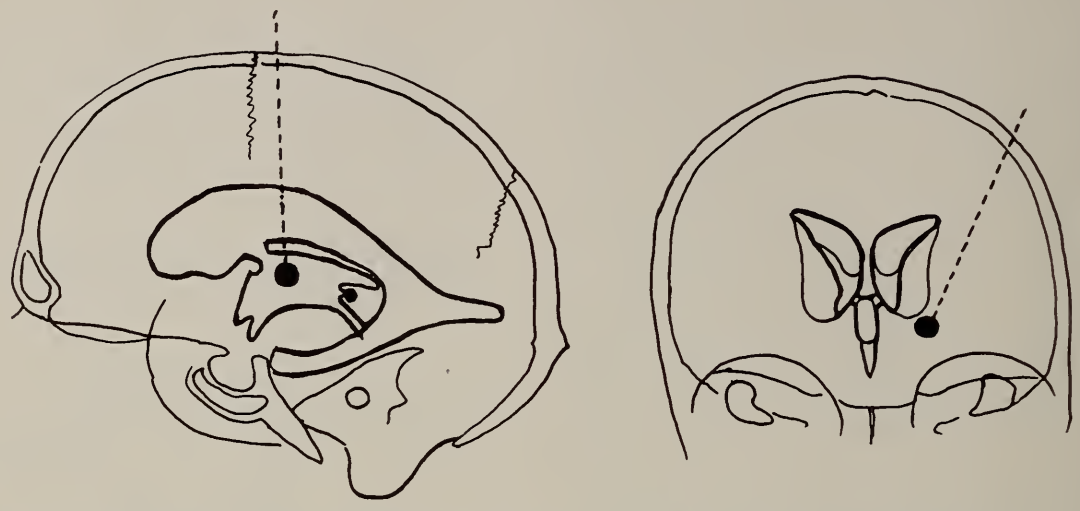


Fig. 2. Schematic pneumoencephalograms to show the site of pallidectomy (black circle). The dotted line represents a cannula directed towards the medial portion of the globus pallidus.

Once the target has been reached, various methods have been employed to produce a lesion of predictable size, namely, destruction of tissue by mechanical trauma, diathermic coagulation, galvanocautery or injection of chemicals, and ultrasound. An excellent method appears to be that of heating the tissue between two electrodes to 50° C. (Leksell[11]) but the equipment is complicated. Much simpler is Cooper's[14] technique of "chemopallidectomy" which consists of injection of absolute alcohol or 8 per cent cellulose in

absolute alcohol (Etopalin). Chemopallidectomy has the disadvantage in that the injected material may spread in an unexpected direction. Usually it tends to flow back along the cannula tract. However, by the following modifications of the technique, reflux can be minimized: (1) The injection is given extremely slowly. (2) A special double-barreled cannula is used with an inflatable balloon at its tip. Injection of the balloon (with radiopaque contrast medium) creates a pocket which, when the balloon is deflated, will retain the subsequently injected Etopalin.

Cooper has presented his experiences with a series of over 300 cases. In that group, the mortality from chemopallidectomy has been approximately 3 per cent, mostly due to brain hemorrhage. Serious but nonfatal complications occurred, such as hemiparesis in an almost equal percentage. Sixty to 70 per cent of Cooper's patients showed improvement of rigidity, speed of movement and tremor. The favorable effect on rigidity is usually more striking than on tremor; in fact, tremor may be only partially or temporarily relieved and eventually relapse. In order to abolish tremor, the pallidal lesion must be placed more posteriorly, and conceivably, spread of the lesion to the internal capsule (involvement of corticospinal tract) may account partially for a good result. More recently, tremor has been more effectively eliminated by an (additinoal) lesion in the ventrolateral nucleus of the thalamus (Hassler, Cooper). Chemopallidectomy improves the motor disorder of the contralateral side, but in some cases, mild ipsilateral changes (either improving or worsening) have been noted.

Bilateral chemopallidectomy must be performed in two separate sessions, preferably several months apart. The results of the bilateral procedure have at times been disappointing and the good results obtained after the first stage have been vitiated by dysarthria, dysphagia and lobotomy-like mental changes following the second stage. These undesirable results appear to be due to the cumulative effects of bilateral lesions extending into the anterior limb of the internal capsule. In some cases of bilateral parkinsonism, it is, therefore, wiser to perform the operation only on one side.

Our personal experience with chemopallidectomy has been limited to a series of thirty-three patients with thirty-nine operations. The group included postencephalitic and idiopathic cases of parkinsonism; the ages of patients varied from thirty-two to sixty-nine, most of them being over fifty. Tremor was the leading sign in six cases, five patients were rigid and hypokinetic without tremor, and the remainder exhibited a mixed symptomatology. Five patients underwent bilateral chemopallidectomy.

In seventeen instances, the operation was performed by temporal approach, in twenty-two by the posterior frontal approach. The postoperative mortality was two cases or 6 per cent (one by temporal, the other by frontal method). Complications such as hemiparesis occurred in seven cases, but in four of these, the weakness was transient and cleared up, yet 2 had remaining severe hemoplegia (one improved after craniotomy with removal of clot, the other died eventually). Only one patient (3 per cent) was considered permanently worse after chemopallidectomy. This was the individual who remained hemiparetic after removal of a clot.

Ten cases were unimproved (30%), ten slightly to moderately improved (30%) and ten showed striking improvement (30%). Thus, a total of twenty patients (60%) were improved. The effect on rigidity and hypokinesis was more definite and lasting than on tremor. In fact, tremor was never completely abolished yet was strikingly reduced in five cases. The majority of the patients showed a very mild postoperative mimetic facial paresis which, however, was of no practical consequence. Speech was less improved than the function of the extremities. Five patients had a temporary increase of dysarthria in the early postoperative period but two patients having bilateral chemopallidectomy showed definite and permanent increase of dysarthria and some dysphagia which rendered the postoperative nursing care difficult and prolonged.

Three patients of the series relapsed after initial improvement, whereas others manifested delayed progressive improvement after what appeared at first to be a mediocre result. In some of the patients with relapses, the lesions may have been too small, yet in others, equally-small lesions produced a good, lasting result. Even though the cannula was placed in the identical spot, the therapeutic results varied a great deal with different cases. Such variations may be attributed, firstly, to inconstant spread and tissue destruction by the injected chemical agent, secondly, to dif-

ferences in type and degree of the underlying disease process. As a rule, it is necessary to continue the use of antiparkinsonian drugs after chemopallidectomy in order to combat residual symptoms, but at any rate, the combination of surgical and medical therapy has been much more effective than either of them alone.

In summary, it must be again stated that pallidectomy may at times achieve worthwhile symptomatic relief but it does not cure the underlying disease. After bilateral chemopallidectomy, one patient stated: "Before my operation it took me, with help, twenty minutes to get dressed and now I can do it alone in five minutes." Although spectacular results are not often attained, even a slight improvement is gratefully acknowledged by the patients who are otherwise condemned to hopeless chronic invalidism. Crude and empirical as the method may be, it will undoubtedly stimulate further investigations. At the time of this writing, R. Meyers[15] is engaged in producing stereotaxic lesions in the globus pallidus and ansa lenticularis by means of focused ultrasound. It is hoped that studies of this kind will yield more information concerning the obscure neurophysiologic basis of "extrapyramidal" disorders.

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833 Lake Drive, S.E.
Grand Rapids, Michigan

A REPORT FROM THE CARDIAC STUDY GROUP

(Continued from Page 215)

incided with the need for an experimental surgical research laboratory for use not only by the cardiac surgeons, but also by the other branches of medicine and surgery.

Through the support of the Blodgett Memorial Hospital Research Fund and the Hartford Fund, such a surgical research laboratory has been built and equipped, and has been utilized especially, thus far, for cardiac research. However, with this stimulus it is most gratifying to find other comparable projects under way, or in the planning stage.

Medical Building
833 Lake Drive, S.E.
Grand Rapids, Michigan

Whooping Cough Studies in Grand Rapids and Kent County

By Grace Eldering, Sc.D.
Grand Rapids, Michigan

STUDIES on whooping cough in Grand Rapids and Kent County began twenty-five years ago at the branch laboratory of the Michigan Department of Health. By way of background, it should be recalled that during the period from 1930 to 1940, deaths from whooping cough in the United States were between 5,000 and 6,000 per year, 90 per cent of them in children under five years of age. Pertussis vaccine for active immunization had not been shown to be effective. There was even doubt that the bacillus of Bordet and Gengou was the etiologic agent, some workers believing that a virus was the cause.

Renewed interest in immunization against whooping cough resulted from work in different parts of the world. Leslie and Gardner's[1] classic report from England in 1931 described four phases of *Bordetella pertussis.** Although subsequent work showed that these phases represented only four of many stages in the dissociation of the organism from the smooth to the rough state, the report did give a clue to the inefficacy of the pertussis vaccines then in use. Certain cultures change during many serial transfers on laboratory media, losing their antigenic properties, and many of the early vaccines were prepared from such old laboratory strains. At about the same time, the Danish worker Madsen[2] used pertussis vaccine prepared from freshly isolated cultures in two epidemics in the Faroe Islands, and reported in 1933 that deaths were fewer in vaccinated than in unvaccinated children, and also that the incidence was reduced. Based upon the work of Madsen, Sauer[3] in Evanston, Illinois, inoculated children with a vaccine prepared from freshly isolated cultures, killed with phenol instead of heat. He used larger doses than had previously been employed, and reported in 1933 that no whooping cough had occurred among 300 vaccinated children.

*Formerly *Hemophilus pertussis.*

Diagnostic Cultures

In the fall of 1932, Dr. Pearl Kendrick, director of the State's branch laboratory in Grand Rapids, began collecting cultures from children with clinical whooping cough. Members of her staff and of the local health departments, and practicing physicians, assisted in establishing the cough plate method of Chievitz and Meyer[4] as a diagnostic procedure in the community. The period of infectivity was studied, and the usefulness of the culture method evaluated in diagnostic and release procedures. A published report (Kendrick and Eldering[5]), which was in agreement with the findings of workers in other areas, showed that during the first two weeks of disease, nearly all cases could be confirmed by positive cultures, and that after the fourth week only about 10 per cent of the patients were bacteriologically positive. The cough plate method was most useful in the early stages of the disease before the development of the characteristic whoop, and in the atypical case in which the whoop is rare or lacking. Grand Rapids physicians have continued to use the culture method as a diagnostic aid. Usually patients are sent to the laboratory where cough plates are exposed, or exudate is obtained with a nasopharyngeal swab for inoculation of the medium.

TABLE I. WHOOPING COUGH IN MICHIGAN AND GRAND RAPIDS, 1932-1956

5 Year Periods	Michigan		Grand Rapids	
	Cases	Deaths	Cases	Deaths
1932-1936	63,780	732	2,596	10
1937-1941	63,255	474	2,660	5
1942-1946	41,197	286	1,362	4
1947-1951	29,637	143	1,315	0
1952-1956	16,700	50	436	0

The parapertussis bacillus, a new species.—In the course of the diagnostic work a new bacterial species was found which was described in 1938[6] and given the name parapertussis, now *Bordetella parapertussis.* Since that time *B. parapertussis* has been isolated in many areas in this country, and also in other parts of the world, including

England, Denmark, Spain, Jugoslavia, Mexico, and South America. An epidemic of parapertussis infections in Copenhagen was described by Lautrop.[7] The incidence of *B. parapertussis* in the Grand Rapids area, as indicated by sixteen years' experience with diagnostic cultures, was reported in 1952.[8] At that time, more than 22,000 cough plates had been examined of which 4,377 were positive for *B. pertussis* and 106 for *B. parapertussis*. Over the sixteen-year period, *B. parapertussis* was isolated from 2 per cent of the patients with positive cultures. The 106 cultures represented sixty-five patients. Since the report, *B. parapertussis* has been recovered from forty-nine more patients, making 114 in all. Information from physicians indicates that parapertussis infections are, in general, mild and of short duration. Since the disease is of relatively slight public health significance in this area, no attempt has been made at specific immunization.

Pure culture studies.—The diagnostic work with cough plates provided an opportunity to build up a large collection of *B. pertussis* cultures. An intensive study was made of the characteristics of the species including variability among different cultures, biochemical reactions, growth requirements, and the effect upon experimental animals. In order to prevent changes occurring in cultures kept in the laboratory, they were frozen and dried in small ampoules, by the lyophile method. Now a collection of more than 700 tested cultures is maintained, and these are available to other laboratories, on request, for use in vaccine production or in experimental work.

Field Studies in Active Immunization

The diagnostic procedures and pure culture studies led to work in active immunization. A beginning was made with small lots of vaccine prepared from freshly isolated cultures grown on Bordet-Gengou medium. Merthiolate was used as the killing agent, since it was believed this would perhaps have less deleterious effect upon the antigen than heat. Among the first to receive this experimental vaccine were the children of a local pediatrician. Other physicians requested vaccine for immunization of their patients, and vaccine preparation was continued on a small scale.

In 1934, a plan was worked out for a field study in active immunization in which the incidence in vaccinated and non-vaccinated children could be compared. The objective was to find out if pertussis vaccine contained an antigen which would prevent the disease. School census lists were used to designate children for the vaccinated and control groups. The vaccine was prepared at the branch laboratory and administered at the City Health Department immunization clinic. Follow-up information on exposures to whooping cough and contraction of the disease was obtained by nurses at regular home visits. Detailed case histories were recorded for all cases that occurred in the study group. The work developed into a series of field studies, each with a particular objective. In Series I, reported in 1939 (Kendrick & Eldering[9]), there were 4,212 children between the ages of eight months and five years, 1,815 in the vaccine group and 2,397 in the unvaccinated control group. The two groups were analyzed with respect to various characteristics including the incidence of other childhood diseases, and were found to be similar. On the basis of person-years observation, the annual attack rates per 100 for vaccine and control groups were 2.3 and 15.1 respectively, or a ratio of about one to seven. Also the fifty-two attacks that occurred in the vaccinated children were milder than the 348 attacks in the control group.

Based on the demonstration of protection in the field studies, and on demands from physicians, the Michigan Department of Health started production of pertussis vaccine in the Biologic Products laboratory in Lansing. The vaccine used in subsequent field work in Grand Rapids was prepared in Lansing.

In a second field series, an alum precipitated vaccine was used, and in a third, reported in 1943,[10] pertussis vaccine was combined with diphtheria toxoid, and precipitated with alum. The effect of a reinforcing or booster injection was reported in 1946.[11] These studies confirmed the findings of Series I, and extended knowledge with respect to multiple antigens. Since then, the use of combined antigens has come to be an accepted procedure in this country, thus reducing the number of immunizing injections given to young children.

The results of the field studies in Grand Rapids were strengthened by confirmation by others, notably Perkins[12] in Binghamton, New York, using vaccine from Michigan. However, other very carefully conducted field trials in this country and in England showed little difference in attack rates

between vaccinated and control groups. The most likely explanation of the discrepancy seemed to lie in the vaccines themselves. There was thus an urgent need for a protection test in laboratory animals which could be used as a measure of the antigenicity of particular lots of vaccine—in other words, one that would differentiate between "good" and "poor" vaccines. Without such a test, the only course was to follow as closely as possible the procedure used for vaccine which had been shown to be protective in field studies. This situation precluded any changes in vaccine production methods, since obviously field studies could not be used for studying each and every change in technique.

Potency Tests

In the period from 1943 to 1947, a great deal of work was done in the Grand Rapids laboratory, and elsewhere, in developing a potency test in mice. Various routes were tried for injection of the vaccine and the living culture used for challenge. Different dosage schedules and different strains of mice were compared. The test, as finally described,[13] was the result of cooperative work in several laboratories. Vaccine was given in graded doses to groups of mice injected by the intraperitoneal route. After a rest period of about two weeks the mice were infected intracerebrally. The choice of a challenge culture of sufficient virulence was essential. The numbers of mice surviving the infection in the several dosage groups furnished the data for calculation of end points.

To express the potency of a vaccine, the response in terms of the amount of antigen required to protect 50 per cent of the mice was compared with the response to a reference vaccine. Since 1948, all pertussis vaccines released for distribution by manufacturing laboratories in the United States have been required by the National Institutes of Health[14] to pass such a mouse potency test. An international reference vaccine is currently being established by the World Health Organization for use in testing the potency of pertussis vaccines all over the world.

Work in Other Countries

Pertussis immunization programs in other countries were stimulated by the results of the Grand Rapids studies, and assistance was given in a variety of ways. Outlines of procedures were furnished, as well as cultures suitable for vaccine production. The particular culture which is used almost universally for challenge in potency tests of vaccine was isolated from a Grand Rapids child in 1944.

In 1940, Dr. Kendrick spent several months in Mexico at the Institute of Hygiene helping with pertussis vaccine production and with their immunization program. Later she was sent by the World Health Organization as a consultant on whooping cough immunization problems to several South American countries and also to England. In 1952, she attended a World Health Organization Conference in Dubrovnik, Yugoslavia, which was concerned with improving methods of preparation of diphtheria toxoid and pertussis vaccine. Dr. Kendrick is also a member of the Whooping Cough Immunization Committee of the British Medical Research Council. The series of field trials reported from England in 1951[15] and 1956[16] were conducted with precise adherence to criteria for controlled field studies. It is of interest that vaccine prepared in the Michigan Department of Health's Biologic Products Laboratory was used in their trials for comparison with other vaccines. The high index of protection of the Michigan product was the reference point for improvement in vaccine preparation procedures. The results of the English studies have added materially to the information concerning pertussis immunization. For example, there was for the first time an opportunity to show correlation between the results of potency tests of the different lots of vaccine with the protection against whooping cough in the vaccinated children. Considerable variation was demonstrated among fourteen lots of vaccine, both in mice and in children, and the correlation between laboratory and field results was good. Also, it was possible to study under controlled conditions the efficacy of vaccine prepared in fluid medium, and a soluble pertussis antigen described by Pillemer.[17]

Need for Continued Studies

In any immunization program there is need for continuing re-evaluation — first, in relation to changing community situations, and second, in regard to any newer knowledge concerning the particular product. There must be a constant effort to apply the results of laboratory and field investigations to the preparation of the immunizing agent and to immunization procedures.

Changing community problems.—As soon as pertussis vaccine came into general use controlled field trials were no longer possible in this area, and efforts were directed toward evaluating the effect of the immunization program on the incidence of whooping cough in the community. In 1950, a survey was made to determine the extent of immunization procedures in Grand Rapids. Questionnaries were mailed to mothers of all babies aged twelve and thirteen months, with follow-up by telephone or nurse's visit. An analysis of the replies published in 1952[18] indicated that 74 per cent of one-year-old infants had received two or more injections of pertussis vaccine.

It is not known whether an airborne bacterial disease, such as whooping cough, can be eliminated from a community by immunization, and if it is possible, what proportion of the population would have to be immunized to bring this about. Neither is it known how much the extent of immunization in this area has changed since the survey. Reported incidence and deaths from this disease are of interest in our attempt to judge the effectiveness of control methods. These figures are tabulated for Michigan and for Grand Rapids, by five-year periods from 1932 to 1956, giving total reported cases and deaths.

During the twenty-five years, reported cases of whooping cough in Michigan have decreased from an average of 12,760 per year during the period 1932 through 1936, to an average of 3,340 per year from 1952 through 1956, a reduction of 74 per cent. Similar figures for Grand Rapids indicate a decrease of 83 per cent. The reduction in deaths has been even greater. Whether these decreases were due entirely to specific immunization, or in part to other factors, is obviously impossible to know.

In the Grand Rapids area, there has been a shift in the age group affected by whooping cough, with more cases occurring in children ten years of age or older. This would suggest that older children need to be given booster injections of pertussis vaccine.

Continued laboratory studies.—Even when an immunizing agent has been shown to be effective and its use widely accepted, there must be continued effort to improve its potency, reduce reactions, and learn more about dosage schedules, the stability of the product, and other factors. With pertussis vaccine, little is known about the nature of the antigen which confers protection. The selection of particular cultures to use for vaccine preparation is made on the basis of growth characteristics and protection tests in mice. There may be other equally important criteria, still unknown. For example, serological differences can be demonstrated among cultures by agglutinin-adsorption tests.[19] In a study now in progress, the objective is to find out if there is any relation between the serological group and protective properties of vaccines prepared from individual cultures.

Concluding Remarks

The whooping cough studies in Grand Rapids and Kent County have been briefly reviewed. As in all scientific work, any progress has been the result of many investigators in many areas contributing new information or refuting or confirming earlier findings. Some of the less tangible results of the pertussis studies need comment. The controlled field trial of pertussis vaccine showed the importance of the method and led to similar trials of other products. Perhaps the most interesting fact was the demonstration of what can be accomplished by a whole community working together. Among the many who contributed to the success of the program were the parents and their children who accepted the requirements for test and control groups in the field trials. This acceptance was basic, and laid a foundation in the community upon which other studies could be built.

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Severe Crushing Injuries of the Chest

Management with the Mörch Respirator

By Leo J. Kenney, M.D., and
Ralph J. Schlosser, M.D.
Grand Rapids, Michigan

DESPITE the frequent admonitions for careful driving, and the safety devices employed in the modern automobile, the traffic accident remains an increasing hazard to all. Violent accidents with high-powered cars mean violent injuries, none more critical than the serious crush, or steering-wheel injury of the chest. These injuries account for 25 per cent of the fatalities from traffic accidents. It has been estimated that only one of four chest injury accident cases survive with conventional treatment. This is a distressingly low salvage rate. However, a recent development which lends considerable encouragement in the management of this type of injury is the Mörch respirator.[1]

The Mörch respirator, essentially, is an electric motor-driven piston which pulls air, or air-oxygen mixture, into a large cylinder, then passes it over a humidifier, and, by way of an exhalation valve, to the patient through a specially designed, uncuffed and swiveled, tracheostomy tube. The exhalation valve allows a passive exhalation by the patient, as the piston is drawing fresh air into the cylinder preparatory for the next stroke of passive, mechanical inspiration. The uncuffed tracheostomy tube permits an adequate tidal flow of low-pressure air to the lungs. The escape of air about the tracheotomy tube insures against overdistention of pulmonary parenchyma, and accomplishes partial laryngeal and tracheal toilet by blowing secretions from these areas into the mouth. Both the stroke rate and volume are readily adjustable on the machine so that the desired hyperventilation of an individual is easily obtained.

With the respirator in satisfactory adjustment for each patient, an alkalotic apnea is produced. This desired state of mild respiratory alkalosis keeps the patient euphoric and sedated. It is harmless. With the blowing off of CO_2, central nervous system stimulation of respiration is abolished. There are no muscular contractions of the rib cage, no overriding of the fractured ribs, and little or no pain. The fractured rib cage floats on a pneumatic cushion, much like a gently undulating small craft at sea. There is no paradoxical breathing, and no significant chest-wall deformity. With a rhythmic cycle of pain-free respiration, the patient quickly adjusts to the machine, and is remarkably free of distress. In essence, the machine reverses the trend toward increasing acidosis of hypoventilation. It brings about a remarkable salutary effect by a process which has been designated as internal pneumatic stabilization. We feel that the Mörch respirator is the greatest advancement in recent years for the treatment and salvage of these critically injured people.

In the past several months, we have treated three patients with severe crush injuries of the chest. The Mörch respirator was used on each patient. Two of the three patients survived the injury, and today are living and well. It is our opinion that none of these critically injured people could have survived without benefit of continuous mechanical ventilation.* We are presenting our experience in the management of these patients, and a brief résumé of the physiologic changes, and problems of treatment coincident with severe crush injuries of the chest.

Case Presentations

Case 1.—L. C., a forty-five-year-old, white man, construction worker, was admitted to Butterworth Hospital August 20, 957, with a severe crushing injury of the chest. While at work, he was crushed beneath an overturned heavy piece of road equipment, sustaining multiple rib fractures, fractures of the left humerus, radius, ulna, and right clavicle. On admission, he was in severe respiratory distress, from a flail chest, mediastinal and subcutaneous emphysema, and right pneumothorax. Measures to combat shock were instituted. Portable x-rays were taken. A tracheotomy was done immediately, and towel-clip fixation of the sternum established. A tube was inserted into the right pleural space, and drained to a waterseal bottle with suction. The extremity fractures were splinted. An electrocardiogram

*We are indebted to Doctors E. T. Mörch and E. E. Avery for their personal assistance in the management of these patients.

showed generalized flattening of the T-waves. During the next twenty-four hours, his general condition was critical. The right lung could not be expanded completely because of persistent broncho-pleural leak.



Fig. 1. *(above)* The Mörch respirator.

Fig. 2. R. V. (*Case 2*), showing the exhalation valve connected to the special, swiveled tracheotomy tube.

The day following admission, a Mörch respirator was secured. There was an immediate, dramatic improvement of the patient. The right lung expanded, and the pleural leaks quickly sealed off. Although a blood pH could not be obtained as a check, he was maintained safely in ten to fifteen second, pain-free apnea. The CO_2 ranged from 18 to 20 meq. during this period of respiratory alkalosis. Beginning August 30, 1957, the use of the respirator was gradually discontinued, and withdrawn completely, four days later. Definitive immobilization of the fractures was accomplished without incident. Bronchoscopy was negative on September 11, 1957, and the following day the tracheotomy tube was removed. The patient was discharged from the hospital on September 22, approximately one month after injury.

Case 2.—R. V., a nineteen-year-old white man, was admitted to St. Mary's Hospital August 26, 1957, with a severe steering-wheel injury of the chest incurred in an automobile accident. There were multiple rib fractures with a flail chest and marked paradoxical respiration. By x-ray there were findings of pulmonary contusion, mediastinal emphysema, extensive right hemothorax, left pneumothorax, and atelectasis of the right lung. The sternum was immediately elevated with towel-clip fixation, and a tracheotomy was done. Despite these measures, the patient was not adequately ventilated. Until a Mörch respirator could be secured, he was assisted in his ventilation for nearly twenty-four hours, during which time he was in considerable distress. Both chests were tube-drained. The Mörch respirator was started on August 27, 1957, with immediate loss of paradoxical motion of the chest, and marked symptomatic improvement of the patient. A series of electrocardiograms during the period of hospitalization showed the progressive changes of severe pericarditis, and cardiac contusion. On September 2, 1957, the respirator was progressively discontinued until one week later when removed completely. The trachea was examined with a bronchoscope on September 10, and the tracheotomy tube removed four days later. He was discharged on September 18, with no chest wall deformity, and both lung fields well aerated, clinically and by x-ray. One month later his electrocardiogram was normal.

Case 3.—A. K., a fifty-eight-year-old white man, was admitted to Butterworth Hospital on September 15, 1957, following an automobile accident. He was in a state of shock, with findings of multiple rib fractures, flail chest, fracture of the left ankle, and hematuria. A cystogram disclosed a ruptured urinary bladder. During the preparations for surgery, a pericardiocentesis was done to rule out tamponade, but only a few cubic centimeters of blood were obtained. The bladder rupture was repaired under endotracheal anesthesia, following which a tracheotomy was done, and connection made to a Mörch respirator. A medical consultant read the EKG to show supraventricular premature systoles, and T-wave changes on the basis of arterial hypertension. Quinidine was advised. The patient did well on the respirator, but developed some mild confusion, sweating, and restlessness, suggestive of an impending alcoholic withdrawal syndrome. On September 18, while joking with the special nurse, he suddenly became quite restless, exhibited obvious difficulty in ventilation, and developed puffiness of the face, as described in the nurse's notes. Before help could be obtained, he expired at 4:10 A.M. Unfortunately, no autopsy could be obtained, but it is believed that he died either of airway obstruction, or cardiac arrhythmia and arrest.

Discussion

The crushed chest produces profound physiologic disturbances which lead frequently to death unless their untoward effects are reversed. The bony thorax, because of multiple rib fractures, may lose its semirigid stability. During inspiration a section of the rib cage sinks inward, and during expiration, it is thrust outward. This paradoxical motion transfers poorly oxygenated

air from one lung to the opposite with each respiratory cycle. Hypoventilation is the result. The use of oxygen, tracheostomy, and skeletal fixation of the flail chest may restore adequate ventilation.

However, in many such injuries, these measures provide temporary improvement only. Inadequate pulmonary ventilation persists. To compensate for this deficiency, the patient must use his accessory muscles of respiration, as well as to increase his rate of breathing. Pain becomes severe from the grinding of overriding rib fragments. Tracheal and bronchial secretions can rapidly accumulate, and unless continuously removed, soon lead to atelectasis. Pulmonary hemorrhage and contusion, pneumothorax and hemothorax are frequent concomitants of the injury, and their presence aggravates an increasingly alarming situation.

Frequently, there are complicating injuries, such as fractures of the extremities, head injuries, penetrating or blunt trauma of the abdomen with associated visceral injury, cardiac contusion, and extensive soft tissue wounds. Acute pericardial tamponade, severe hemorrhage, and tension pneumothorax are some of the complications that demand immediate treatment.

Bleeding must be stopped, tamponade controlled with aspiration, tension pneumothorax and hemothorax relieved with aspiration and tube drainage, and an open, more efficient airway established. Endotracheal intubation, followed by tracheotomy, enables one to free the tracheobronchial tree of re-accumulating secretions, decrease the dead air space,[2] and reverse or aid in controlling impending pulmonary edema. For adequate evaluation of the extent of injury, an upright chest x-ray is vitally important, and should not be deferred. Intravenous infusion is begun, and all measures to combat shock are employed. Emergency treatment of chest wall instability may dictate compression dressing, or application of one of the various methods of skeletal fixation, until more adequate therapy is available. Associated injuries are given appropriate emergency treatment.

The above and similar measures in the management of the severely crushed chest are generally well understood in principle, and expeditiously employed in those hospitals which are called upon to treat the emergency-accident cases. Even in the best of hands, however, survival rates with the more severely injured are discouraging. We feel that the Mörch respirator will save 75 per cent of these critically injured people who otherwise would die with conventional treatment.

Once the principles are understood, the Mörch respirator is not difficult to use. As a base line for the average individual, the machine is set to deliver 2000 cc. of air at a rate of 24 respirations per minute. Adjustments are made from these settings to hyperventilate the patient and thereby obtain the desired period of apnea. Where facilities are available, the pH and CO_2 of the blood should be checked daily. Experience has shown, however, that when the patient is kept in a state of apnea, varying from 10 to 45 seconds, he is in a mild, safe range of respiratory alkalosis. One can check this period of apnea readily by merely shutting off the machine, and observing the time interval for the first efforts of voluntary muscular respiration. Appropriate adjustments of the volume flow and rate may then be made, if necessary. This method of bedside check serves as a simple, useful evaluation of the degree of respiratory alkalosis.

The care of the tracheostomy is vitally important. Any serious break in the prescribed routine may be lethal. Patients have been lost because of overwhelming pulmonary infection, or the development of an unrecognized obstructive plug of dried secretions. During the early critical days, special nurses, individually instructed in the use of the machine, and in the care of the tracheostomy, must be in constant attention. Tracheal aspiration employing sterile technique must be done at intervals as frequent as every fifteen to thirty minutes. Coude-tip catheters are used, and manipulated to aspirate both bronchi. Cultures of tracheal secretions are obtained regularly every three or four days. From sensitivity studies, the appropriate antibiotic is used systemically, and as a diluted irrigating solution, instilled in the tracheostomy, in medicine dropper amounts, before and after each aspiration. Mucolytic irrigating solutions, such as diluted alevaire (one part in four) may be used if tenacious and dried secretions become a problem.

The inner cannula of the tracheotomy tube must be changed frequently, cleaned with an alcohol solution, and reinserted. It has been convenient to have this done with each shift of special nurses. The entire tracheotomy tube, and the connecting tubing are changed once or twice

daily, with decreasing frequency as the problem of secretions diminish. For this purpose, it is most convenient to have a spare tracheotomy tube and connecting parts so that they may be sterilized and be constantly available. Sterile technique is used throughout these changes. Utmost care is essential to minimize the development of infection, and dangerous plugs of secretions.

The decision to taper off the use of the respirator, is made when little or no paradoxical motion of the chest wall is manifest during brief periods of voluntary breathing. This is an arbitrary, individual problem with each patient, depending on the extent of his injury. Progressively increasing trial periods, free of the respirator, are necessary to evaluate the patient's capacity to self-ventilate. Here, it is very important to reassure him that he can tolerate this withdrawal. Prior to complete removal of the ventilator, a bronchoscopy should be done through the tracheotomy wound to insure against an obstructing bed of granulation tissue. For the mental comfort of the patient, it is well to keep the respirator in the room one or two days after its discontinuance.

We have used the Mörch respirator, to date, only in crushing injuries of the chest. There are a number of other conditions where hypoventilation may be a real problem, and continuous mechanical ventilation could be used to advantage. Such conditions include certain head injuries, cerebral vascular accidents, paralytic poliomyelitis, tetanus, barbiturate and narcotic overdosage, pulmonary resection cases with borderline function, and with postoperative neurosurgical patients. Many of these situations are lethal because of the complications of insufficient pulmonary ventilation.

Summary and Conclusions

The crushed chest results in profound physiologic disturbances, frequently fatal, unless corrected. Conventional treatment of these injuries yields a distressingly low salvage rate. The Mörch respirator is a mechanical ventilator which offers considerable encouragement in treatment. The respirator operates on the principle of large volume, low pressure hyperventilation of the patient by way of a special tracheotomy tube, producing a state of apnea, with safe, mild alkalosis. It stabilizes a flail chest by a process described as internal pneumatic stabilization. During mechanical hyperventilation, the patient remains remarkably free of respiratory distress despite extensive injury of the bony thorax. There is no paradoxical respiration, and little or no pain.

Three illustrated cases are presented.

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610 Medical Arts Building
Grand Rapids 2, Michigan

SOCIALIZED DOCTORS

A London dispatch (NANA, Aug. 6) discloses that socialized medicine is causing British doctors to emigrate, creating a serious shortage of physicians in England. "The flight of doctors," says the story, "has reached such proportions that the British may ultimately have to apply to other English-speaking countries—such as the United States and Canada—for a transfusion of medical skill. Blame is being laid squarely at the feet of the socialized medicine authorities." Example: "Of all doctors qualifying at London's famed Guy's Hospital last year, 20 per cent of them emigrated."

Shades of Harry Truman and Oscar Ewing!—*Straight from the Shoulder,* October, 1957.

Fluoridation

An Advancement in Public Health

By Fred Wertheimer, D.D.S., M.P.H., F.A.C.D.
Lansing, Michigan

DURING the first half of the twentieth century many advancements were made in preventive medicine and public health. These advancements included: Almost universal acceptance of pasteurization of milk and chlorination of water; the development of new vaccines and antibiotic drugs; the development of new and more refined laboratory procedures to aid clinical diagnosis; the establishment of the relationship between carbohydrates and dental caries; and the formulation of the fluoride-dental caries hypothesis.

Early in the second half of this century the fluoride-dental caries hypothesis progressed from the hypothesis stage and gained recognition as a natural phenomenon. Since then, some professional public health workers (including Dr. Albert E. Heustis, Michigan's commissioner of health) have acclaimed water fluoridation as one of the greatest advancements in public health during this century.

Doctor Heustis has an overwhelming mass of scientific evidence to support his contention. The literature on the relationship of fluorine to dental disease is extensive and dates back to 1805 when Morichini,[1] an Italian chemist, reported that he found fluorine in human tooth enamel. In 1874, Ehrardt[2] reported that fluoride pastilles were being distributed in Freiburg to be used by pregnant women for the tooth development of their offspring. The fluoridation of water supplies was anticipated as far back as 1892 when an English physician, Sir James Crichton-Browne,[3] suggested "reintroduction into our diet, and especially into the diet of child-bearing women and of children, of a supply of fluorine to fortify the teeth of the next generation."

Fluoride-Caries Hypothesis

As often happens in the field of scientific investigation, proof that fluoride makes teeth resistant to decay was developed largely as a by-product of research into a different problem.

In 1908, Dr. Frederick McKay, a New York dentist who spent his vacations in Colorado Springs, endeavored to learn why the teeth of so many residents of the latter area were afflicted with peculiar markings. This condition, which he had never observed elsewhere, was so prevalent that it was known locally as "Colorado Brown Stain." The name was later changed to the more accurate descriptive term "mottled enamel" because the condition is not found exclusively in Colorado.

Although descriptions of what is now termed "mottled enamel" were given by Kuhns[4] in 1888 and Eager[5] in 1902, the first effective description was that of McKay and Black[6] in 1916. Doctor McKay had enlisted the help of some of the foremost dental scientists of that time and they made exhaustive studies in almost every community that reported a prevalence of mottled enamel. As their investigations progressed, they became firmly convinced that something in the drinking water of the areas was responsible for the marking on the teeth.

In 1931 Churchill,[7] a chemist, who, with the advice and help of McKay had analyzed waters from mottled enamel areas, reported fluorine as the cause of the condition.

Early in the investigations it was assumed that mottled teeth were more susceptible to decay because in many instances the enamel was defective. As the studies progressed, however, it was found that these teeth were much less susceptible to decay. In 1916, McKay and Black[6] stated that caries was no more prevalent in teeth that were mottled and in 1929 McKay[8] reported that he was surprised to find much less decay in mottled teeth than in those with so-called normal enamel.

The first attempt to study, specifically, the prevalence of dental caries in a mottled enamel area was that of Bunting[9] and associates. These scientists from the University of Michigan were asked

Dr. Wertheimer is Secretary of the Michigan State Dental Association and Director of the Division of Public Health Dentistry, Michigan Department of Health, Lansing, Michigan.

by Doctor McKay in 1927 to examine the mouths of children in Minonk, Illinois, a community with a high rate of mottled enamel.

It is interesting to note that the Michigan group reported, "There may be some principle in the drinking water which either inhibits the activity of dental caries or protects the teeth from injury." The water supply was subsequently found (Elvove 1933)[10] to contain 2.8 parts per million of fluoride.

The investigations of Dean, Jay, Arnold, McClure and Elvove[11,12] during the 1930's furnished most of the information which served as the basis for the formulation of the fluoride-dental caries hypothesis. These studies, now considered classic examples of thorough scientific investigation, showed conclusively that when a water supply contained from 1.0 to 1.5 parts of fluoride to a million parts of water, dental caries was reduced about two-thirds with no objectionable mottling.

Much speculation arose as to whether the favorable dental conditions that prevailed in natural fluoride areas could be duplicated by adding fluoride to water that did not contain a sufficient amount.

In 1944, Dean[13] stated, "It would seem that the next step would be a practical test of this hypothesis utilizing human populations."

Fluoride-Caries Relationship—A Natural Phenomenon

As previously mentioned, the University of Michigan's interest in fluoridation began in 1927; and the studies of Dean and associates, which were conducted under the auspices of the U. S. Public Health Service, began in the early 1930's. About 1938 it became quite apparent that if the fluoride-caries hypothesis proved correct—and there was no reason to assume that it would not—water fluoridation was destined to become an important part of public health. Therefore the Michigan Department of Health became interested.

It seemed a natural sequence of events for the above three organizations to co-operate in conducting the first test of the efficacy and practicability of adjusting the fluoride content of drinking water. So with the excellent support of the city officials, the medical and dental professions, and other interested persons, this study[14] started in Grand Rapids on January 25, 1945. Later in the same year, and in 1946, several other communities began studies.

By 1950, the anticipated reduced incidence of dental caries resulting from the addition of fluoride to drinking water was confirmed[14,15,16] and the fluoride-caries hypothesis became recognized as a natural phenomenon. National, state, and local professional organizations endorsed and recommended the procedure, and water fluoridation as an important contribution to public health was rather generally acknowledged.

Alleged Harmful Effects

Much controversy has arisen, in some instances, regarding supposedly harmful effects of minute quantities of fluoride in drinking water. Other than to say there is absolutely no foundation for rumors of this sort, it is not within the scope of this paper to discuss this phase of fluoridation. An overwhelming mass of scientific evidence firmly established the safety of the procedure years ago. Dr. Henry F. Helmholz,[17] former head of the pediatric department at the Mayo Clinic, states the entire case for fluoridation in the following sentences: "In not a single instance in which fluorides have been added to a water supply has it failed to reduce caries, and in not a single controlled study have any untoward effects been produced in the population, young or old. When for nineteen years an entire community can drink water containing 13.7 parts per million of fluorides without showing any disturbance in their physical health but severe mottling of their teeth, then it is sheer nonsense to talk about the poisonous effect of 1 part in a million of fluoride in drinking water to anyone."

Growth and Present Status of Fluoridation

The greatest argument for fluoridation is perhaps the steady growth it has had since it became recognized as an important public health measure in 1950. Prior to that time ninety-five communities were fluoridating. These included the early study areas plus a number of other places in which the benefits of fluoridation were foreseen. The population of these communities totaled about 1.6 million.

During 1951, 109 communities adopted fluoridation, followed by another 182 in 1952. The population benefiting from fluoridation at this time time reached 13.6 million.

Fluoridation has continued to gain each year and at the end of 1956—twelve years after the first study project began in Grand Rapids—the water supplies of 1,487 communities serving 31.4

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million persons were being treated according to this proven public health measure.

Progress during 1957 will equal or surpass that of previous years. At the end of last July, 1,557 communities were supplementing their water supplies with fluoride. Since then, Minneapolis has announced the initiation of a program which serves over half a million people.

During the last twelve years, eighty communities, which at one time supplied fluoridated water to 1,900,000 people, discontinued the procedure. Ten of these communities, serving 223,000 people, later reinstated fluoridation.

In 1956, 213 communities with a population of 6.6 million started using fluoridated water; sixteen communities with 184,546 residents, discontinued fluoridation, while four communities with a population of 38,369 reinstated fluoridation after previously abandoning it. This represents a gain of 201 communities and 6.5 million people during 1956.

There are eighteen cities in the United States with a population of more than 500,000. Ten of these cities, which contain 55 per cent of the total population of the eighteen, fluoridate their water.

In cities of 10,000 to 500,000 the percentage of the population drinking fluoridated water is 28 per cent, while in areas with populations of 2,500 to 10,000 the percentage drops to fifteen. In communities of less than 2,500 the percentage is only five.

This demonstrates the lag that always seems to exist between the larger and smaller communities in the adoption of public health measures. It apparently takes the smaller places longer to catch up, although there are many exceptions to this observation, especially in Michigan.

The decision to add fluoride to a water supply is usually the sole responsibility of the governing body of the community—the city council in most places. Composed largely of laymen, these groups often experience difficulty in weighing and evaluating scientific evidence. They are sometimes influenced by persons who talk loud, long, and impressively but who actually have no facts that will stand up under the light of unbiased scientific investigation. One sometimes wonders what is wrong with the world when a politician from Illinois, a manufacturer from Michigan, and an engineer from New England can influence intelligent people by questioning the validity of the Grand Rapids, Newburgh, and other data. Statistics is a highly specialized science, and none of the anti-fluoridationists has standing among professional statisticians. The statistical methods used in the leading fluoridation studies were set up, evaluated, and endorsed by some of the leading experts in this field. Numbered among these is Dr. Louis I. Dublin,[18] long recognized as one of the world's leading statisticians.

It has been suggested[19] that a layman in a position of authority should divide the question into the following parts when trying to decide if fluoridation is sound public policy: (1) the scientific; (2) the engineering; (3) the constitutional and legal.

1. The scientific question in turn can be broken down into several component questions: Does one part of fluoride to a million parts of water significantly reduce dental caries? Does this amount of fluoride have any harmful effects on humans, animals, or other living things? And is it injurious to any industrial processes? An affirmative answer to the first part of this question has been demonstrated, confirmed, and reconfirmed by several independently conducted investigations.[20-22] There is no doubt that one part of fluoride to a million parts of water significantly reduces dental caries. As for the other two parts of the scientific question, it is not within the scope of this paper to report the numerous investigations which conclusively show that this amount of fluoride is neither harmful to any living organism nor injurious to any industrial process. The fact that fluoridation of water has been endorsed by all the leading health organizations and agencies in the United States is sufficient evidence that the measure is completely safe.

2. The engineering question is: Can one part per million be added to the water supply without damage to the system, and can fluoridated water be delivered at this level at all taps in the city? Inasmuch as 1,557 communities in this country are successfully accomplishing this feat of engineering, obviously the answer to this question is yes.

3. The constitutional and legal question is: Does fluoridation of water infringe upon the constitutional rights of individuals, and is it legal? Numerous state courts have upheld the constitutionality and legality of fluoridation, and the United States Supreme Court has refused, on more than one occasion, to hear arguments on the constitutional grounds, as a waste of time.

Summary

The relationship between dental caries and the intake of fluoride during the time teeth are forming was first discovered during investigations of mottled enamel. This discovery led to the formulation of the fluoride-caries hypothesis which subsequently has been accepted as a natural phenomenon. This phenomenon is the basis for fluoridation of water for the partial prevention of dental caries as a public health measure. Fluoridation is effective, safe, practical, and economical, and with the possible exception of vaccination for poliomyelitis it is now the fastest growing of all public health measures.

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The Juvenile Amputee

By Charles H. Frantz, M.D.,
and George T. Aitken, M.D.
Grand Rapids, Michigan

IN THE past few years, the term "juvenile amputee" has been heard with increasing frequency. Interest in the child amputee has been manifested by the appearance of articles in the literature and an increasing number of amputee clinics exclusively devoted to children throughout this country.

During World War II, approximately seventeen thousand individuals in military service became amputees. In the same period of time, there were sixty-five thousand civilian amputations as the result of industrial accidents.

Physicians in this country who devote their time and skill to the care of children realize that the over-all picture of the crippled child problem is changing. Antibiotics have nearly eradicated bone and joint infections. Poliomyelitis, as a crippling disease, certainly appears to be coming under control. Trauma, however, as a "crippling agent" continues to increase.

Children in our communities are subject to the same trauma as adults. They are passengers in automobiles, ride bicycles on busy highways, wander into construction areas and railroad yards. Youngsters reared on the farm are exposed to severe injury from farm vehicles and complicated machinery employed in cultivation and the harvest.

Since 1946, 421 juvenile amputees have been examined, fitted with prostheses, trained in their use and followed in an organized out-patient clinic at the Mary Free Bed Children's Hospital. Area Child Amputee Center.

Nature of the Child Amputee

The child is a malleable young human. He is a complex system of muscles and nerves operating in space. He owns a progressively developing skeleton with a wide range of adaptibility. His motor patterns are not fixed; they are constantly improving on a progressive, orderly time scale with ever-increasing skill as he approaches maturity.

This flexibility allows young amputees to quickly adapt themselves to prostheses in a manner seldom accomplished by adults.

The young amputee grows up with his appliance, accepting it as a necessary component for his activities. A young amputee wearing his prosthesis constantly knows no other motor pattern during his growth and maturation. Although highly theoretical at the present state of our knowledge, it appears that a child may develop his equilibrium and proprioceptive sense through a prosthesis to a degree never reached by the adult amputee.

The child's skeleton grows as a part of his whole being. Longitudinal bone growth is one facet of an orderly proportionate total skeletal maturation. Amputation performed on an individual in whom this process is incomplete, implies certain alterations in form and internal architecture of the long bones and the axial skeleton.

Below-knee amputations occurring before the age of ten years will exhibit bowing (varus) and kyphosis of the stump as time goes on (Fig. 1). Hemi-atrophy of the ipsolateral side of the pelvis occurs following above-knee amputations (Fig. 2). Medium or long below-elbow stumps will sometimes demonstrate the radius growing slightly faster than the ulna, with bowing inward from functional pressure of the socket sleeve. Above-elbow amputees will exhibit humerus varus (Fig. 3).

Such manifestations in the child's skeleton point up a difference from adults. So far as can be determined, these changes do not alter functional results and seem to represent alterations in skeletal growth as a direct result of altered functional demands (Wolff's Law).

Children have greater reserve in all of their tissues. Collateral circulation is much more easily established than in adults. Degenerative changes in the vascular system are not encountered.

The complications of amputation commonly

From the Area Child Amputee Center, located at Mary Free Bed Children's Hospital, Grand Rapids, Michigan. The Center is under the aegis of Michigan Crippled Children Commission, Carleton Dean, M.D., Director.

seen in adults do not become major clinic problems in children. Spur formation on the bony stump is the rule rather than the exception. Management of a cut bone-end in children does not



Fig. 1. Below-knee stump x-ray of a twelve-year-old child. Amputated at eight years of age. Note kyphotic contour of the tibia, the varus blowing and tilt of the proximal tibial epiphyseal plate.

seem to influence significant spur formation. It has not been necessary in this series of cases to remove a spur from a long-bone stump because of clinical complaints (Fig. 4).

Symptomatic neuromata occur in children's stumps. This is an unusual complication with an incidence of 3.2 per cent in 196 cases. These symptomatic ones required excision of the offending nerve bulb.

Bursitis is an uncommon complication. This phenomenon occurs in very active elementary school-aged boys. The pre-tibial bursa between the skin and patellar tendon is traumatized by the shin socket. A bursal sac may form over the head of the fibula in below-knee cases. Rarely, the end of a humeral or tibial stump will develop an adventitial bursa from friction and pressure within a poorly fitting socket.

Phantom limb.—Over a period of seven years, forty children were questioned during each clinic visit as to the presence of a phantom limb. Thirty were able to "imagine" a phantom. The average age of this group was eleven and one-half years. Ten children unable to "call up" the mental image of the extremity were under ten years of age. The younger the child at the time of his amputation, the more likely he is to lose the extremity image as time passes.

Painful phantom limb is an entirely different



Fig. 2. The pelvis of a nineteen-year-old boy. Above-knee amputation at eight years of age. Note lag in development of the ilium. There is a short femoral neck. There is altered contour of the lesser trochanter and an atrophic femoral shaft.

clinical entity than the presence of a phantom limb. To date, there have been no cases in this series of painful phantom limb.

Stump overgrowth is a complication observed only in the child amputee. Amputees between the ages of six and ten years are beset with this problem. Eight months to a year or more from the date of amputation, the stump-end becomes tender, red and swollen. Untreated, the bony-end of the stump will protrude through the skin. This clinical phenomenon of overgrowth is a disproportion in growth between the bone end and the surrounding or covering soft tissues. The fibula is the most frequent offender. The tibia and humerus are second and third respectively in frequency (Fig. 5).

Overgrowth of the long-bone stump in the child is the one constant complication not seen in adults, and must be met by surgical refashioning of the stump. To date, this phenomenon has not been observed in the true congenital amputee unless the periosteum has been disturbed by surgical refashioning.

As a member of a family group, a child develops his character traits and habits proportionately to the influence of his parents and older siblings. Parental co-operation in maintaining a progressive program of limb-wearing is essential. Properly coached, guided and disciplined in the daily use of an artificial limb, the young amputee comes to accept the device to the same degree as

he does his clothing, eating habits and school routine.

Juvenile amputees should not be classed as crippled in the same sense as the post-poliomyelitis victim or the cerebral palsied patient. What is left of an extremity or segment of a limb usually is capable of motion in its proximal joint. There is no central nervous system impairment and the remainder of body function is under normal control.



Fig. 3. Shoulder of a twelve-year-old boy amputated at the age of two years. He has worn a prosthesis since seven years of age. Note bow of humeral shaft and varus tilt of the humeral head.



Fig. 4. Extensive spur formation at the distal end of bony stumps.

TABLE I. ANALYSIS OF NON-CONGENITAL AMPUTEES
196 cases

Emergency Amputations	Per Cent	Elective Amputations	Per Cent
Explosions	24.0	Infection	12.4
Vehicular accidents	19.5	Tumor	12.8
Power-tool accidents	13.0	Thermal injury	2.3
Railroad accidents	11.5	Nerve injury	2.4
		Miscellaneous	2.1
Total	68.0		32.0

Classification

From a clinical standpoint, it seems appropriate to classify the juvenile amputee according to etiology:

(1) Non-congenital (post-traumatic and surgical).

(2) Congenital (true congenital amputation or disarticulation).

Appendicular abnormalities that may be treated as amputees.

An analysis of 196 non-congenital amputees revealing the etiological environmental factors is given in Table I.

The fact that 68 per cent of these young amputees lost one or more extremities from *acute trauma* is food for thought. Many of these might have been prevented, had some degree of care been exercised.



Fig. 5. A typical below-knee stump in an eight-year-old. Note the fibula growing at a much faster rate than the tibia. The fibular spicule is about to penetrate through the skin.

One must proceed with caution when confronted with a child whose extremity is severely damaged. Many times, an initial examination may indicate extensive destruction of tissue that seems incompatible with function or survival of the limb.

However, examination under anaesthesia after debridement may be more encouraging.

Elective amputations in children may be approached with more deliberation, as the nature of the situation permits planning without the stress of the "time" factor. Function should never be sacrificed. A thorough knowledge of the contribution of the epiphyses of long bones to longitudinal growth is essential.

The congenital amputee is born with his handicap. This may be a partial loss of a segment of a limb (such as partial absence of the hand and forearm) or a disarticulation through the joint, wherein the segment is completely absent.

The true congenital amputee does not present any more difficulty in fitting with a standard type of prosthesis than does the post-surgical amputee.

Many bizarre abnormalities of extremities may be treated by the use of non-standard types of prostheses which will offer weight-bearing and some upper extremity function.

Fundamentally, the goal in attempting to rehabilitate the child amputee is to attain an acceptable degree of function in the fields of ambulation and prehension. Whether this be attained by appropriate footgear, sole-lifts, bracing, primary attempts at prosthetic fitting or surgical procedures, depends upon the experience of the attending physician and an objective projection by him of the patient's anticipated status in the future.

The family of a handicapped child will more often than not prefer non-surgical treatment, initially. Should a child be rehabilitated functionally, by the application of a non-standard prosthesis and training in its use, the parents are encouraged. Not infrequently, the parents manifest reluctance when advised that a surgical conversion of an extremity is necessary before rehabilitation can be instituted. For the good of the patient, it is desirable to attempt non-standard prosthetic fitting to an abnormal extremity when embarking on a program. Later, the necessity for surgical conversion to a more symmetrical stump to facilitate limb-fitting will be anticipated by the co-operative parent.

The tendency to postpone a surgical procedure to some later date in a child's life is ever present. In any program of management wherein amputation may be considered as a reconstructive procedure for congenital abnormalities, caution should be stressed. Reconstruction procedures have value only if function is improved. Cases must be individualized; skill and discretion should be the rule. It is unwise to consider amputation as a primary approach unless the answer to the presenting problem is very obvious. Should amputation be the answer to the functional problem, the surgeon must have available an expert prosthetist and facilities for training the young amputee (Fig. 6 A-D).

Age for Prosthetic Application

Too often in the past, children have gone empty-sleeved or have ambulated with the use of crutches. Many times the statement has been made, "Nothing should be done now; let us wait until Johnny can handle an artificial limb." Wait for what? A serious error is committed in assuming that the rapidly growing child needs only crutches until he reaches a relatively late period of his physical maturity. Such thinking overlooks the fact that growth and development are dependent in a large degree upon exercise and functional activity.

The young amputee must obviously have the potential skill for the proper control and function of the prosthesis. This potential implies motor and emotional development to a stage where the child will tolerate and mobilize the appliance.

When this stage has been reached, if the prosthesis is comfortable and mechanically sound, adequate training will produce good function.

Babies grow to adulthood in an orderly, progre sive fashion of ever-increasing neuromuscular skill. Man is the most complex of all mammals and takes longer to reach maturity than any other species. His kinesthetic time-scale is well regulated. To be sure, there are individual variations, but the basic pattern is built in and the normal infant is pre-destined to walk upright and carry out bilateral prehension.

The average age for children to stand upright and attempt locomotion is between ten and eighteen months. When this stage of his development is reached, a prosthesis should be fitted, no matter how simple the prescription. If the appliance is snugly harnessed for stability, the toddler amputee will ambulate. As time goes on and balance is developed, a more complex prescription approaching the conventional type of prosthesis is indicated.

The upper extremity pattern of development is more complex than that of the lower extremity. The child develops index finger-thumb prehen-

sion at forty weeks of age. At two years, he is turning door knobs and manipulating clay into simple forms.

cept verbal instruction. This level of motor-intellectual development has proven to be a very satisfactory period for applying an upper ex-



Fig. 6. (A) Congenital kyphosis of the tibia; absent fibula. (B) Tarsal fusion with three attenuated toes. So-called paraxial fibular heminelia. This anomaly causes a marked disproportion of the lower extremity, suggesting an "anthropoid." (Courtesy of Carl Badgley, M.D., University Hospital, Ann Arbor, Michigan.) (C) The feet have been removed by ankle disarticulation, preserving the distal tibial epiphyses. (D) Functional and cosmetic restoration by properly fitted conventional below-knee prostheses.

The four-year level demonstrates the child to be (from the psychological standpoint) responsive, proud of his accomplishments, and willing to accept verbal instruction. This level of motor-intellectual development has proven to be a very satisfactory period for applying an upper extremity prosthesis. At this period, the child can be trained to operate an active terminal device and realize its potential for practical use. One year of

wearing is afforded prior to entering kindergarten. Properly guided in this pre-school year, he will perform on a very satisfactory level when he begins his formal schooling (Fig. 7 A, B, C).

the body. A prosthetic device applied as a substitute for the hand can be fitted over the forearm and function as a relatively satisfactory prehension aid.



Fig. 7. Child, five years of age. Congenital absence of the hand. (B) The child after being fitted with a long below-elbow prosthesis. (C) Terminal device shown is of the voluntary-opening type.

Clinical observations on very young children for the past three years indicate that a child as young as twenty-five months will operate a voluntary-opening terminal device and will be mentally aware of the capabilities of this apparatus. Infants as young as five months will tolerate a passive plastic prosthesis to the arm and will follow normal kinesthetic patterns as demonstrated by creeping with the aid of the artificial limb (Fig. 8).

These observations may indicate that the optimum age for fitting upper extremity prosthesis is considerably younger than is now universally practiced. The presence of a passive device for the development of primitive patterns of reach may encourage a bilateral pattern in upper extremity function.

Amputation Levels and Prosthetic Types

Through the years, it has been observed that the higher the level of amputation of a limb, the greater the loss of function. A corollary to this fact is: the higher the level of amputation, the more complex the prosthesis. The loss of a hand is a severe handicap. However, the length of the forearm is preserved, elbow function is unimpaired, and what push-pull activity remains can be executed at a relatively normal distance from

The loss of the arm above the elbow is a much more serious handicap than loss at the wrist. Remaining function must be executed in a short radius, close to the body. Prosthetic restoration must supply adequate length, terminal device operation (as a substitute for the hand), and a mechanically operated elbow joint. The prosthetic problem here is much more complex than the below-elbow situation, and is more difficult for the young amputee to master.

These considerations are matched in the lower extremity, but not in such a complex manner. The loss of the foot and lower part of the leg is met by the application of an artificial foot, wood or plastic shin socket for the below-knee stump, hinged knee-joint and a lacer thigh-cuff. The amputee activates his knee-joint in a normal manner, with the ability to place the prosthetic shin-piece and foot at will during his walking.

Amputation above the knee is a more disabling handicap. The loss of the natural knee produces more problems in alignment, fitting and relearning natural walking patterns.

Young amputees do much better in prostheses than adult amputees. Their altered functional pattern seems to be developed with and dependent upon the presence of the appliance.

Amputation levels are designated both anatomically and prosthetically. In general, they are identical. The exceptions are the high above-knee (anatomically) which must be treated as a hip disarticulation prosthetically, and the high above-elbow (anatomically) which must be treated as a shoulder disarticulation prosthetically.



Fig. 8. Child, nine months of age. A congenital amputee with a short forearm stump. Fitted with a passive non-articulated type of prosthesis. This allows primitive two-handed "reach and hold" pattern.

Following World War II, many veteran amputees were returned to sound economic employment by the team approach, developed by the armed forces and the Veterans Administration. These teams consisted of a surgeon (clinic team chief), occupational and physical therapists, prosthetist and prosthetic instructor. This group of skilled individuals were able to meet most of the problems in the functional rehabilitation of the amputee. A psychologist or psychiatrist was a "sometimes" necessary consultant in orienting the amputee back into society.

The combined efforts of medicine and engineering produced major improvements in the mechanical components for artificial limbs under the stimulus of the National Research Council's Prosthetics Research Board.

At the present time, most of the mechanical devices utilized in the fabrication of adult prostheses are available in "scaled down" sizes for children.

The team approach has been brought into the field of the child amputee. Now he, too, has the

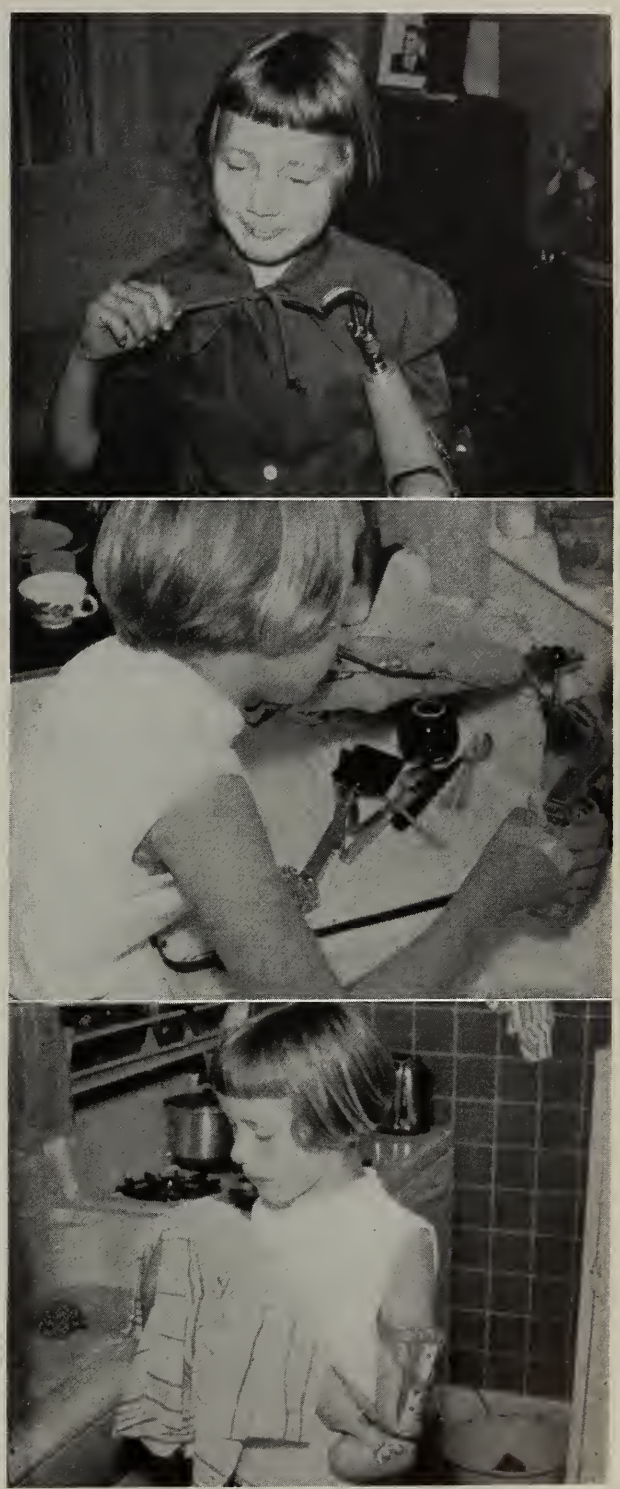


Fig. 9 (A) Ten-year-old girl demonstrating skills at tying a bow with the aid of a prosthesis. (B) Accomplishing kitchen tasks. (D) Drying water glass. This degree of function cannot be duplicated with a cosmetic hand.

opportunity to benefit from the combined skills of the physician, engineer and training technicians.

The ideal training program should be pursued in a well-equipped institution on an in-patient basis. An organized program will offer:



Fig. 10. (A and B) Traumatic wrist disarticulation at twelve and one-half years. Boy is now fifteen years of age. (C) Fitted with a wrist disarticulation type of prosthesis and voluntary-opening hook. Pronation-supination is possible at this level of amputation. (Insert) Fitted with APRL type of hand with cosmetic glove.

(1) Examination and evaluation of the child amputee.

(2) Pre-prosthetic corrective physical and occupational therapy, where needed.

(3) Fabrication and fitting of a prosthesis.

(4) Post-fitting, in-patient training periods and controlled recreational activities.

(5) Out-patient follow-up clinics, requiring a minimum of four visits annually, to correct mechanical defects from wear-and-tear, breakage or component failures. The ever-increasing growth of the child requires periodic lengthening and/or socket enlargement to accommodate for increase in muscle-mass and variations in height and weight.

Social Adjustment

It is the destiny of a child to mature. Eventually, he will become an adult and take his place in the social and economic world.

Social maladjustment, emotional and personality problems are seen in the juvenile amputees. After eleven years of working with this group it is the authors' opinion that such problems are neither more severe nor more frequent in the juvenile amputees than they are in other children with crippling and/or cosmetic deformities.

Many patients are from families with substandard incomes, some of whom are not well-adjusted as family groups. There are indifferent parents and over-solicitous parents. It has been stimulating, however, to observe the parental interest. Generally, they are co-operative, appreciative and demonstrate a fair insight about the problem and what it may imply for the child's adulthood.

Most upper-extremity-amputee patients of late elementary and high school age wish for cosmetic restoration. Those fitted early have accepted the hook as a terminal device and developed functional patterns acceptable to the prosthetic team (Figs. 9 A, B, C). At this time it becomes necessary to add the prosthetic hand as a complement. Some function is sacrificed, but the cosmetic gain is appreciated and desired by the patient. Eventually, the hook and hand are interchanged, depending on the functional requirements of the occasion (Figs. 10 A, B, C and Insert).

Conclusions

(1) Careful examination of the child and his stump will seldom indicate the necessity for primary surgical conversion or stump-refashioning.

(2) Short stumps, excessive scars, neuromata, spur formation and bursitis likely to plague the adult amputee are seldom causes for dysfunction in the child amputee.

(3) The juvenile's problem is usually the need for a comfortable, mechanically sound prosthesis and *training* in its use.

(4) The child amputee possesses a great potential for readily adjusting himself to altered functional demands. This is manifested by his ability

to quickly learn bi-pedal progression on an artificial leg and to acquire prehension skills with an a-sensory upper extremity prosthesis.

(5) Juvenile amputees as a group do not appear to manifest emotional disturbances any greater than those seen in the severely handicapped post-poliomyelitis victim or cerebral palsied.

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CRADLE-TO-GRAVE

The French cradle-to-grave welfare system hasn't overlooked anything—except the discovery of an inexhaustible source of sound money. The Government has established control over rent, prices and wages, has insured the citizens against accidents, sickness, death and the infirmities of old age, has subsidized wine production, new babies and big families. But its taxes (more than 40 per cent of the national income) cannot finance the full program. Thus deficit financing, rising debt and continuing inflation have become the pattern.

The income tax is stiff and graduated, but so many Frenchmen have cheated, and so many Government officials have allowed the cheating, that this tax has ceased to be a major money raiser. The Government today is getting 89 per cent of its revenue from hidden, indirect taxes on transactions! This is a wonderful political device. When virtually all government revenue is raised through hidden taxes, most of the people remain docile, apathetic to government. A research organization in Paris has calculated that, adding up the income tax and the hidden taxes, a French workingman benefits from only 55 per cent of his earnings. The rest—45 per cent—is his tax contribution to the Welfare State. —*National Education Program Letter*

Educational Cripples

A Study of Reading Failures

By Roy F. Street, Ph.D.
Grand Rapids, Michigan

MANY CHILDREN find their way into the physician's office, complaining of headaches, stomach aches, leg aches and numerous other distressing symptoms which do not seem to stem from any organic disorder. Many such problems seem to be associated with school, as the symptoms do not appear until after the child started school and often subside during the summer months. In addition, the parent often brings the child to the office with the statement that he is not doing well at school and that the teachers think there is something wrong with him. When no organic disorder can be found, the doctor (as well as the parent and the teacher) may be frustrated, especially if there are no facilities for psychological help.

The Doctor and the Reading Failure

If the cases are referred to a psychologist, he will find some of the following things to be true. Either the child has a developmental problem, there is some emotional disturbance, or he has not been able to learn to read. The slow developer needs a program adjusted to his rate of growth and the fast grower needs an enriched program. The emotionally disturbed child, who is having no trouble with reading, is usually having trouble with arithmetic and other subjects calling for sustained attention, and the basis for the trouble must be unearthed and dealt with, accordingly. The poor reader is in a bad predicament, as the farther he goes in school, the more handicapped he becomes. He quickly finds himself an educational cripple, receiving very little sympathy from anyone, and so he is prone to develop the secondary symptoms which bring him to the doctor.

A group of educational cripples will be analyzed in this study. Eclectic and historical material will not be introduced, as Dr. Schubert[3] has recently published a book which does this adequately. This will be a clinical study of 260 children seen within the past year. An effort will be made to characterize the kind of child who is prone to suffer from the inability to learn to read and to indicate fundamental causes. A brief report on a study of first grade failures will also be included to give perspective to the problem.

The cases have been divided into five general categories, with the emotional ones divided into three sub-categories. The accompanying table shows this distribution, as well as the relationship of each category to the whole. There are marked sex differences, as the table indicates. The cases were tabulated by age, but no significant difference in the ages was revealed. It might be interesting to note, however, that 102 cases were in the six to nine-year age group, 104 in the nine to twelve-year age group and fifty-four in the twelve to eighteen-year age group.

The Left-Eyed

Not all left-eyed children have trouble with reading, but some do, and they constitute a problem in themselves, because the correction or management should be different from the other types of cases. The characteristic of the left-eyed child is the tendency to read from right to left, and in some cases, to show minor inversion of letters. In these cases, the inversions can be corrected by pointing out what is being done wrong, so that the differences are recognized, and then by using the critical words in context a few times until the eye registers the letter correctly. We will see later that the sinistrad cannot do this visually. The right to left eye movement can be corrected by using a stylus or pencil over the line and forcing the eyes to move forward as the child reads orally. This requires strict individual control and the problem does not lend itself to group management.

Once sustained left-to-right eye movement is established, it is possible to introduce independent reading. The introduction of word recognition or work book methods seems to impede rather than to help a child with this problem. In order to avoid aggravating the problem, silent reading should not be undertaken until the correct eye movement is well established, and then only with material that is easy enough to require no struggle, preferably material that has been pre-read. Al-

though there are some right-eyed children who have the same visualization pattern and have to be treated in the same way, they are not common and none appeared in this study.

is complicated by the fact that some right-handed boys manifest the same pattern of behavior. Some are right-eyed, some are left-eyed, but the appearance of a mixed dominance does not seem to make much difference as far as management is concerned.

TABLE I. DISTRIBUTION OF 260 READING CASES

	Number			Per Cent of 260 Cases		
	Boys	Girls	Total	Boys	Girls	Total
Left-eyed only	16	1	17	6	.4	7
Left-eyed and emotional	28	7	35	11	3	13
Left-eyed and physical	4	4	8	1	2	3
Total number, left-eyed	48	12	60	18	5	23
Sinistrad only	28	1	29	11	.4	11
Sinistrad and emotional	22	2	24	8	1	9
Sinistrad and physical	6	0	6	2	0	2
Sinistrad, right handed	7	0	7	3	0	3
Total number, sinistrads	63	3	66	24	1	25
Alexia only	13	0	13	5	0	5
Alexia and emotional	5	1	6	2	.4	2
Alexia and physical	2	2	4	1	1	2
Total number of alexias	20	3	23	8	1	9
Visual and emotional	1	6	7	.4	2	3
Glandular and emotional	3	2	5	1	1	2
Total physical	4	8	12	1	3	5
Total emotional (only)	72	12	84	28	5	32
Total emotional and others	9	6	15	3	2	5
Total emotional	81	18	99	31	7	38
Fear of failure alone	46	7	53	18	3	20
Fear of failure and other	3	3	6	1	1	2
Total fear of failure	49	10	59	19	4	23
Anxiety alone	14	4	18	5	2	7
Anxiety and other	2	1	3	1	.4	1
Total anxiety	16	5	21	6	2	8
Allergic personality	12	1	13	5	.4	5
Allergic personality and other	4	2	6	1	1	2
Total allergic personality	16	3	19	6	1	7
Total	216	44	260	83	17	100

A theoretical discussion is not in order in this paper, but it is hard to keep from asking the question why some children have this peculiar visualization pattern.

It might be assumed that the child is using the left eye to lead and that fusion is not taking place, even though in testing he seems to be able to fuse. It is not easy to determine just what is happening in the normal reading and there may be some other explanation. The fact that about four times as many boys as girls will have this trouble, complicates our assumptions.

The Sinistrad

The sinistrads are the boys (and they are nearly always boys) who are left-handed or manifest the visualization pattern of the left-handed. This pattern is the tendency to work from bottom to top and from right to left. There are variations in degree, from those resembling the left-eyed to the mirror reader. Although Orton[2] thought that all such cases were mirror readers, subsequent research (with better methods for diagnosis) show that the mirror reader is very rare. The problem

The characteristic which marks this group is the strong tendency to invert letters or numbers as well as to reverse them, and to do the same with words when they try to learn to read. Many will tend to read from right to left, as does the left-eyed. With these cases, as different from the left-eyed, the letters and numbers must be properly oriented before the child can learn words. To achieve this orientation, the child must see or feel movement in order to correctly register what he sees. This is known as kinesthesis and seems to be the only way we have of assuring correction. These children are completely helpless when confronted with sight or phonic methods, which are the classical methods of teaching reading.

It is not surprising that so many of these children become so badly upset and develop serious frustration symptoms. It takes anywhere from a few weeks to years to correct this problem. Some will respond to appropriate methods in the classroom, others require the help of the reading therapist, but all need special, individual help.

Alexia

This group is much smaller than the preceding two, and most are boys. The term alexia is used psychologically rather than neurologically, because the method of determination is psychological and there is seldom any reason to suspect brain damage. These cases are marked by the simple fact that letters, numbers or words (or all three) cannot seem to register anything meaningful for the child. He is told what the symbol or word is and asked to identify it; he cannot do so. He is truly word-blind and as efforts are made to help, there is a vivid realization of just how appropriate this expression is. Fernald[1] some years ago reported good success using kinesthetic methods with these cases but I suspect most of her cases were sinistrads and not alexias.

Kinesthesis never works as a method in itself, I find. Correction or management can be as frustrating for the teacher as for the child and parent and there is little hope that much can be done in the classroom. Even the remedial teacher fails more often than she succeeds and, if she attempts word analysis methods such as phonics or kinesthesis, she will almost invariably come up with a letter reader. The reason for this is that the child uses whatever device the teacher uses, as a clue to meaning, and can never divorce the word from the clue. The basic method to succeed must use some kind of configurational device to make the symbol meaningful. Only the most skilled reading therapist seems to have the patience and the imagination to succeed.

It is very important to have an early and accurate diagnosis in order to avoid extreme discouragement on the part of the child and the parent, as well as to assure early and correct method of treatment.

These cases resemble the sinistrads in one respect, namely, that the characteristic seems to be inherited and is transmitted through the male side of the family.

The Physical Problem

Although all the literature emphasizes the importance of the physical factors in the reading failure, they are seldom the direct cause of difficulty. Even the far-sighted, who we know is handicapped in reading, may be able to make compensations and succeed rather well, although he may develop symptoms of strain. The physical factors seem more often to be aggravating, rather than primary causes.

In the group studied, one of the outstanding revelations is that more girls have serious visual problems and seem to become more upset and to have trouble learning to read than do the boys. This reverses the girl/boy ratio seen in all other types of reading failure. I did not realize this fact until the cases were tabulated for this study, but in looking back over the years, I find that this was true, right along. This finding is further emphasized by the fact that of the forty-four children in the group wearing glasses, seventeen were girls. This is 38 per cent of all the girls, while only 12 per cent of the boys had been fitted for glasses.

Why is it that, now and then, a child suffering a glandular disturbance cannot learn to read? I do not know, since there are many such cases having no trouble with learning. The problem is not hard to suspect, psychologically, since the reaction time is always delayed. The case seems always to be associated with an emotional reaction and perhaps it is the combination that results in failure. The management is difficult, requiring all the ingenuity that the expert therapist possesses.

There were no cases with hearing loss in this group. This is understandable when we realize that reading is primarily a visual skill. Now and then, there is a case with a hearing loss, but I doubt if it can ever be considered a primary cause of failure to learn to read.

Once in a while, anemia is a contributing factor if it happens to come at a critical time, but I have never known this to cause a child to fail to learn to read, in itself. Many other physical anomalies may seem to be associated with reading failure, but I doubt if they are ever primary. This may even be true with the more serious visual defects. It is amazing how well compensations can be made for this defect, if there are no complications.

The Emotional Problem

There are large numbers of children who, for one reason or another, become tense, fearful or anxious when learning a new skill. They constitute the largest single group having trouble with reading. The term "emotional" carries such an extensive connotation that I will break this group up into three categories for better understanding.

Fear of Failure.—By far the most numerous in this group, are the children who have a strong fear of failure. This may be strictly the child's nature or it may be re-enforced by a too demanding parent. In any case, when such a child attempts the learning of a new skill, he is in danger of tensing and impeding his own progress. This will apply to any skill where the first effort is not too successful. Such a child has often failed with swimming or other difficult skills before he undertakes reading and so he is quick to panic if he sees the child next to him sailing ahead when he is struggling. If this problem is recognized at once by a discerning teacher and steps taken to relieve the panic and to help bring success, complications and further failure can be avoided. If not, it can grow into devastating proportions. A wise parent can be helpful, but if too demanding, can increase the depth of the feeling.

Management involves reassurance, quickly stepping in to help, and praise for success. The help is the most important; to reassure without helping increases the panic. These cases can be managed in a classroom by a skilled teacher, which is not true of the cases in the three preceding categories. If the panic becomes too devastating, then a reading therapist must take over.

Anxiety.—There are some children who come to school with strong anxieties. They are so involved in their unconscious fears that they cannot attend long enough to a sustained task to succeed. It is this inability to sustain attention which differentiates this group from all others. Later, if the anxiety persists, there will be more trouble with the arithmetic than with the reading, since that skill requires an even greater power of concentration. This is an important factor in the diagnosis when dealing with older children. In all the preceding categories, the child does learn arithmetic without too much trouble and often excels, but not in this one.

Efforts to teach reading or any other skill, until the anxiety is removed, will prove fruitless. Perhaps these cases should never have been included in this study, but they have been for two reasons. One, the child and the parent are frequently so upset by the reading failure that it takes precedence in their minds and something must be done about it. Two, if a good reading therapist is available, it is sometimes easier to approach the problem of the anxiety through the attack on the reading. The reading can become a therapeutic procedure and is sometimes the most successful one.

Allergic Personality.—Some of the cases have been placed in this category because they now have, or have had previously, one kind of allergy or another, and they manifest a high sensitivity to all of life's stresses. If the learning of reading proves a little difficult for them, if they happen to have a teacher with whom they do not feel secure or if other children threaten them, they become tense and hard to manage and the allergy itself may be triggered off.

It is the management of this difficult, and sometimes erratic, behavior that makes the problem different from the others. If it is possible to bring these unpredictable feelings and behaviors under control, normal methods of reading instruction can be used. The problem can be managed by a skilful teacher in the classroom, but will respond better in a very small group where the teacher can give more time to the individual children. I have placed such children in a group with not more than four or five others and the teacher would wonder if they really were children with problems. Physicians treating allergic children need to be especially sensitive to the possibility of stress in the classroom and to give help to parent and teacher with the management.

Complications

It has been assumed, up to this point, that the reading problems can be clearly diagnosed and treated. This generalization has been necessary for purposes of exposition, but this is far from the truth. Frequently it is hard to discriminate one factor from another and to determine primary and secondary causes. Treatment is also very difficult, at times, because it may be necessary to start with the secondary rather than the primary factor, especially if this is tension. An effort has been made in the table to indicate the extent of these complications. The emotional cases seem to have fewer complications than the others, but this is because feeling is the more frequent complicating factor where it is not primary. It is the combination of the tensional or anxiety symptoms with other things that makes treatment so very difficult. Where we do not have complications, the treatment is much easier.

Visual and glandular problems can also complicate things very much, and sometimes just an ordinary physical illness, coming at a critical time, can interfere with the normal sequence of learning and create a problem. All of these things have to be taken into consideration in management. When the complications are very serious, even though the basic problem may have been amenable to treatment in the classroom, the reading therapist must be called upon for help.

The Six-Year-Old and His Reading

It is natural to ask, after this close look at the children who have seriously failed in trying to learn to read, how often does this occur in the school population? I will review a study made two years ago of the children in eight classes of first grade pupils from four different schools who were having difficulty when they first tried to read in a book. These children were selected by teachers, either on the basis of the teacher's judgment, reading readiness or maturity tests.

A word needs to be said about screening tests, for the results are often used unwisely by teachers and the repercussion can be heard as far as the doctor's office. A reading readiness, or a mental maturity test, is a group (pencil and paper) test which tells rather accurately what a child can do with certain kinds of maturity items. The reliability of such tests is rather good, but their danger is in the way they are used. They tell what a child can do, but not why; they are not diagnostic. A few examples will make this clear. A child may do badly because he can't see well, he can't hear well, he is fearful, he is restless and can't concentrate or he is distracted by his neighbor. There may be many reasons why he does poorly and, if the teacher looks at the total score and decides that the child is immature, she has done him a grave injustice. This can be a severe penalty, as no effort will be made to help him at the very moment when he needs it most. I do not believe that such tests, nor that teachers, themselves, can determine the causative factors that lead to failure. It was for this reason that the children in the group studied were screened by a psychologist.

Each child was seen individually and an effort made to determine the general basic causes of failure. This procedure is not a clinical one and is also subject to the error of all screening devices, but it is the most accurate method available and is essential in the prevention of reading failure.

What did the screening show? Twenty per cent of the children in the eight first grades were referred as not succeeding in their initial efforts to learn to read. Stated in reverse, eight out of ten were learning to read without too much trouble and by whatever method was being used. An analysis of the failing twenty per cent must be made in very general terms, since the screening does not make a refined diagnosis possible. One-half of the twenty per cent were found to be slow growers. They were not quite ready for the complicated task of learning to read. In the other half, where growth was normal, eight seemed to have a visual-perceptual problem (they are the ones that would fall in the clinical group of the left-eyed, sinistrads, alexia or physicals); two manifested serious emotional problems, apparently of an anxiety nature. Three of the ten slow growers had a visual-perceptual problem and one an emotional problem, so that when they are ready to learn to read, four will need special attention.

It is a fair assumption that fourteen out of one hundred children who are trying to learn to read at the age of six years will need extra help if they are to succeed. It is also a fair assumption, although not actually established in this study, that somewhere between 1 and 4 per cent will not learn to read with the best combined efforts of parents and regular classroom teachers and that the services of a reading therapist will be required. At the present time, the reading therapist is almost non-existent, and the problems of these children will accumulate until they constitute the group of seriously crippled children depicted in the clinical study.

Summary

1. About 14 per cent of the child population will have trouble learning to read.

2. From 1 to 4 per cent will develop serious enough problems to be called educational cripples and should have the best of clinical diagnosis and reading therapy.

3. Many will be seen by physicians because of the emotional reactions resulting from the failure or because of the deep concern of the parents.

4. The physician must turn to the nearest clinical psychologist for adequate diagnosis.

(Continued on Page 265)

The Thyroid Factor in Multiple Sclerosis

By Robert C. Moehlig, M.D.
Detroit, Michigan

THE PURPOSE of this article is to show the hereditary constitutional thyroid factor in the etiology of multiple sclerosis.

Geographical Distribution

The geographical distribution of multiple sclerosis parallels in a great measure that of simple goiter. Speaking of the geographical distribution of multiple sclerosis as found in the recruits of World War I, Davenport[1] said, "The resemblance of the distribution of multiple sclerosis to that of simple goiter is somewhat striking. In both diseases, comparatively few cases are found south of the Ohio River. The maximum rate is in Michigan, Wisconsin and the extreme Northwest. The negro race is not immune to the disease, although as indicated it, including Mulattoes, is probably less subject to the disease than the white race."

According to Bailey[2] (reporting on the incidence in World War I draftees) the Scandinavian race had the highest percentage of multiple sclerosis —12.5 per cent of 511 cases; while the African race accounted for 3.5 per cent. Brain[3] stated that multiple sclerosis is most prevalent in Northern Europe and Switzerland. He said that in England and Wales there are approximately 200 cases of multiple sclerosis per million of living persons or one in 5,000. In Switzerland, the incidence is nearly double this. These statements tend to support Davenport's observations that where goiter is endemic, there multiple sclerosis is more prevalent.

The maximum rate for multiple sclerosis in drafted men was found in the States of Michigan and Minnesota, each having eighteen per 100,000.

There are many recent studies, notably by Kurland and associates[4] on the geographical distribution as well as genetic studies of multiple sclerosis. They stated that it is rarely seen in the tropics. The impression of neurologists, they said, was that the disease is far less prevalent in Mediterranean regions than in Scandinavia and Britain. It is more prevalent in Canada and northern United States than in southern states.

Many cases of more than one patient with multiple sclerosis in a family are reported in the literature. These authors quote Pratt, Compston and McAlpine, giving the familial incidence in England as 6.5 per cent; Müller, in Sweden, as 3.6 per cent and Willis and Allison, in Northern Ireland, as 6.6 per cent.

Mackay reached the following conclusion (as cited by Kurland and associates): "The currently available evidence strongly suggests that multiple sclerosis exhibits a familial incidence more frequent than mere chance would determine. On the other hand multiple sclerosis is too often nonfamilial for a constitutional factor to be its sole cause."

Kurland[4] concluded that, "The most striking characteristic for multiple sclerosis is its rarity in the tropics and subtropics and its relatively high prevalence in regions with a colder climate. No selectivity for race or nationality was observed. The importance of a genetic factor in multiple sclerosis is equivocal and the data strongly suggests that an exogenous factor is of prime importance. . . . The data strongly suggests that for amyotrophic lateral sclerosis, exogenous factors are of little importace etiologically, it is inferred that this disorder is due to some as yet undetected metabolic disturbance that develops in adulthood and is often inherited."

Schumacher[5] from his studies noted the greater incidence of multiple sclerosis in colder climates. Though long noted, he said it has been supported recently by a statistical study of mortality and morbidity rates in fourteen countries, including the United States. This author, in a special and extensive review of the subject, discussed in detail the various aspects of the disease, such as the geographical distribution, etiological factors, pathology, signs and symptoms as well as treatment.

Since it seems to be the consensus that multiple sclerosis is more frequent in cold climates, then it is probable that the thyroid's influence on the

From the Department of Medicine, Harper Hospital and Wayne State University, Detroit, Michigan.

heat-regulating center, the hypothalamus, is a factor in the etiology of the disease. It is well known that a thyroid crisis is characterized by hyperthermia, delirium, insomnia, excessive perspiration and other symptoms indicating hypothalamic involvement. Since climate apparently is a factor in multiple sclerosis morbidity, then it is most likely that the thyroid plays a conspicuous role in the disease. This gland is a factor in metabolism and heat regulation, not the least of which is the effect it has on the nervous system, including the all-importance hypothalamus.

Since it is generally agreed that the tropics and subtropics have less multiple sclerosis than in colder regions, it is of interest to learn what factor or factors are responsible for this.

It was previously stated that the Negro, while not immune to the disease, was less susceptible. This race was originally from the tropics and, accordingly, from a region where multiple sclerosis was less common than in the colder climates. Is there a link between the Negro's relative immunity to multiple sclerosis and a uniqueness of his nervous system? Certain data suggests that this is true. The central nervous system is an ectodermal tissue and the Negro's ectoderm is relatively immune to disease, whereas his mesoderm is unusually susceptible. Some years ago in an article on the mesoderm of the Negro, the writer[6a] brought forth evidence to show that the mesodermal layer found in this race, had certain special characteristics. Cited, were the high incidence of mesodermal connective tissue involvement with keloids, fibroids of the uterus, strictures of the rectum and urethra, condylomata, mesodermal bone involvement such as gumma, rickets, osteomalacia; mesodermal pigment involvement as seen in the pigment of the corium; mesodermal lymph gland involvement as seen in lymphadenitis, granuloma inguinale, elephantiasis, tuberculous adenitis; a peculiarity of the mesodermal blood (as seen in sickle cell anemia), a relative immunity to pernicious anemia and thrombocytopenic purpura; mesodermal blood vessel involvement such as aortitis, aneurysm, meningovascular syphilis and tuberculosis, and arteriosclerosis.

These are some of the mesodermal tissues of the Negro which show a high susceptibility. The original article goes into more detail citing statistics.

The central nervous system of the Negro shows a certain immunity. For instance, despite the prevalence of syphilis in this race, the ectodermal nervous system suffers less from syphilis than does that of the white race. Tabes and paresis is not common in the Negro.

Goiter and multiple sclerosis seem to be a frequent combination and, therefore, it is of interest to determine if the goiter background is related to the etiology of multiple sclerosis. Many years ago the author[6b-e] called attention to the selective action of the thyroid gland on ectodermal tissues. The nervous system is, of course, an ectodermal tissue and influenced by the state of the thyroid. It is important in establishing the pathology of multiple sclerosis. One of the best studies on the pathology is that of Hassin.[7] He reviewed the histopathological changes in thirteen cases of multiple sclerosis stating that the earliest changes of multiple sclerosis obtain in the myelin and are in the nature of a peripheral neuritis. His general summary was as follows:

"1. Regressive and progressive ectodermogenic (neuronal degeneration and glia proliferation) associated with pronounced proliferative mesodermogenic changes (hyperplasia and thickening of the vessel walls, of the pia and septa; dilatation of the adventitial spaces and their infiltration with gitter cells).

2. Absence of significant ganglion cell changes of inflammation phenomena and of any relationship of the ectodermogenic changes to the territorial blood supply.

3. Absence of lipoids in the pia-arachnoid and the choroid plexus."

In his discussion, Hassin said:

"Of the foregoing phenomena, the most striking are the ectodermogenic changes. They primarily show as a neuronal degeneration which goes through the same successive stages and obeys the same laws so well brought out by A. Jacob in experimental secondary nerve degeneration. He showed conclusively that the various morphological glia changes—formation of cytoplasmic glia, myeloclasts, myelophages, gitter cells, glia scars—are all secondary phenomena, following a primary medullary destruction. The morphology of the glia, the type of its constitutional elements (cell bodies and fibers) thus depend upon the extent and severity of the parenchymatous lesions. In other words, the condition of the glia tissue denotes how far the nerve destruction has advanced."

The ectodermogenic changes with neuronal degeneration of the myelin sheath are comparable to the loss of insulation in electric wires or cables. It is emphasized that the neuroglia (a connective

tissue) is ectodermogenic in origin, thus having a unique distinction in that connective tissue elsewhere in the body is mesodermogenic in origin.

If the thyroid has a selective action on ectodermal tissues, then it may be a factor in the etiology of multiple sclerosis, in which the most striking changes are primarily in the ectodermal myelin sheath. It does not necessarily mean that an individual with multiple sclerosis has a goiter, but it does suggest that the function of the thyroid is disturbed in these individuals. It also suggests that there is a hereditary thyroid background in multiple sclerosis which produces a selective action on the ectodermal nervous system with consequent neuronal degeneration of glial tissue as the primary pathological change found in this disease.

Tending to show a relationship between multiple sclerosis and goiter, is my small series of eighteen cases of the former disease in which ten had a goiter, or approximately 55 per cent. There were ten female and eight male patients. The percentage of error in such a small series is great and, of course, no conclusions can be drawn. However, added to Davenport's[1] observation that "the resemblance of the distribution of multiple sclerosis to that of simple goiter is striking," the small series of patients having multiple sclerosis and goiter may be of significance. Particularly is this true because of the thyroid's effect on ectodermal tissues and specifically on the neurilemma or myelin sheath (the vulnerable nerve tissue primarily affected in multiple sclerosis).

Ten of my eighteen cases had a thyroidectomy. The pathological reports on these ten cases are of interest. They are as follows: (1) calcification of thyroid adenoma, degenerative cystic changes with material (one case); (2) colloid adenoma (three cases); (3) hemorrhagic cyst adenoma (three cases); (4) cystic adenoma with degeneration (one case); (5) fibrosis of thyroid (one case); (6) degenerative adenoma (one case).

These pathological findings would indicate that the thyroid was a degenerative type of gland with underfunctioning. This is true, clinically, as shown by the usual signs of hypothyroidism—dry skin, brittle nails, low temperature, ease of fatigue as well as a low basal metabolic rate.

Kraus and Pardee[8] stated that, "The thyroid as shown by the examination of moderately well advanced cases (of multiple sclerosis) showed evidence of being underactive in a large proportion of these. This was shown by the presence of scaling, dryness of the skin, falling out of the eyebrows and hair."

Some of my cases gave interesting family histories which have a bearing on multiple sclerosis.

Report of Case

A fifty-one-year-old woman, formerly a captain in the U. S. Army Corps, was one of nine children. She had four brothers and four sisters. One brother died at the age of thirty-five with multiple sclerosis. Another brother, aged fifty-four, died October 11, 1956, with amyotrophic lateral sclerosis. Both cases were diagnosed at the University of Michigan Hospital at Ann Arbor. Two sisters and a brother, as well as a niece (a sister's daughter) had a thyroidectomy for goiter. Another sister had "thyroid trouble."

From a physician who previously attended her, I obtained the following history: "Single nurse, age forty-six, was first seen in August, 1951. At that time she complained of pain in the right arm from the elbow on up over the shoulder and to the scapula. The pain was excruciating and kept the patient from sleeping. X-rays of the arm were negative. She was tried on both heat and cold, x-ray therapy and finally injection of novocaine by one of the local orthopedic men, and eventually was admitted to the hospital because of the severity of her symptoms. She was admitted to the hospital because of the possibility of one of the atypical polios because of acute pain to touch and pressure which she sustained in the trapezius, deltoid and other arm muscles. An attempt to elicit the biceps reflex would send the whole shoulder into marked spasm. She had limitation of abduction to a fair extent.

Sedimentation rate was 44 (corrected), white blood count was 7,500 with 75 per cent neutrophils. She had a temperature elevation of 99.6 once, only, during admission. Spinal fluid showed a slight elevation in protein, 48 milligrams. The lumbar puncture pressures were normal as was the Queckenstedt. Colloidal gold was 0012100000. Direct slide was negative. Culture of spinal fluid showed aerobic spore formers and green-producing streptococcus which must have been contaminant. The sugar was 30 to 40 milligrams. The chlorides, 790. The thing which fascinated me the most was that with the patient at rest in a sitting position, one could watch multiple fasciculations and fibrillations, particularly over the posterior third of the deltoid and over the scapular muscles. There also seemed to develop weakness of the flexors of the elbow and of the arm, also of the abductors and adductors of the arm on the right with some atrophy over the posterior third of the deltoid."

She was seen in a local hospital and reported to have "motor impairment of the right deltoid, pectoralis and triceps muscles with slight impairment to light touch and superficial pain senses in the dorsal and medial aspects of the right thumb and the medial aspect of the index finger, and some impairment of the triceps jerk in the right arm. In the legs there was marked impairment of the knee jerks bilaterally with complete absence of the ankle jerk. The plantar reflexes were markedly impaired and the abdominal reflexes absent."

Recently within the last few weeks there has been a return of the muscular fasciculations involving both arms, shoulders and the inner thigh muscles. The abdominal, patellar and ankle jerks are absent. The grip of both hands is weak with atrophy of the thenar and hypothenar eminences bilaterally.

From the above data it seems likely that, like her brother who had amyotrophic lateral sclerosis, she is developing symptoms of the same disease. Here then, we have a goiterous family, three of whom had a thyroidectomy, as well as a niece; a sister with "thyroid trouble;" a brother dead of multiple sclerosis; another brother dead of amyotrophic lateral sclerosis with the patient having signs and symptoms of amyotrophic lateral sclerosis. Certainly this family with a goiter background has a strong hereditary weakness and vulnerability of the central nervous system. I have seen three cases of amyotrophic lateral sclerosis, two of whom had a thyroidectomy for goiter many years before the onset of the sclerosis.

Of the females in this group, there was one who had menstruated but once in her life. Two of the patients were diagnosed in their incipiency and the diagnosis was subsequently confirmed by clinical signs as well as by neurosurgeons. One was a twenty-five-year-old male, whose father had a thyroidectomy for two large degenerating cystadenoma. In addition, the father had diabetes mellitus as did the mother. She also had a goiter and a uterine fibromyoma. A maternal aunt and uncle were diabetic. The father's features were acromegaloid. It was the fact that there was duoparental goiter in the family history which led to the early diagnosis of multiple sclerosis. By coincidence, a thirty-one-year-old Danish sales engineer who was employed by the father of the twenty-five-year-old multiple sclerosis victim cited above, had all the signs and symptoms of multiple sclerosis. He was studied and diagnosed at a hospital in Flint, Michigan. He had an enlarged thyroid, the basal metabolic rate was minus 6 per cent; the protein-bound iodine, 8 micrograms; blood cholesterol, 205 mg. per 100 cc. of blood.

Another twenty-six-year-old male with multiple sclerosis had an interesting family history of goiter. The father had a thyroidectomy for a hemorrhagic cyst and the mother had a colloid adenomatous goiter removed before the birth of the patient.

It is well known that stress, shock, infections, operations and fever may precepitate a thyroid disturbance.

If, as has been postulated, the thyroid is an etiological factor in the regressive and progressive ectodermogenic changes (neuronal degeneration and glia proliferation) through its influence on ectodermal tissues, then what of the treatment of this distressing disease?

It is a foregone conclusion that those cells which are degenerated are beyond hope of recovery. But what would seem to be a prophylactic measure, is the administration of thyroid to pregnant mothers, particularly in goiter belts when there is a familial history of goiter. From a study of the multiple sclerosis cases observed, I am of the opinion that the thyroid is underfunctioning and manifests itself quite early, around puberty, when the metabolism should increase. The evidence that infectious diseases and trauma may precipitate the onset of the disease by placing an additional burden on the thyroid, would suggest the use of thyroid to assist the overburdened degenerative thyroid gland.

Furthermore, it is suggested that there is a hereditary thyroid background in multiple sclerosis that produces a selective action on the ectodermal nervous system with consequent degeneration of glial tissue as the primary pathological change found in this disease. It is stressed that the neuroglia or neurilemma, a connective tissue, is ectodermal in origin, in contrast with connective tissue elsewhere in the body which is of mesodermal origin.

Summary

In the article, attention was called to the geographical distribution of multiple sclerosis which corresponds in a large measure with the geographical distribution of simple goiter. The Great Lakes region, the state of Washington, Switzerland, parts of England and Canada have a high incidence of multiple sclerosis and goiter. The highest incidence, according to most neurologists, is in the colder regions of the earth. The suggestion was made that the thyroid is more active in colder temperature, but in predisposed individuals, the thyroid does not respond sufficiently and degeneration of the neurilemma takes place.

It is generally agreed that multiple sclerosis is less frequent in the tropics and subtropics. While the Negro is not immune to the disease, this race is less susceptible. It was postulated that the Negro's ectoderm, of which the nervous system is a deriva-

tive, is relatively immune whereas his mesoderm is unusually susceptible to disease.

In a small series of eighteen cases of multiple sclerosis, ten of whom had a thyroidectomy, degenerative changes in the thyroid were found in all ten.

A case report is given of a nurse with suggestive amyotrophic lateral sclerosis symptoms and signs, whose one brother died of multiple sclerosis at the age of thirty-five and another recently died at the age of fifty-four with amyotrophic lateral sclerosis. Two sisters and a brother, as well as a niece, had a thyroidectomy for goiter. Other cases of multiple sclerosis are cited with a duoparental goiter background and an offspring eliciting multiple sclerosis.

It is suggested that the selective action of the thyroid on ectodermal tissues would explain the loss of the ectodermal myelin sheath or neurilemma, the primary step in the pathology of multiple sclerosis.

A large series of multiple sclerosis cases is necessary to substantiate or disprove the hypothesis advanced in the article.

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964 Fisher Building
Detroit 2, Michigan

TAXPAYERS PAY RECORD 80 BILLION

The American people paid a world's record $80,171,971,000 in taxes last year. Commissioner of Internal Revenue Russsell C. Harrington recently reported.

"Eighty billion dollars is more than all the internal revenue collected by the Government from 1789 through 1938," Harrington said.

The more than 80 billion dollars collected in the year ending June 30, 1957 (the Government's 1957 fiscal year) topped 1956 collections by $5,059,322,000, or almost 7 per cent. Harrington added.

"While all major classes of taxes contributed to the increase, the largest gain occurred in individual income and employment tax collections where the continued rise in personal incomes was reflected," Harrington said.

"Excise tax collections increased as a result of the higher rates and new taxes provided by the Highway Revenue Act.

"More than 93 million tax returns of all kinds were filed with us during fiscal 1957, an increase of nearly three million, or 3.2 per cent."

In Michigan, the tax collection for 1957 was $6,211,255,000, against $7,156,469.000 for 1956.—*Detroit Free Press,* November 7, 1957.

Psychotherapies in a General Hospital

By M. Ralph Kaufman, M.D.
New York, New York

IT HAS become customary to begin a discussion of psychotherapy in medicine with an observation which is both true and trite. This observation is to the effect that psychotherapy is the oldest branch of medicine, and that, indeed, initially practically the whole of the practice of medicine was based on concepts of the psychogenesis of disease.[1] Modern psychotherapy, therefore, is modern insofar as it relates to presentday scientifically oriented theoretical considerations. Such considerations if they are to maintain their integral relationship to medicine must of necessity run in the main stream of medical thinking. In other words, the same principles that are valid in chemotherapy must have validity in psychotherapy.

Psychiatry as a discipline and as a branch of medicine has taken its place as one of the basic sciences in medicine. There has been an increasing recognition of the paramount importance of the total individual and an increasing awareness of the integrative forces inherent in all living matter. The truly modern physician is now completely aware of the role that psychologic and emotional factors play in the physiologic and pathologic aspects of function. However, this awareness, in actual practice, may or may not be considered as part of the total evaluation of a given situation. There has been an increasing emphasis on psychiatry in all its aspects, preventive as well as therapeutic.

Some of us have had the impression that a great deal more has been promised than can be fulfilled. This is particularly true of psychotherapy. It would be a restricted point of view, however, to state that discussions about psychotherapy are relatively new phenomena. One has but to be reminded of the writings of Janet, especially his excellent volumes on "Psychological Healing,"[2] the translation of which was published in this country in 1925, but which represent a distillation of almost half a century's experience. In this connection it is also of some interest to quote Hugo Munsterberg who in 1909 wrote a book entitled "Psychotherapy."[3] In his preface he made the following statement:

> "There is perhaps too much talk afloat about psychotherapy. The widest circles cultivate the discussion, the magazines overflow with it. The duty of the scientific psychologist is accordingly not to stir up interest in this topic but to help in bringing this interest from mere gossip, vague mysticism and medical amateurishness to a clear understanding of the principles. What is needed in this time of faith-cures of 100 types is to deal with the whole circle of problems in a serious systematic way and to emphasize the aspect of scientific psychological theory. . . . The chief aim of this book is two-fold. It is a negative one. I want to counteract the misunderstandings which over-flood the whole field, especially by the careless mixing of mental and moral influences. And a positive one. I want to strengthen the public feeling that the time has come when every physician should systematically study psychology, the normal in the college years and the abnormal in the medical school. This demand of medical education cannot be postponed any longer."

The broadest definition of psychotherapy would include everything which is done to a patient which influences him through psychologic means. There are many factors in psychotherapy, some of which were discussed by the writer on previous occasions.[4] Those physical measures involving the whole gamut of therapeutic endeavor in medicine from chemotherapy, hydrotherapy, surgery, occupational therapy, perhaps even certain aspects of shock therapy and lobotomy, may have to a greater or lesser degree psychotherapeutic effects. Rational psychotherapy is possible only when the therapist is aware of the psychologic influences of his therapeutic measures. Rational psychotherapy may or may not be "good psychotherapy."

In medicine as in all scientific endeavors, there have been at least two possible avenues of approach to a problem—the empirical or pragmatic: that which works; and the approach based on certain theoretical concepts out of which flow the procedures utilized. The two may and usually do overlap. Modern psychotherapy, at least on

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Dr. Kaufman is Director, Department of Psychiatry, The Mount Sinai Hospital; Clinical Professor of Psychiatry, College of Physicians and Surgeons, Columbia University, New York, New York.

this continent, stems from two great schools of thought—Freudian psychoanalysis and the psychobiology of Adolf Meyer. Both schools are concerned with what might be called a dynamic approach to individual functioning.

The empiricists' approach to psychotherapy usually is limited to an interest in the status of symptoms or symptom complexes. When certain things are done or said or implied, certain complaints, symptoms and signs will remain fixed, will increase, will attenuate or disappear. Although much that passes for therapeutics in medicine is still limited to that kind of approach, nevertheless it runs counter to the basic scientific and philosophical theses of medical practice. Symptom therapy is justified, if it is justified, only in direct ratio of our ignorance of etiology. The fever of unknown origin may still be treated with antipyretics. The fever may disappear, but the fundamental underlying pathology is in no way altered. Aspirin for a headache is only justified when we know the cause of that headache, since it may be utilized as an analgesic in the face of an otherwise untreatable syndrome. The headache might quite readily be psychogenic due to eye-strain, a brain tumor, or any of the other 500 causes. Certainly no modern physician who is worth his salt or his fee does otherwise. Yet, when we come to the so-called functional difficulties, the aspirin treatment may be the rule rather than the exception.

Within the limitations of our presentday knowledge, in order to practice psychotherapy effectively, or, let us say, scientifically—the two, although not mutually exclusive, are not necessarily in a one-to-one correlation—one must have a frame of reference within which all aspects of the syndrome are related in a logical sequence. One naturally has to emphasize our limitations of knowledge, but one must not minimize the extent of the knowledge we do possess. As already stated, the psychotherapeutic approach, which may not and should not be the same for all cases, must relate to the theories of the etiology and the medical history of the syndrome involved.

There are certain basic principles within this frame of reference which must be highlighted. For instance, a psychotherapeutic approach, based on a theory which does not take cognizance of the role of the unconscious, will of necessity lead in a direction which is opposite to a theory in which the role of the unconscious is of paramount importance. Further, the particular hypothesis as to what that role is in human psychic functioning will determine the particular nuances of the methodology employed. Thus, as we know, the earlier work of Freud which was based essentially on the theory of the traumatic effect of the repressed unconscious material led to a technique which, briefly stated, was to make the unconscious conscious, first through hypnosis and then through free association. With further observation, theoretical consideration and a broadening of the knowledge of the factors of psychic functioning, modification in the therapeutic approach became necessary. These modifications in themselves led to further observations which led to other theories and hypotheses which then led to further modifications. The significance of the neurotic symptom as a compromise solution of conflict between the various forces within the individual indicated the biologic function of such symptoms.

To return to the analogy of the fever, one can see that treatment aimed primarily at symptoms may do injury to the organism. We do not attempt to attack the leukocytosis directly, since we know that this is an evidence of the attempts on the part of the organism to handle the noxious influence. If we knock out the hematopoietic system before, we deprive the body of its power of resistance. To have a knowledge of the significance of symptoms related to the total setting of the individual in his constitutional, biologic, psychologic and environmental aspects becomes of paramount importance, and our therapy must take all these factors into consideration. It may not be the best approach to take away the crutch that supports an amputee. The crutch may be too long or too short. A cane may do as a helping hand, and that may be one of the functions of a psychotherapist.

This paper is entitled psychotherapies rather than psychotherapy, since, as I have stated, there are many techniques and functions of psychotherapy. Granted the soundness of the theoretical basis for a psychotherapist's thinking, various forms of psychotherapy may be employed. However, whatever any individual's basic concepts may be, it is essential that his theory be capable of explaining within his frame of reference the results of all types of psychotherapeutic measures. There are, after all, basic natural laws which apply to the totality of human functioning. These

are not changed by our theories and hypotheses. Our theories and hypotheses are an endeavor to achieve insight and knowledge into what exists and not a magical means of transforming natural law into a mirror of our wishes.

In the light of the above it may be stated that psychotherapy in various forms is inherent in the art of the practice of medicine. The treatment of patients involves a continuing diagnostic acumen with the flexibility for whatever treatment emphasis becomes necessary at any given time. Such continuing responsibility for a patient can only be the responsibility of a physician. A split between psyche and soma runs contrary to all presentday concepts of the integration and function of the organism that is the patient. It is the basis for what is called psychosomatic medicine.

The implication is clear that only a profession which is trained in all aspects of the total functioning of the individual has the basis for the conceptual framework necessary for the treatment potential, of which psychotherapy may be only one facet. This type of training cannot be dichotomized and has implications for the training of the medical student, intern and resident. Unfortunately, for many reasons the training of the physician has become one-sided with an emphasis on the soma, which leads to a lack of sympathy and understanding of the psychic aspects, in spite of many worthwhile teaching programs in medical schools.

Psychiatry has become a basic science in medicine in the same way as physiology and should make a contribution to the training of the physician of the same order as physiology. Unfortunately, this involves an understanding acceptance of the basic modern concepts of psychiatry by the teacher. The physiologist, the anatomist, the pharmacologist and the clinician are the teachers with whom the responsibility lies for the molding of the young physician. And unless they set the example, the medical student will not benefit.

The patient-physician relationship has from time immemorial been recognized as basic in the art of the practice of medicine. The psychiatrist of today is well on his way to a contribution which will enable the practicing physician to partially transform the art into a science.

It should be stressed that psychotherapy in its various forms is a technical instrument, and therefore there can be no profession of psychotherapists as such, since a profession must have within itself the full potential for the management of all the varied problems that arise in its practice. While it is true that the practice of medicine at the present time is divided into major areas of specialization, nevertheless each practitioner in addition to the special training and skills in a particular area still has the total responsibility for the individual. This responsibility may be discharged in many ways including the collaborative working with other members of the medical profession and adjuvant professions. The psychiatrist as a member of the medical profession has developed refinements of diagnosis and therapeutic skills which makes him the elective physician for certain types of problems which fall within the range of the specialty of psychiatry.

The general hospital presents a series of unique situations which are unlike in many aspects any other therapeutic setting. The patient comes or is sent to the general hospital for complaints which either he or his physician consider to be of sufficient importance to warrant hospitalization. By and large these complaints are usually within the somatic sphere. It is of interest to note that psychologic factors have been implicated to a greater or lesser extent in anywhere from 50 per cent to 75 per cent of the practitioner's caseload. A recent study, for instance, indicated that in 1,000 unselected patients coming to a consultation clinic, 81.4 per cent of these patients had a psychiatric condition either of primary or secondary importance in the total clinical picture.[5]

This type of statistic may lead one away from the most important and significant fact, and that is that all individuals who are ill for whatever reasons react as human beings, and one cannot therefore dissociate the psychologic from the somatic. The individual patient with a malignancy, an ulcerative colitis or a manic-depressive psychosis needs to be understood and treated with the utilization of the complete armamentarium of the physician which, of course, includes psychotherapy.

Within the ward service and the outpatient clinics of the department of psychiatry, many psychotherapeutic approaches are utilized in addition to the necessary somatic and chemotherapeutic procedures indicated by the needs of the individual cases. Since the department staff consists of psychiatrists who are primarily oriented in dynamic psychiatry along psychoanalytic lines, the psychologic frame of reference is psychoanalytic.

Intensive individual psychotherapy in which the patient is seen daily is the practice of choice on the ward. As part of the training program for the residents, they are given the primary responsibility for continuing such treatment under supervision. Group therapy for ward patients and in a special outpatient clinic is the treatment of choice where indicated. A form of psychotherapy which has a dual function both in relation to the patient and to the referring physician is carried out as part of the assignment of the liaison psychiatrists. We are fortunate at The Mount Sinai Hospital in having a large number of liaison psychiatrists assigned to all the services and outpatient clinics. These psychiatrists act as consultants on the spot and members of the service team. In many instances a formulation of the patient's total situation, which includes an understanding of the psychologic and emotional factors, leads to a clarification and formulation of a treatment program which may be carried on by the internist, allergist or surgeon, as the case may be, in his role of physician. The team approach of psychiatrist, social worker, and psychologist is utilized in many instances. This approach is traditional in child psychiatry, but can be carried out successfully in the treatment of adults.

Case Reports

A number of cases have been selected to illustrate the varied psychotherapeutic problems that confront the physician in a general hospital and to demonstrate the role of the psychiatrist in the setting of a general hospital.

Case 1.—A young woman, aged twenty-five, who has suffered from asthma of increasing severity since the age of three, was first seen in the ENT outpatient clinic where a diagnosis of acute sinusitis was made, and she was admitted to the hospital for this condition. She had lost ten pounds in weight and was extremely tense. In addition, she had had recurrent attacks of abdominal pain and some diarrhea during the two weeks prior to her admission. Treatment on the ENT service resulted in some improvement within eight days. There was increasing anxiety, and she was seen by the liaison psychiatrist and transferred to the psychiatry service.

Following this transfer she developed a severe status asthmaticus which failed to respond to adrenalin and aminophylline. Her pulse rate rose to 140. As an emergency measure the patient was hypnotized. During this procedure it was suggested to her that her breathing would become "easy and regular." Within several minutes the status asthmaticus disappeared, and the patient went into a quiet, deep sleep.

The use of hypnosis as a psychotherapeutic measure was a purely emergency therapy. The patient subsequently developed some wheezing which responded readily to adrenalin, but it was possible to work through with her many complicated personality problems relating to her illness and her relationship to her family.

This patient is cited as an illustration of the use of hypnosis in an acute situation and to demonstrate its value when so utilized. Incidentally, hypnosis for this purpose has proved of value in five cases of status asthmaticus where no other procedure seemed to be effective.

A problem which is not infrequently met in a general hospital is the reaction of a patient to impending surgery. In most of these instances there is no question as to the need for such surgical intervention. We have had a number of patients who were to be admitted to the hospital for elective surgery who reacted with varying degrees of anxiety and, in many instances, were close to a panic reaction. It thus becomes the psychiatrist's role to help prepare such a patient to accept the surgical procedure with a minimum of anxiety.

Case 2.—One such patient was a twenty-two-year-old man, who four years previously had a left upper lobectomy, for a chronic lung abscess which apparently had been diagnosed at the age of five. He had been treated medically for this condition and was generally controlled with antibiotics until 1952, when he began to cough up blood and the lobectomy was performed at another hospital. He developed an empyema and had to be hospitalized for a thoracotomy and thoracoplastics. The last such procedure was performed two years previously, at which time he developed a marked anxiety reaction with a fear of impending death. He repeatedly rushed to the emergency room of the local hospital to be examined by the physicians and to be reassured about his life. He was afraid that something had gone wrong with his chest and that he was going to die instantaneously. In one instance, his panic reaction was so overwhelming that he had himself admitted to the psychiatric service of the county hospital for several days.

He developed chest sinuses and, in spite of the recommendations for additional surgery, he refused further surgical procedures. He developed a germ phobia and a compulsive handwashing, with persistent obsessional thoughts about eating bad food, about taking germs into his mouth which would cause his death; he felt he was being punished for something, that he was different from other people and was afraid to travel by himself unless accompanied by one of his parents. Because of his marked phobic reactions, he was admitted to a psychiatric hospital in February, 1956. Under psychotherapy, his health improved and he gained twenty pounds. He still was anxious and disturbed over

his chest condition and became quite panicky at any suggestion of further surgical intervention. Since this was considered necessary, he was transferred for surgical treatment from the psychiatric hospital to the psychiatry service of The Mount Sinai Hospital.

Physical examination and x-ray revealed a post-lobectomy and thorocoplastic status. The surgical consultant indicated that the surgical procedure would be necessary. The patient was extremely frightened, felt that he might die. At times he was afraid he was being punished by God, constantly ruminating about germs, illness, his difference from other people. He had a fear that he might suddenly strike out and hit people.

It is of course difficult to present a summary of an exceedingly complex psychotherapeutic relationship. The essential factor in this situation was the need to attenuate the patient's anxiety so that he would accept surgery with a minimum of psychic trauma. The therapist worked intensively with the patient and the patient's family, particularly with the father who was an aggressive, forceful individual who had laughed at the patient's anxiety, while the mother was oversolicitous and constantly worried about the patient and felt that he had become ill because he had not listened to her and had not worn warm clothes.

The previous physicians had indicated to the patient that unless he submitted to surgical intervention, he would develop amyloidosis and die. Gradually, the patient's phobic reaction was attenuated, and he was able to accept the fact that he was to be operated on. A conference with the chest surgeon and the anesthetist was held in which the details of the prospective operation were fully described and explained. A transfer of the patient to the surgical ward resulted in an increase of his anxiety, and he was retransferred to the psychiatry service and was accompanied from this service to the operating room by the psychiatrist whose patient he was two days later.

Postoperatively, there was some increase in anxiety and a great deal of pain. There was an uneventful postoperative course, and on the fourth day he was transferred back to the psychiatry service. Under frequent and continued psychotherapeutic sessions, his anxiety diminished and he was able, after three weeks, to discuss problems of vocational rehabilitation and made arrangements to start vocational training upon discharge from the hospital.

In this situation there was a twofold problem. An individual with a severe obsessive-compulsive character structure with overt neurotic symptoms was confronted by an immediate situation involving surgery. The psychiatrist's primary problem was preparing the patient for surgery. After this was accomplished, a treatment program was evolved relating to the basic neurotic difficulties of the patient.

Case 3.—A third type of problem is illustrated by a middle-aged woman who was moderately obese and hypertensive for a number of years who was admitted to the hospital for the regulation of her diabetes which had been discovered in the outpatient department a few weeks earlier. The house staff found it difficult to regulate her diabetes because she refused to take insulin injections or follow her diet. The liaison psychiatrist on the ward saw the patient, and it was clear to him that she considered her new disease as a punishment which she did not deserve but which fitted into her lifelong pattern of real and fantasied sorrow.

Her father had died in her adolescence. She was the oldest of five children, helped support the family while the mother remained at home. In her late thirties she married a man several years younger than herself because her mother had arranged the match. Her husband died after several years of marriage, and she remained with a child who has rheumatic heart disease. She had taken into her home a brother who was partially crippled by polio. Years ago she also took into her home an uncle who had lost a leg as a result of diabetes and gangrene. At the time of her admission, this uncle was in the hospital as a result of vascular disease in the other leg.

She had been treated for many years for her obesity and hypertension and always discarded her diets and medication. The only person with whom she had a really close relationship and who had any influence with her had been her mother, who controlled the patient indirectly through suggestions and insinuations. In the transference situation to the psychiatrist, he consciously assumed that type of role, and the patient subsequently readily submitted to the necessary insulin injections and accepted the diet as prescribed by the house staff.

These three cases illustrate what might be called limited objective therapies. In each instance, however, the management of the primary problem would have been impossible without working through the acute situation. The psychiatrist as a member of the medical profession and the staff of a general hospital can and does function in a collaborative relationship with his colleagues. His special training enables him to understand the psychologic and emotional problem of the individual patient with a certain subtlety and refinement that is perhaps not available to his other medical colleagues. However, the practice of psychotherapy in medicine is not his alone. The psychiatrist's precept and example may be of extreme value in demonstrating the role of psychotherapy in the practice of medicine, but psychotherapy is not limited only to his province. It is part and parcel of the art and science of the practice of medicine.

(References on Page 272)

The Detroit Physiological Society

ABSTRACTS OF PAPERS PRESENTED AT RECENT MEETINGS

THE INFLUENCE OF INCREASED CARBON DIOXIDE RETENTION ON LIVER FUNCTION IN THE DOG

By Edward L. Holmes and Marion I. Barnhart

Department of Physiology and Pharmacology
Wayne State University College of Medicine

An attempt has been made to evaluate the role of moderate increases in CO_2 in the blood on a specific organ function, namely the liver. The Bromsulphalein test was used as an indicator of liver function.

Increased retention of CO_2 ranging from 61-96 Vol% and the respiratory acidosis which existed resulted in dye retention considerable above control values. The range of increased dye retention was from 94-194%. Attempts at compensation were made but were not successful during the experimental period.

Anoxia was ruled out as a contributing factor as a high level of O_2 was maintained in the blood in all experiments. Actual CO_2 values were higher than expected and factors contributing to this were discussed.

Preliminary exploration of possible mechanisms underlying the BSP retention was undertaken. Blood pressure determinations were suggestive that circulation was not altered during the experiment. The role of pH was discussed and no appreciable effect could be noted. This work suggests that elevated CO_2 affects the parenchymal cells of the liver and impairs their capacity to eliminate bromsulphalein from the circulation.

STUDY OF THE CITRIC ACID CYCLE IN ERYTHROCYTES

By R. M. Dajani and J. M. Orten

Department of Physiological Chemistry,
Wayne State University College of Medicine

Previous investigators, notably Warburg, Michaelis and Barron, have established that nucleated avian erythrocytes have a high rate of respiration with a low aerobic and anerobic glycolysis. On the other hand, non-nucleated mammalian red cells have a low rate of respiration with a relatively high rate of aerobic and anaerobic glycolysis. Until recently, information concerning the precise pathways of respiration in these cells was rather scanty. Enzymatic studies carried out in a few other laboratories have suggested that the citric acid cycle apparently functions in avian erythrocytes. However, the actual oxidative pathways in red cells have not as yet been demonstrated. Moreover, the citric acid cycle has been implicated with little direct supporting evidence in the biosynthesis of the porphyrins and perhaps other substances in the nucleated erythrocyte by Shemin and his collaborators. It is apparent, therefore, that additional evidence is needed to determine whether the cycle in its classical form or a similar one is operative in erythrocytes.

In the present study, a direct approach to the problem has been pursued. The separation, identification, and measurement of the individual cycle acids after incubating erythrocytes with labeled precursors have furnished an answer to the question. The investigation was carried out on avian, canine, and bovine erythrocytes freed completely from leukocytes. C^{14}-labeled acetate or glycine were incubated with either the nucleated or non-nucleated red cells and the cycle acids were separated by column chromatography (on silica gel) and determined. Paper chromatography was employed to identify each acid and to further confirm the chromatogram obtained by column chromatography. The data obtained showed clearly that these simple substances were incorporated in the individual cycle acids separated from avian erythrocytes but not from mammalian cells. However, there were differences between the amounts and specific activities of the cycle acids when either acetate or glycine was used as a precursor. Also, there were differences in the extent of incorporation of the two compounds. Addition of fluoroacetate to nucleated red cell preparations increased the amount and activity of the citrate fraction and lowered to varying degrees the levels of the other cycle acids. The results thus conclusively demonstrated the occurrence of biosynthetic mechanisms in nucleated erythrocytes involving the citric acid cycle and that glycine contributes directly and indirectly to these biosynthetic pathways. Furthermore, the data point to the absence of the cycle from mammalian red cells.

The specific activities of the three tricarboxylic acids as well as that of succinic were higher than the Krebs cycle would account for if it were the only mechanism operating in nucleated erythrocytes. As an explanation, a "tail-to-tail condensation" of 2-carbon fragments at the methyl carbon atom may be suggested. Two molecules of acetate or glycine would thus condense to form succinate or fumarate, respectively. A still better explanation may be the "glyoxalate cycle" re-

cently postulated by Kornberg and Krebs to occur in certain microorganisms which could account for these higher activities. The confirmation of these hypotheses, of course, awaits further careful studies.

STUDIES ON CLOT RETRACTION

By Richard L. Fenichel and Walter H. Seegers

Dialysis of platelet homoginates removes material needed for clot retraction. Platelet homoginates, platelet dialysate and serotonin possess clot retraction potentialities. Plasma also contains materials concerned with clot retraction and when it is adsorbed with barium carbonate it loses clot retraction activity. This activity, which is adsorbed on barium carbonate, can be eluted with dilute sodium citrate solutions. The adsorbed factor(s) is believed to be a protein. Thus, a plasma protein and dialyzable platelet substane(s), which includes serotonin, are concerned with clot retraction. Even in low concentrations, glycerol interferes with clot retraction.

GLYCOPROTEIN PATTERNS OBTAINED BY THE ELECTROPHORETIC SEPARATION OF HUMAN SERUM ON STARCH

By Otto W. Neuhaus and Marcia Letzring

A modification of the Elson and Morgan procedure for hexosamines has been devised that is readily used in conjunction with zone electrophoresis on starch. Aliquots of the eluates from the starch segments were hydrolyzed, dried over KOH, and neutralized. The compound (s) formed by the hexosamines in the hydrolysate and acetylacetone was extracted with isoamyl alcohol and an aliquot of this extract was then treated with Ehrlich's reagent. This procedure minimizes interferences from hydrolysate color and non-glucosamine substances that frequently react with Ehrlich's reagent. Each step involved in this procedure has been studied to establish optimal conditions.

Protein and glycoprotein patterns were prepared with five normal individual sera and two pooled sera. Albumin, alpha-1, alpha-2, beta, and gamma fractions were evaluated planimetrically. Average values were obtained for hexosamine of 26.8 per cent in alpha-1, 33.0 per cent in alpha-2, 20.3 per cent in beta, and 19.8 per cent of the total in the gamma fractions. No significant hexosamine could be found in the albumin region. The average total hexosamine concentration for the sera used was 88.0 mg/100 ml.

EXPERIMENTAL FUNGUS INFECTIONS IN GUINEA PIGS

By H. Zackheim, L. Schroeder, and R. Key

Tinea capitis is still a prevalent disease among school children and remains a difficult therapeutic problem. Microsporum Audouini is the dominant causative organism in this area. The pathogenesis of tinea capitis is better understood than formerly but there are still many unanswered questions. Studies on experimental Microsporum Canis infections in guinea pigs were undertaken in an effort to throw further light on the problem. Prior feeding with high doses of molybdenum incorporated in the diet apparently gave two series of guinea pigs a significant resistance to M. Canis inoculation. However, on a different basic diet a high molybdenum content had no such effect. Prior feeding with about six other trace elements gave no resistance. Determinations of copper and molybdenum hair content after prior feeding with these metals were performed. Early observations on the use of defatted and non-defatted animal and human hair as a culture medium for pathogenic fungi will be given.

COUNCILOR'S LETTER

A resolution has been spread upon the minutes of The Council of the Michigan State Medical Society which has reference to the annual elections in each county society.

This resolution advises the various county societies to continue in office the same individuals as secretary and delegates for long terms instead of electing new members to these offices each year.

The work of the secretary has to be integrated with the activities of the State Medical Society continuously and the more the secretary knows about the policies of the State Medical Society, the better able he is to perform his job. It is almost impossible to become thoroughly familiar with the details of the job of Secretary in the matter of a few months. Many county societies have found it advisable to continue the same man in office for as many as twenty or thirty years and they have found that the longer the man is in office, the more efficiently the office is run.

Our delegates to the State Medical Society annual meeting are in a position to do much to bring the ideas of the individual members of the county societies to the attention of the State Society but they are rather ineffectual until they have become familiar with the workings of the House of Delegates and until they become well acquainted with the representatives from other counties, so they also should be continued in office for long terms.

I think that it is important that we consider these matters at this time, when our annual elections are our immediate concern.—William M. LeFevre, M.D., Councilor—11th District, in *The Bulletin*, December, 1957.

President's Message



Where Are We Going?

Last month we discussed the Forand Bill which was and still is of paramount interest to each of us. Do not delay conveying to your Congressional Representative and our two Senators the medical profession's united opposition to the proposal.

United we must be, because as we have mentioned before, the attempt is to achieve an overall end of federalized medical control through the inconspicuous means of fringe benefits and flank approaches. Patient care—yes, the "free choice of physician" and all that the term implies and has guaranteed in the past, may well become subservient to the capricious whims of some bureaucratic chief.

We, the American people, are in an era of *Socialization* as well as being led along the trail of *Socialism*. Socialization is the tendency of groups to organize and promote the interests shared by members of the group. As doctors of Medicine, our societies are part of this socialization and must deal with other similarily organized groups, whether they be hospital carriers, the federal government (Medicare, etc.) and our own plans such as Blue Shield.

Socialism, on the other hand, is "a political and economic theory of social organization based on collective or governmental ownership." Because of our basic fundamental training, we must be against Socialism. We must rededicate ourselves to our belief, and it is true, that the patient, and the care he receives, is what we are fighting for.

Michigan has taken the lead through our earlier Blue Shield program, our Veterans Home Town Medical Care Program, our Public Opinion Survey, our New Basic Principles of Prepayment Coverage, and other "Michigan Firsts." We have not only achieved these things, we have also been given a great responsibility to carry on, and not to let our public down.

United we can do it—and United we are going Onward.

Geo. K. Slagle.

President, Michigan State Medical Society

Editorial

NATIONAL LEGISLATIVE PROGRAM

No matter how much members of the medical profession may wish to devote full time to the practice of medicine there are certain legislative obligations to which we as doctors of medicine must give attention.

Forand Bill

First and foremost are the proposed prospective amendments to the social security act. The most important at the present time is the Forand Bill HR 9467, which among other things would provide hospitalization and medical and surgical services for persons eligible to benefits under the social security program. That would include persons over sixty-five years of age, wives over sixty-two, and the handicapped over fifty, making a considerable percentage of our total population.

The American Medical Association through its House of Delegates has officially opposed this measure and has appointed a "task force" to do research and to oppose the act in any way possible.

Regarding the proposed increase of benefits under this bill covering hospitalization and medical and surgical attention, it is fundamentally the responsibility of the state and local governments to care for the indigent and the medically indigent. Every state supplies food, clothing, shelter and medical attention. If any of the beneficiaries of the social security system are so situated that this payment is their only source of income, they should automatically become charges of their local governments rather than the federal government.

Provision could be made through recognition of principles and granting of authority by which the state social security department or welfare departments or responsible organizations utilize the insurance principle and contract with such voluntary, non-profit agencies as the Blue Cross, Blue Shield, to provide the necessary care for these people. We are confident this could be done; we hope it will be done; and we believe the costs would not greatly exceed what is now being spent in that very service so unsatisfactorily.

Social Security

The medical profession is the one group of any size in the whole United States which is not now covered by social security, either in groups or as individuals. Several attempts have been made to bring us into the fold but up to date they have been defeated. It is rumored another attempt will be made during 1958 to include the medical profession. The profession has opposed this action on several basic principles—one being that the whole social security program is uneconomic, the other being that if we were included we would automatically be denied the benefits for about seven years. Very few doctors of medicine retire as long as they can work and people call for their help. Persons on the social security rolls who earn more than $1,200 a year are not eligible to benefits until age 72. This restriction should be repealed.

There is another factor in the administration of the social security act which every beneficiary sooner or later must consider. The amounts of benefits were set up years ago and the value of the dollar has constantly decreased—3 per cent within the last year. The present dollar represents 49 per cent of the 1939 dollar. To a great proportion of the beneficiaries of social security this constantly diminishing benefit is practically the only means of support—we think the government should consider a program by which these benefits could follow the "cost of living" index which the government issues.

Offer a Solution

The medical profession of Michigan has never enjoyed the role of always being "against" some legislation—at least not in the open. We have proposed other methods of accomplishing the same purpose: (1) we were told by the late Senator Vandenberg that our Blue Cross and Blue Shield programs had prevented the enactment of the Wagner-Murray-Dingell Bills—socialized medicine—and to maintain that position of independent practice—we must make those programs continue successfully; (2) The "Michigan home town care for veterans" with service connected disabilities

corrected a condition of neglect and too expensive care which had developed in the Veterans Administration.

We believe the medical profession with a constructive program could activate the proposed changes in social security from an economic standpoint.

Our Statement of Position

The American Medical Association has requested a complete resurvey of the entire social security. It is so thoroughly well established and so many millions of people are depending on it in larger measure, that it will probably not be changed materially. History proves that great social movements carry on with minor modifications until they are completely accepted or until the whole economic structure collapses.

We propose that an active campaign be started to make one important modification in the administration of the act. The very name, Old Age Survivors Insurance, proclaims the insurance nature of the program. If that be true, anyone who attains the age of sixty-five (the present fixed retirement age) shall immediately become eligible to the guaranteed benefits. The punishment for earning merely $1,200 a year should be discontinued. The government would benefit by continued tax receipts. Such action would remove one main objection which the medical profession has always expressed to the act. It would allow the profession to continue taking care of our public. From a selfish standpoint we would also benefit because we are now paying the costs of the service—the same as every other employed or employing person, with the single exception of our personal tax contribution. We are collecting our employe's tax, matching it with our own and sending it into the government. We are also paying large chunks of this hidden tax every time we buy an automobile, television, radio, or even food and clothing, because that tax is included.

Jenkins-Keogh Bill

The Jenkins-Keogh Bill (HR 10-11) has been before Congress in some form or another for many years. The JOURNAL of the Michigan State Medical Society for over ten years has been advocating some measure of this nature, by which the self-employed persons, including doctors, may be upon a more equal footing, tax wise, with administrators in business and corporations. The present law allows corporations and institutions, employers of labor quite generally, to set aside out of their earnings before taxes or expenses, sums sufficient to establish endowment programs for their employed persons—very especially the executives and higher echelon people. Some of these programs set up a handsome income after retirement. All this is done before the employer, the corporation or the institution pays income tax.

The Jenkins-Keogh Bill is now having hearings and for the first time in years has some chances of passing. Letters to our congressmen and senators expressing our favor to this action would help its passage. This is not an amendment to the social security act but is an amendment to the basic income tax laws.

We have suggested several actions which we could actively support instead of oppose.

CONFLICTING MEETINGS

The Department of Postgraduate Medicine, University Hospital, Ann Arbor, in order to comply with requests of the Executive Committee of the Council regarding conflicting meetings, would like to receive the dates of contemplated annual meetings sponsored by hospitals, county medical societies or other organizations. This file will be kept as a source of information in planning postgraduate activities of the Michigan State Medical Society as well as a reference for anyone in the state who wishes to avoid conflicts in meeting dates. It is hoped the Department of Postgraduate Medicine will be placed on the mailing list for all such medical organizations.

FOOD FOR THOUGHT

Several recent radio and newspaper items are sufficient cause for the medical profession and for each individual practitioner to reflect whether he is rendering the best possible service to his patients. In general, we know he is but there have been some services which could be improved. About a year ago an epidemic of diphtheria broke out in Detroit. A large percentage of the children in this particular area for some reason had not rececived the normal protection uniformly given to all children by our modern pediatricians—that is the protection against diphtheria, et cetera.

Health officials, in general, recognize that if 60 or 70 per cent of the people are protected against some of the contagious diseases, the danger of epidemic is practically controlled. Public

health workers, at that time, cleared up the condition in Detroit. Just recently, there has been another report of diphtheria in Detroit, this time around 100 cases instead of over 1,000 and this time with no deaths in contrast to five last year. We believe that our pediatricians and our general practitioners are giving this protection to all of their young patients who come to them. Diphtheria is a preventable disease and if the profession is given a chance, it can be wiped out.

Recognition of the disease, however, is a different item. Probably two-thirds of our practitioners at the present time have never seen a case of diphtheria, but our older practitioners in the 1900's and 1910's saw plenty of it. They usually carried with them a stock of anti-toxin for immediate use. They recognized the disease even by the smell.

Smallpox

A report from the World Health Organization, part of which we quoted, indicates that smallpox has developed in many countries throughout the world—carried through air travel. Smallpox is preventable by vaccination, but many people have failed to be vaccinated. How long the vaccination protection lasts is much of a quandary. Our government officials require that it be repeated every third year and that travelers, when they come back to the United States, must present evidence of vaccination within two or three years.

Again, almost all of our present practitioners have never seen a smallpox case because vaccination has been almost universal and the disease has been under control. Our early practitioners, some of whom are still active, can remember this disease. In the early years of the century, special hospital wards or old homes were set aside and filled to overflowing with these patients. The editor was told of one health officer who found an infected family in one house, concentrated all the cases he could into that house and was so afraid of the disease himself, he stood 50 feet away, asked the patients to come to the door so that he could look at them and left medicine on the sidewalk for them to pick up later. When that epidemic was over he burned that house.

Polio

Radio and newspaper reports recently announced the super abundance of Salk vaccine for poliomyelitis. Industry is fearful it will have to destroy about 40 million doses which soon will have passed potency stage. The medical profession has been urging every person under forty to be vaccinated, but this same report of the accumulation of the vaccine stated that there were probably 30 or 40 million people under forty who have not been protected, and urged doctors who are in contact with any of these patients to use this vaccine. Another news item just recently received seems to confirm the value of this preventive measure for the polio. The Sister Kenny Foundation is expanding its services to cover rehabilitation, because of increasing numbers of vacant beds. Not enough paralytic cases are coming in to fill up the available facilities.

Incidentally, why should we stop at age forty in protecting our people. Polio does develop on occasions at much older ages and as long as the vaccine is being produced in sufficient quantity, why not run that age up at least to cover the active working periods?

Tuberculosis

The modern advanced treatment of tuberculosis if instituted early is clearing out our tuberculosis hospital beds to a great measure. For two or three years there have been more beds available and a question as to how to use the ones now vacated. The health department is reluctant to release them because there are still almost as many cases as we had in the past—the difference being that the treatment and the restoration to active life takes much less time, produces a much more vigorous patient, and again shows the advance of modern medicine.

Search for incipent cases is still very much needed because when they begin to produce noticeable symptoms, the disease is fairly well advanced. Chest x-rays have uncovered many early cases and should and will be continued. Progress in the treatment of tuberculosis is strikingly evidenced by the fact which we noted two or three years ago of the closing of the very first tuberculosis hospital at Saranac Lake, New York, for lack of patients.

Conquering Infectious Diseases

We have just outlined the progress and care of four contagious diseases. This is a sample of what has happened to many other conditions and accounts in large measure for the very low death rate of our younger people, infants and children and the fact that so large a percentage of our

population is now over sixty-five years of age. In fact, the life expectation of a baby born now has reached seventy years of age for men and a little over seventy-one for women. Better health care plus improved sanitation, better and more abundant food, better housing, have completely changed the picture of our population.

POTENTIALLY MEDICALLY INDIGENT

The *Detroit Free Press* for Sunday, December 29, contained the following: "Williams Lauds Work of Doctors." We believe we have demonstrated the ability of the profession in "its approach to meeting the medical needs of the people." The interest of the medical profession to increase the availability of care to people of low income has been demonstrated in many ways —primarily by the very thing for which the Governor praises us—the establishment of Blue Shield which in its first concept was to care for people of low income.

That limitation very early was found impractical. Co-workers could not be denied. Throughout the years, the Michigan medical profession has proven its interest. The home town care for veterans was the solution for a very aggravating situation which had developed in the Veterans Administration whereby many of the veterans of low income group were made to travel clear across the state and put to much inconvenience, expense, and loss of working time, to secure the needed attention. The home town care eliminated that problem. Michigan Medical Service donated its know-how completely. The government paid the actual expense of the service, but Michigan Medical Service has never made one cent of profit during the 11 years and the rendition of way over $10 million service.

The care of older people and the medically indigent evolves upon the social welfare department of our cities, counties and state. That care has never been satisfactory and has always been very poorly paid, in fact much of it has been freely rendered by the doctors through all the ages and is still so being done. Several years ago one of our county medical societies volunteered to give the indicated care to people in this category for the amount which the department was alotting to these people in the belief that if that money was properly directed it would very nearly cover and might completely cover these costs. Michigan Medical Service offered to administer the plan free as an experimental gesture. The offer was not accepted. We still believe it would work.

We doubt, very much if it is necessary for any person to go without medical attention. The Calhoun County Medical Society in the middle 30's made a survey of this question and found forty-four different agencies established and functioning whose objective was to give medical or hospital services or relief to the needy in many different medical fields. They found that practically every case would fit into some one of these fields. The same situation undoubtedly holds throughout the state.

In our modern times these relief agencies are less needed because most everybody can work if he wishes and most people can be cared for. In the early days Welfare Funds, Community Chests and religious and community relief agencies were equipped to care for most needy people. The hospitals were usually on the list for allotments—and generous ones in the early days, but it was found those funds were actually being used for "dead beat" cases. They were credited to people who refused to pay and made up the deficit which the hospitals were having. Some agencies are now available to aid people who find themselves handicapped in getting medical and hospital attention.

As an example, several years ago, the Community Chest of Battle Creek set up a fund to work in this field, with $9,000 available. For a couple of years not much was accomplished, then a reorganization was established and the Hospital Service Fund which we reported several years ago in The Journal, was incorporated and secured an adequate worker. Any patient who is rushed into the hospital, who does not have immediate resources, is visited by this agency or referred by the doctors or hospitals. There is no money to pay any bills but there is an immense amount of know how, investigation, research, contacts of all available relatives, friends, church organizations, fraternal organizations and employers, labor unions, et cetera. Some method is almost always found to carry the immediate burden. If not, the case is turned over to the county welfare department which has been very co-operative.

There are hundreds of these cases investigated each year and with complete satisfaction to the United Foundation, to the organizations who are contacted and to the doctors and the hospitals. This particular organization was sponsored and established by three doctors who were members of

the Community Chest, had been President of it, and who are still active on the Board, together with other chest board members.

KENNY FOUNDATION PIONEER IN REHABILITATION FIELD

Aware of the steadily increasing needs in the vast and complex area of rehabilitation, the Sister Elizabeth Kenny Foundation for several years has been broadening the scope of its activities to meet this challenge. With the knowledge that the Kenny medical techniques were beneficial for the treatment of many neuromuscular disorders other than polio, the Kenny Foundation Articles of Incorporation were amended in July, 1944, to enable it to care "for persons suffering from infantile paralysis and *other neuromuscular diseases.*" The continually expanding program of the Kenny Foundation, which includes medical research, sponsorship of fellows, medical seminars and scholarship grants, now extends advanced and comprehensive methods of modern rehabilitation to all the people of Michigan, regardless of race, creed or economic status, who are afflicted with nerve, muscle or joint disabilities.

In keeping with this, a new Kenny Rehabilitation Center, at 22646 Woodward Avenue, Ferndale, Michigan, was opened late in August and is presently in full operation. This out-patient facility, supplementing in-patient care of the Sister Kenny Polio Hospital in Farmington, Michigan, is one of the most modern in the United States, housing the latest in rehabilitation equipment, with medical examination and consultation rooms, physical and occupational therapy departments, and a specially designed rehabilitation kitchen for handicapped homemakers.

The Kenny rehabilitation service utilizes the team approach. A wide range of expert specialists constitutes the medical staff, which includes pediatrics, orthopedics, psychiatry, internal medicine, neurology, physiatrics, social and vocational counseling, physical and occupational therapy. This integrated team assists the disabled patient through the many phases of rehabilitation, enabling him to achieve fuller physical function, solve social and psychological problems, and thus return to a productive and self-respecting plane in daily life.

An important member of the team is the patient's family physician. His close consultation with other members is definitely encouraged. The patient has been his to care for before and will remain his patient after treatment at the Kenny Rehabilitation Center.

The Sister Kenny Foundation is supported by the Michigan United Fund and the United Foundation.

Bradley M. Harris, M.D.

BALM OF GILEAD

Long before any white men visited the O-Wash-Ta-Nong, Algonquin Indians had been frequenting the valley annually. Their primary objective was to visit a tree. This tree was such a rarity that long pilgrimages were endured to reach it, and—as would be a natural consequence—a tribal burial ground was dedicated at its site.

The tree in question was of the species Balm of Gilead (populus candicans). It was prized for the healing properties of its spring-time blossoms. Today, the burial plot is preserved on the Boylan centennial farm overlooking the Grand River, a few miles above the city of Grand Rapids. When the white settlers came to live in the valley, amity was preserved with the friendly natives. No plough-share has ever been allowed to desecrate the hallowed ground and until recently the migrants returned each spring to gather the fragrant blossoms and to tend the ancestral graves.

For the average American, a Balm of Gilead tree holds no special significance. To the Ottawa nation of Algonquin extraction, it was a happy reminder of their ancestral home in Canada, whence they had been forced to flee before the ravages of conquering Iroquois. In the vicinity of Montreal, such trees are common and are prized for medicinal purposes.

Western Michigan's medical tradition dates far back—even before the invasion of the Algonquin. A people far more advanced in medicine and in general culture occupied this territory. The Hopewell Mounds in and around Kent County reveal evidence of a superior race whose existence was mysteriously terminated. These Mound Builders were familiar with trephining and other surgical procedures, from which their successors had not been able to profit.

The first white settlers arrived in Grand Rapids in 1826, and within ten years two physicians joined the colony. With one of these, Charles Shepard, M.D., we are especially concerned as his long and distinguished career epitomizes all the era of medical progress from the primitive beginnings to the organized practice exemplified by the Kent Coun-

ty Medical Society and the Michigan State Medical Society.

Scarcely had Dr. Shepard arrived in the village when he was summoned back up the trail to the Thornapple River by Chief Hazy Cloud to vaccinate one hundred Indians who were threatened with smallpox.

Graduated at twenty-four years of age from the Medical College of Western New York, Dr. Shepard had boldly reined his mount towards the westering sun. The books and instruments contained in the saddle-bags constituted his entire worldly capital.

Somehow, the Valley of the Grand had captivated his imagination, as it had for many others. Not the least interesting of these was Bohemian Wenzel Blumrich, M.D., who in far-away Prague, sought to escape from the German persecution of 1848 and chose Grand Rapids as an asylum of refuge for his family. That, in itself, is a saga which merits a more complete retelling.

Before Dr. Shepard was well settled in his new home, a great tragedy struck the Great Lakes and especially Lake Michigan. An ugly November storm caught shipping unawares and a dozen ships were sunk. Word reached Grand Rapids that shipwrecked sailors were marooned on the heights above the Muskegon River. Dr. Shepard found eleven men huddled about an open fire with frozen limbs and faces. All night exposure on an open raft had brought them to this extremity. With only the instruments from his saddle bags, Dr. Shepard performed the need amputations without benefit of operating room, anesthesia or nursing assistance.

The young physician's reputation spread like wild-fire. Prestige so hardily won is not soon lost and the passing years only enhanced his reputation. He was a member of the American Microscopical Society, the American Association for the Advancement of Science and of the International Medical Congress. At his death in 1893, he was revered as one of the city's most illustrious citizens.

Charles Shepard lived in what might be called the Golden Age of General Practice. The family doctor held the center of the stage. Endowed with sound basic training he was wise in the Hermann Boerhaave tradition of bed-side technique, relying on symptoms and signs for proper diagnosis and treatment. This was before the day of gadgets and the era of specialization.

Lest we wax sentimental and feel sad at the thought that general practitioners like Dr. Shepard missed out on our modern miracles, we would do well to remember that the achievements of their age made possible the advantages which we enjoy today.

From Balm of Gilead to isotopes is indeed a big step, yet all this was accomplished in the memory of our great-grandmothers. We can be reasonably confident that such rapid progress will not encounter a stale-mate in our generation. The advances of the past century may well be eclipsed in the next.

Wm. R. Vis, M.D.

EDUCATIONAL CRIPPLES

(Continued from Page 246)

5. The reading therapist, who must be a special kind of person with special training, is rare, and the need for more such trained persons is great.

6. There are marked sex differences, with little basic research to give an explanation, although theories are rampant.

7. Although cases can be placed in general categories for the purpose of better understanding and to guide treatment, actually most are complicated and a challenge to the best of therapists.

8. The anguish and despair of these children, because of the hidden cause, is greater than in any of the other crippling conditions of childhood.

9. These children deserve better understanding and treatment than most of them receive.

10. The responsibility for better diagnosis and treatment falls between the public health services and the educational agencies. A concerted, cooperative effort on the part of both to alleviate the problem is urgently needed.

11. The physician with a broad understanding of the problem can materially aid in promoting better facilities for aiding the educational cripple.

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Michigan Clinical Institute

Electronics Extend Postgraduate Education

Closed circuit colorcasts of scientific importance to doctors of medicine attending the 12th Annual Michigan Clinical Institute in Detroit's Sheraton-Cadillac Hotel have been arranged for each meeting day from 1:00 p.m. to 2:30 p.m. The programs will emanate from the operating rooms of Ford Hospital on March 19, 20 and 21.

The visual teaching facilities will be provided through the splendid co-operation of Smith, Kline and French Laboratories of Philadelphia as in previous years.

Although the prime purpose of the SKF Color TV Unit is to facilitate postgraduate education of doctors of medicine, the public thirst for news of medical advancement is also recognized.

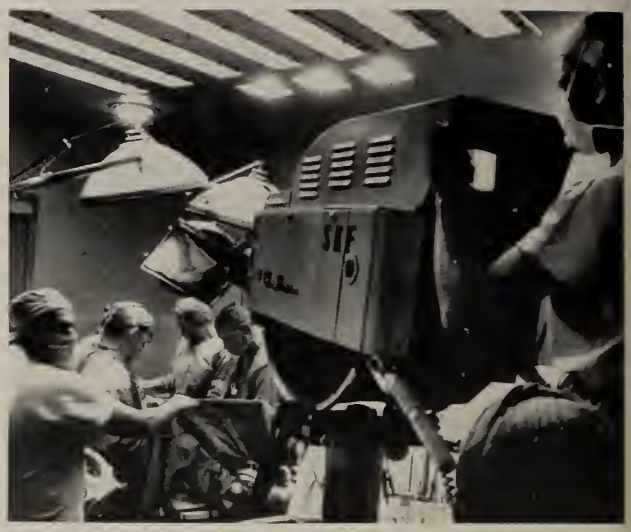
In 1957, for the first time in Michigan and only the second time in TV history, a live telecast of an actual heart operation was relayed to the public through the co-operation of SKF and WWJ-TV in Detroit. The program was broadcast in compatible color and carried over several Michigan stations. Because of the overwhelming public acclaim for this joint endeavor on the part of WWJ-TV, Smith, Kline and French Laboratories, and the Michigan medical profession, the one-hour program will be repeated this year on Tuesday evening, March 18.

From Ford Hospital's operating room, surgeons will perform a delicate vein procedure. In another "studio," a panel of doctors will explain the action by putting the story into everyday language.

The new SKF electronic color facilities provide medical postgraduate education with the latest in engineering equipment and know-how. The clinical content of the programs is determined by a committee of the Michigan State Medical Society which serves as co-ordinator with the profession, SKF and the television station.

MEETINGS OF ANCILLARY GROUPS

Annual Meeting of the Michigan Chapter, American College of Surgeons, Tuesday, March 18, 1958. Registration will begin at 8:00 a.m.; the program will run from 9:00 a.m. to 5:00 p.m.; reception and dinner beginning at 6:30 p.m.; evening program will follow the dinner—to be held in the English Room (Mezzanine Floor) of the Sheraton-Cadillac Hotel, Detroit. D. Emerick Szilagyi, M.D., Detroit, Program Chairman, states the scientific program will be very practical and useful. The papers will be of interest to general surgeons and those in the sub-specialties. Annual election of officers will be held at the close of the scientific meeting.



The Michigan Regional Committee on Trauma, American College of Surgeons, will meet for luncheon in the Sheraton Room of the Sheraton-Cadillac Hotel, Detroit, on Wednesday, March 19, beginning at 12:00 noon. All interested are invited to attend.

The Michigan Society of Neurology and Psychiatry will meet on Thursday, March 20, beginning with a 6:30 p.m. reception in the Sheraton Room of the Sheraton-Cadillac Hotel, Detroit, and followed by dinner at 7:00 p.m. in the Pan American Room. The subject of the evening program is: "Parkinson's Disease." Neuropathological considerations will be given by J. L. Chason, M.D., Detroit; neurological considerations by William C. Noshay, M.D., Detroit; neurosurgical treatment will be a joint presentation by Robert S. Knighton and H. Harvey Gass, M.D., of Detroit; and Eugene J. Alexander, M.D., Detroit, will present the psychiatric considerations.

The Michigan Proctologic Society will hold its meeting on Thursday, March 20, 1958 in Parlors G-H-I of the Sheraton-Cadillac Hotel, Detroit, in conjunction with that of the Michigan Clinical Institute.

Program

P.M.	
5:00	"Pruritus Ani"—Illustrated talk by H. I. Kallet, M.D., Detroit
5:15	"Two-team Technique in Abdomino-perineal Resections" by George Bradley, M.D., Detroit
5:30	"X-Ray Therapy for the Relief of Postoperative Pain" by K. L. Krabbenhoft, M.D., Detroit
5:45	"Chordotomy for the Relief of Intractable Postoperative Pain" by Philip J. Huber, M.D., Detroit
6:00	Reception
7:00	Dinner
8:00	Annual Business Meeting

Pediatricians to Hold Honorary Luncheon. A luncheon meeting will be held under the combined auspices of the Michigan Clinical Institute, the Michigan Branch of the American Academy of Pediatrics and the Detroit Pediatrics Society, Friday noon, March 21, 1958 in the Pan American Room of the Sheraton-Cadillac Hotel, Detroit—immediately following the morning Assembly of the MCI. The guests to be honored at this luncheon are: Clement A. Smith, M.D., Boston, Mass.; Paul V. Woolley, M.D., Detroit; and, Wm. M. Wallace, M.D., Cleveland, Ohio.

Wayne State University College of Medicine Alumni Association will maintain headquarters in the Sheraton-Cadillac Hotel during the Michigan Clinical Institute. Alumni, their guests, and friends of Wayne State are cordially invited to visit the headquarters. The room location will be posted near the registration desk.

ATTEND YOUR MICHIGAN CLINICAL INSTITUTE

P.G. Credits – including A.A.G.P.

REFRESHER COURSE

March 19-20-21

SCIENTIFIC CONTRIBUTIONS OF THE MCI TECHNICAL EXHIBIT

The technical exhibit is an essential part of the educational process of Michigan Clinical Institute. A considerable proportion of medical research is sponsored by many institutions and manufacturers whose displays are part of our exhibit. Year in and year out, they make substantial contributions to progress in Medicine. This year, they offer many new ideas in therapy and techniques.

Doctors of medicine are invited and urged to inspect the exhibits, to examine products and services, and to question the exhibitors on "what's new for me to use?" Discuss with these well-trained and informed exhibitors the uses of the products of their laboratories. Sample their professional knowledge, which is an adjunct to the scientific talks and other presentations of the Michigan Clinical Institute, all congregated in one spot for you, Doctor, so that you may serve the public better.

Booth Number	Company	City
1.	Health Insurance Council	New York, N. Y.
2.	W. B. Saunders Co.	Philadelphia, Pa.
3.	Hack Shoe Co.	Detroit
4.	Michigan Medical Service	Detroit
5.	E. R. Squibb & Sons	New York, N. Y.
6.	Schering Corporation	Bloomfield, N. J.
7.	Ayerst Laboratories	Chicago, Ill.
8.	Ross Laboratories, Inc.	Columbus, Ohio
9.	Meyer and Company	St. Clair Shores
10.	Baker Laboratories, Inc.	Cleveland, Ohio
11.	Ciba Pharmaceutical Products	Summit, N. J.
12.	Randolph Surgical Supply Co.	Detroit
13.	Randolph Surgical Supply Co.	Detroit
14.	Joseph E. Seagrams & Sons, Inc.	New York, N. Y.
15.	Wallace Laboratories	New Brunswick, N. J.
16.	Audograph Company	Detroit
17.	Audograph Company	Detroit
18.	The Upjohn Company	Kalamazoo
19.	Sanborn Company	Cambridge, Mass.
20.	Miller Surgical Company	Chicago, Ill.
21.	Merck Sharp & Dohme	Philadelphia, Pa.
22.	Smith, Kline & French Labs.	Philadelphia, Pa.
23.	A. H. Robins Co., Inc.	Richmond, Va.
24.	Sandoz Pharmaceuticals	Hanover, N. J.
25.	C. V. Mosby Company	St. Louis, Mo.
26.	Lederle Laboratories	Pearl River, N. Y.
27.	Baby Development Clinic	Chicago, Ill.
28.	Zimmer Mfg. Company	Toledo, Ohio
29.	Desitin Chemical Company	Providence, R. I.
30.	Gerber Products Company	Fremont
31.	Medco Products Company	Tulsa, Okla.
32.	A. Kuhlman & Company	Detroit
33.	Pet Milk Research Division	St. Louis, Mo.
34.	Medical Protective Company	Fort Wayne, Ind.
35.	Testagar & Company, Inc.	Detroit
36.	P. Lorillard Company, Inc.	New York, N. Y.
37.	Johnson & Johnson	New Brunswick, N. J.
38.	Abbott Laboratories	North Chicago, Ill.
39.	S. J. Tutag & Company	Detroit
40.	Detroit X-Ray Sales Company	Detroit
41.	Detroit X-Ray Sales Company	Detroit
42.	Parke, Davis & Company	Detroit
43.	Parke, Davis & Company	Detroit
44.	R. J. Reynolds Tobacco	Winston-Salem, N. C.
45.	Eaton Laboratories, Inc.	Norwich, N. Y.
46.	Milex Products	Oak Park
47.	Bristol-Myers Products Div.	New York, N. Y.
48.	Rupp & Bowman Company	Berkley
49.	U. S. Vitamin Corp.	New York, N. Y.
50.	American Ferment Co., Inc.	New York, N. Y.
51.	Geigy Chemical Corporation	Yonkers, N. Y.
52.	Wyeth Laboratories	Philadelphia, Pa.
53.	Purdue Frederick Company	New York, N. Y.
54.	Eli Lilly & Company	Indianapolis, Ind.
55.	Eli Lilly & Company	Indianapolis, Ind.
56.	Doho Chemical Corp.	New York, N. Y.
57.	Rystan Company, Inc.	Mount Vernon, N. Y.
58.	Arnar-Stone Labs., Inc.	Mount Prospect, Ill.
59.	Marion Laboratories, Inc.	Kansas City, Mo.
60.	Lloyd Brothers, Inc.	Cincinnati, Ohio
61.	Audio-Digest Foundation	Glendale, Calif.
62.	A. S. Aloe Company	St. Louis, Mo.
63.	American Cyanamid Company	Danbury, Conn.
64.	Cunningham Drug Stores, Inc.	Detroit
65.	Coca-Cola Company	Atlanta, Ga.
66.	Coca-Cola Company	Atlanta, Ga.
67.	G. A. Ingram Company	Detroit
68.	G. A. Ingram Company	Detroit
69.	Maico Detroit Company	Detroit
70.	Lea & Febiger	Philadelphia, Pa.
71.	Mead Johnson & Company	Evansville, Ind.
72.	Mead Johnson & Company	Evansville, Ind.
73.	G. D. Searle & Company	Chicago, Ill.
74.	Ferndale Surgical, Inc.	Ferndale

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

REGULATIONS GOVERNING THE USE OF RADIOACTIVE ISOTOPES, X-RADIATION AND ALL OTHER FORMS OF IONIZING RADIATION

"Regulations Governing the Use of Radioactive Isotopes, X-Radiation and All Other Forms of Ionizing Radiation" have been made a part of the Michigan Administrative Code. The Regulations were adopted by the State Health Commissioner acting in accordance with the provisions of Act 146 of 1919 as amended.

The regulations apply to all persons who receive, possess or use materials or devices capable of emitting ionizing radiation. Covered by specific sections are industrial, dental and medical uses. The Michigan Department of Health will administer the regulations.

The regulations are designed to protect those who work with ionizing radiation and the general public from the deleterious effects of radiation. However, as the regulations state, "nothing in these regulations should be interpreted as limiting the intentional exposure of patients to radiation for the purpose of medical diagnosis, medical therapy, or medical research."

Prior to formal adoption of the rules, the repeated advice of an expert committee was obtained, a public hearing was held, the Attorney General ruled on the form and legality of the regulations and they were concurred in by the Council of Health.

Serving on the committee which helped formulate the regulations were: T. B. Eberhard, M.D., St. Joseph Mercy Hospital, Ann Arbor; James E. Lofstrom, M.D., Wayne State University Medical School, Detroit; Howard Latourette, M.D., and Charles Simons, Ph.D., Department of Radiology, University of Michigan, Ann Arbor; K. E. Corrigan, Ph.D., William Beaumont Hospital, Royal Oak; Ardath H. Emmons, Phoenix Memorial Laboratory, University of Michigan, Ann Arbor; Alexander Somerville, Ph. D., General Motors Technical Center, Detroit; Lawrence G. Silverstein, The Dow Chemical Company, Midland; G. Hoyt Whipple, Ph.D., and John G. Feldes, Atomic Power Development Associates, Inc., Detroit; Walter Konn, General Motors Technical Center, Detroit; H. A. Ohlgren, Sc.D., College of Engineering, University of Michigan, Ann Arbor; and Kenneth A. Easlick, D.D.S., School of Dentistry, University of Michigan, Ann Arbor.

A nine-member Radiation Committee, appointed on the basis of their recognized knowledge in the field of radiation, will advise the State Health Commissioner on all matters pertaining to radiation protection. This committee will review the regulations at least once a year. The regulations are arranged so that changes can easily be made for each user group without disturbing rules covering other user groups.

The section of the regulations which requires the registration of all sources of ionizing radiation is of particular interest to members of the healing arts. Users of radiation equipment, including x-ray devices and isotopes should write to the Michigan Department of Health, Lansing 4, Michigan, and request registration forms.

Registration information required includes the name and address of the user or owner, the name of the person who operates the equipment and his training, and the storage, location, quantities and capacity of the source.

Following the original registration, prior approval from the Health Department will be necessary before any changes are made which will materially increase the potential health hazard. Eventually, all radiographic installations will be inspected.

During the past decade, several hundred radiation devices have been checked by the Michigan Department of Health's Division of Occupational Health. The health and safety standards for design, installation and operation of radiation equipment contained in the regulations are, for the most part, a formalization of practices developed over the years.

The regulations consist of a general section which sets up administrative rules and regulations and defines the various terms used in the regulations. Other sections cover Permissible Dose Levels and Concentrations, Excessive Exposures, Precautionary Procedures, Waste Disposal, Industrial Radiographic Installations, Medical Installations, Dental Radiographic Installations, Fluoroscopic Shoe X-Ray Machines and Miscellaneous Types of X-Ray Installations.

The chapter on medical installations is subdivided into sections covering requirements for therapeutic machines, teletherapy, diagnostic installations, mobile or portable diagnostic equipment and photo fluorographic equipment.

The rules covering the medical use of isotopes permits dose levels essentially the same as those required by the Atomic Energy Commission.

In every case, the purpose of the control is to encourage the safe use of atomic energy materials and radiation devices.

Exempt from control are materials of extremely low radioactivity, timepieces and certain types of electrical equipment, such as television sets.

POPULATION SOARING

About two-thirds of the student body at Wayne State University is drawn from Macomb, Oakland and Wayne Counties. Projections of this area's recent birth rates indicate a 50 per cent increase in the college age population by 1965 and a doubling by 1972.



Nilevar®

stimulates protein synthesis,
corrects negative nitrogen balance

Increased nitrogen loss, with resulting negative nitrogen balance, occurs in infection, trauma, major surgery, extensive burns, certain endocrine disorders and starvation and emaciation syndromes. The intrinsic control of protein metabolism is lost and a protein "catabolic state" occurs. A patient requiring more than ten days of bedrest usually has had sufficient metabolic insult[1] to precipitate such a "catabolic" phase.

Nilevar (brand of norethandrolone) has been used in patients with varied conditions including hyperthyroidism, poliomyelitis, aplastic anemia, glomerulonephritis, anorexia nervosa and postoperative protein depletion. The patients gained weight and felt better. It was concluded[2] that "the drug certainly caused a reversal of rather recalcitrant or progressive catabolic patterns of disease."

Nilevar is unique among anabolic steroids in that androgenic side action is minimal or absent.

The suggested adult dosage is three to five tablets (30 to 50 mg.) daily. For children 1.5 mg. per kilogram of weight is recommended.

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

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2. Proceedings of a Conference on the Clinical Use of Anabolic Agents, Chicago, Illinois, G. D. Searle & Co., April 9, 1956, pp. 32-35.

SEARLE

Important Announcement of Arteriosclerosis Treatment

GEROT PHARMACEUTIKA, owners of United States Letters Patent #2-776-973 issued January 1957 to Gerhard Gergely of Vienna, Austria, have licensed MEYER AND COMPANY of Detroit, Michigan, to synthesize and market 3, 7-dimethyl-xanthine double salt in the United States of America.

3, 7-dimethyl-xanthine double salt with oleic acid and magnesium, a stable compound marketed in Austria since 1950 under the name "Perskleran" and used in the treatment of ARTERIOSCLEROSIS is being marketed by MEYER AND COMPANY under the trade name of "Athemol."

The product is now available in tablet form.

Literature and clinical samples are available on request.

MEYER AND COMPANY

Pharmaceutical Manufacturers

16361 Mack Ave.

Detroit 24, Michigan

In Memoriam

GEORGE A. CONRAD, M.D., eight-two, Sault Ste. Marie physician, died November 16, 1957, of injuries suffered in a November 9 traffic accident.

Doctor Conrad was born in Buchanan, Michigan, September 26, 1875, and was a 1901 graduate of the University of Michigan Medical School. He started practice in the Copper Country and was a mining company physician for many years. In 1925, he moved to Sault Ste. Marie, where he made his home and practiced surgery.

Doctor Conrad was on the medical staff of War Memorial Hospital. He was a member of all of the lodges of the Masonic Order including the Shrine.

FREDERICK S. DICKSON, M.D., thirty-five, Detroit obstetrician and gynecologist, suffered a cerebral hemorrhage and died November 28, 1957.

Doctor Dickson was a graduate of Bowdoin College and the University of Rochester, New York. He was one of four brothers, all of whom were elected to Phi Beta Kappa for their scholastic excellence. He had been chief resident in obstetrics and gynecology of a St. Louis hospital and as an Air Force captain headed that department at an Air Force base in Japan during the Korean War.

He came to Detroit in 1955 and operated a clinic with his brother, Leon A. Dickson, M.D. He was secretary of the Detroit Medical Society.

ERNEST E. FOLEY, M.D., seventy-one, Alpena surgeon, died November 24, 1957.

Born in Charlottesville, Indiana, Doctor Foley attended Bloomington High School and studied at Indiana University and Dartmouth University, gaining the degree of Bachelor of Arts in 1907. He then won a degree in Pharmacy at Purdue in 1908 and in 1917 received his degree of Doctor of Medicine at Columbia University, New York.

Doctor Foley began his practice in Alpena in 1919 and practiced there for more than thirty years. In 1951 he entered the practice of industrial medicine in Detroit, from which he retired two years ago. He was a member of Sigma Chi, St. Michael's Episcopal Church, Detroit Moslem Shrine and a life member of Alpena's Elks Lodge.

ROBERT B. KENNEDY, M.D., sixty-two, Detroit obstetrician and gynecologist, died in West Palm Beach, Florida, December 17, 1957.

Doctor Kennedy was graduated from the University of Toronto and trained at Detroit's Harper Hospital and Chicago's Lying-In Hospital.

He began his practice in Detroit in 1924, maintaining offices in the David Broderick Tower building until he retired in January, 1954. He was honored six months later when doctors who trained under him sponsored a testimonial dinner at Detroit's Statler Hotel.

(Continued on Page 272)

when are tranquilizers indicated in pediatrics ?

Some doctors have questioned the use of tranquilizers in children. They feel, and rightly so, that these drugs should not be used as palliatives to mask distressing symptoms, while etiological factors go uncorrected. But there are three situations in which even the most conservative physician would not hesitate to use tranquilizers:

1. When the usually well-adjusted child needs a buffer against temporary emotional stress, such as hospitalization.
2. When a child needs relief from an anxiety-reaction that is in turn anxiety-provoking, so as to pave the way for basic therapy.
3. When anxiety underlies or complicates somatic disease, as in asthma.

In such situations, tranquilizers are likely to be more effective and better tolerated than previously accepted therapy, such as barbiturates.

But the question arises: which tranquilizer is suitable for children?

Most of the physicians now using tranquilizers in pediatric practice have found the answer to be ATARAX, confirming the conclusions of repeated clinical studies.

ATARAX is effective in a wide range of pediatric indications.
ATARAX has produced a "striking response" in a wide range of hyperemotive states.* In a study of 126 children, "the calming effect of hydroxyzine (ATARAX) was remarkable" in 90%.* Among the conditions that are improved with ATARAX are tics, nervous vomiting, stuttering, temper tantrums, disciplinary problems, crying spasms, nightmares, incontinence, hyperkinesia, etc.*

ATARAX is well tolerated even by children.
"ATARAX appears to be the safest of the mild tranquilizers. Troublesome side effects have not been reported. . . ."*

ATARAX offers two pediatric dosage forms.
ATARAX Syrup is especially designed for acceptability by medicine-shy youngsters. A small 10 mg. tablet is also available. In either case, you will get a rapid, uncomplicated response. Why not, for the next four weeks, prescribe ATARAX for your hyperemotive pediatric patients. See whether you, too, don't find it eminently suitable.

*Documentation on request

PEACE OF MIND ATARAX
(BRAND OF HYDROXYZINE)

ATARAX
in any hyperemotive state

for childhood behavior disorders
10 mg. tablets—3-6 years, one tablet t.i.d.; over 6 years, two tablets t.i.d. Syrup—3-6 years, one tsp. t.i.d.; over 6 years, two tsp. t.i.d.

for adult tension and anxiety
25 mg. tablets—one tablet q.i.d. Syrup—one tbsp. q.i.d.

for severe emotional disturbances
100 mg. tablets—one tablet t.i.d.

for adult psychiatric and emotional emergencies
Parenteral Solution—25-50 mg. (1-2 cc.) intramuscularly, 3-4 times daily, at 4-hour intervals. Dosage for children under 12 not established.

Supplied: Tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

M. A. Seidel M.D.
Medical Director

Roerig
New York 17, New York
Division, Chas. Pfizer & Co., Inc.

V^{10} protein is a COMPLETE PROTEIN



Complete protein is essential to the maintenance of body cells

Constant daily replacement of protein forming the cells of blood, skin, muscle, nerve, bone, and even teeth, is necessary to maintain health and vigor. In order that this process be maintained, the diet must contain adequate quantities of "complete protein" with all of the essential amino acids for simultaneous ingestion.

The Wisconsin Alumni Research Foundation has licensed the production of such a complete protein in the form of V^{10} Protein Concentrate. V^{10} Protein is composed entirely of grains, yet results of laboratory tests by the Foundation show that it has a protein efficiency value equal to casein, the high quality protein standard commonly used in protein evaluation work.*



Now V^{10} Protein is available in Michigan in V^{10} Protein Bread and V^{10} Protein Graham Crackers. These delicious foods add variety to the daily dietary requirement for protein. V^{10} Protein Bread and Graham Crackers will greatly aid in the planning of meals and will help promote health and vigor for all age groups.

WISCONSIN ALUMNI RESEARCH FOUNDATION

*A complete report on these animal feeding studies is available on request. Address WISCONSIN ALUMNI RESEARCH FOUNDATION, P. O. Box 2217, Madison 1, Wis.

IN MEMORIAM

ROBERT B. KENNEDY, M.D.

(Continued from Page 270)

Doctor Kennedy, a Fellow in the American College of Surgeons, had served as Chief of Obstetrics at Women's Hospital and Chief of Obstetrics and Gynecology at St. John's Mercy Hospital. He also was a staff member at Cottage Hospital.

He was a member of the American College of Obstetricians and Gynecologists and of the Michigan affiliate.

CHARLES F. PEQUENOT, M.D., eighty-one, Detroit physician, died November 28, 1957.

A native of Windsor, Doctor Pequegnot was graduated from Assumption College and received his doctor of medicine degree from the Detroit College of Medicine in 1904. His grandfather was the first president of Assumption College.

Because of his mastery of the French language, he interviewed Marshall Foch, leader of the French armed forces, after World War I on behalf of the Knights of Columbus of Detroit. He was decorated for his charitable works in Detroit by Pope Benedict XV and received the declaration Pro Eccelsia Pontifice.

ROBERT LEE SCHORR, M.D., eight-four, Detroit physician, died December 11, 1957.

A native of Millersburg, Ohio, Doctor Schorr graduated in 1897 from the Detroit College of Medicine. Doctor Schorr was the first industrial doctor for the Fisher Body Division of General Motors Corporation.

He had lived in the Detroit area since 1885 and was a life member of the Palestine Lodge No. 357, F&AM, of the Detroit Consistory and St. Paul's Cathedral.

CARLOS W. SHOTWELL, M.D., seventy-nine, Detroit internist, died December 5, 1957.

Born in Lima, Ohio, Doctor Shotwell attended Oberlin College and graduated from the Detroit College of Medicine in 1903.

Doctor Shotwell, a staff physician at Old Grace Hospital, practiced in Detroit for a half century.

PSYCHOTHERAPIES IN A GENERAL HOSPITAL

(Continued from Page 256)

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help reduce
the pressures
IN your
patients

help reduce
the pressures
ON your
patients



for total management
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Raudixin provides gradual, sustained lowering of blood pressure in hypertensive patients, as well as a mild bradycardia. Hence, the work load of the heart is reduced.

"... often preferred to reserpine in private practice because of the additional activity of the whole root."

Corrin, K. M.: Am. Pract. & Dig. Treatment 8:721 (May) 1957.

Tranquilizing Raudixin helps relax the anxious hypertensive patient so that he is better able to cope with external pressures without being overwhelmed by them. By reducing these anxieties and tensions, Raudixin helps break the mental tension —hypertension cycle.

Dosage: Two 100 mg. tablets once daily; may be adjusted within range of 50 to 300 mg. *Supply:* 50 and 100 mg. tablets. Bottles of 100, 1000 and 5000.

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NEWS MEDICAL

MICHIGAN AUTHORS

Ralph A. Straffon, M.D., Robert W. Buxton, M.D., Ann Arbor, are the authors of an article entitled "Deep Vein Ligation in the Postphlebitic Extremity" published in *Surgery,* and condensed in *American Practitioner and Digest of Treatment,* December, 1957.

Carl V. Weller, M.D., and **Joel Hamburger, M.D.,** Ann Arbor, are the authors of an article entitled "Age Incidence of Malignant Neoplasm," published in *Cancer* and condensed in *American Practitioner and Digest of Treatment,* December, 1957.

A. B. Stearns, M.D., and **George C. Frederickson, M.D.,** Detroit, are the authors of an article entitled "Promethazine Hydrochloride for the Control of Nausea and Vomiting during Spinal Anesthesia," published in the *Illinois Medical Journal,* December, 1957.

A. D. Ruedemann, M.D., Detroit, is the author of an article entitled "Immediate Treatment of Lid Lacerations," presented at the Sixty-First Annual Session of the American Academy of Ophthalmology and Otolaryngology, October, 1956, in Chicago, and published in *Transactions of the American Academy of Ophthalmology and Otolaryngology,* September-October, 1957.

Hugh Reynolds, M.B., B.Ch., and **John R. Caldwell, M.D.,** Detroit, are the authors of an article entitled "Hydralazine Syndrome—Hypersensitivity or Toxicity?" published in the *Journal of the American Medical Association,* December 7, 1957.

William O. Umiker, M.D., Ann Arbor, is the author of an article entitled "Grading of Squamous Cell Carcinoma by Cytologic Smears: A Preliminary Report," published in the *University of Michigan Medical Bulletin,* October, 1957.

Pedro Blaquier, M.D., and **S. W. Hoobler, M.D.,** Ann Arbor, are the authors of an article entitled "A New Blood-Pressure Cuff for Self-Determination of the Blood Pressure," published in the *University of Michigan Medical Bulletin,* October, 1957.

J. T. Ferguson, M.D., Traverse City, is the author of an article entitled "Neuro-Pharmacological Agents in Rehabilitation of Patients with Chronic Mental Illness," published in the *Journal of the American Medical Association,* November 30, 1957.

Martin Urist, M.D., South Haven, is the author of an article entitled "Bilateral Blepharospasm," published in the A.M.A. *Archives of Ophthalmology,* October, 1957. He is also the author of an article entitled "The Practical Significance of the Subjective Angle," published in *American Orthoptic Journal,* December, 1957.

Jack Kevorkian, M.D., Pontiac, is the author of an article entitled "Rapid and Accurate Ophthalmoscopic Determination of Circulatory Arrest," published in the *Journal of the American Medical Association,* August 10, 1957, and digested in *Digest of Ophthalmology and Otolaryngology,* August, 1957.

Maurice Croll, M.D., and **Leo J. Croll, M.D.,** Detroit, are the authors of an article entitled "Surgical Approach to Intraocular Foreign Bodies," published in the *American Journal of Ophthalmology,* December, 1957.

Ignace J. Robarge, M.D., North Miami Beach, Florida, and Lee Carrick, M.D., Detroit, are the authors of an article entitled "The Treatment of Dermatoses of Psychogenic Origin with Bellergal," published in *Antibiotic Medicine and Clinical Therapy,* July, 1957.

Louis A. Schwartz, M.D., Detroit, is the author of an article entitled "Laying the Cornerstone for Living Through Growth, Learning and Doing," presented at the Annual Conference of the American Physical Therapy Association, Detroit, June, 1957, and published in *The Physical Therapy Review,* October, 1957.

* * *

The Board of Governors of Wayne State University College of Medicine, at its December meeting, accepted grants of approximately $152,000 from the United States Public Health Service, National Institutes of Health. Osborne A. Brines, M.D., of the College of Medicine, received $72,968 to continue the cytodiagnostic screening survey in cervical cancer.

The sum of $59,000 went to Calvin L. Stevens, M.D., for research in "Therapeutically Promising Antibiotics for Cancer." Another $20,000 for research was granted to J. E. Lofstrom, M.D.

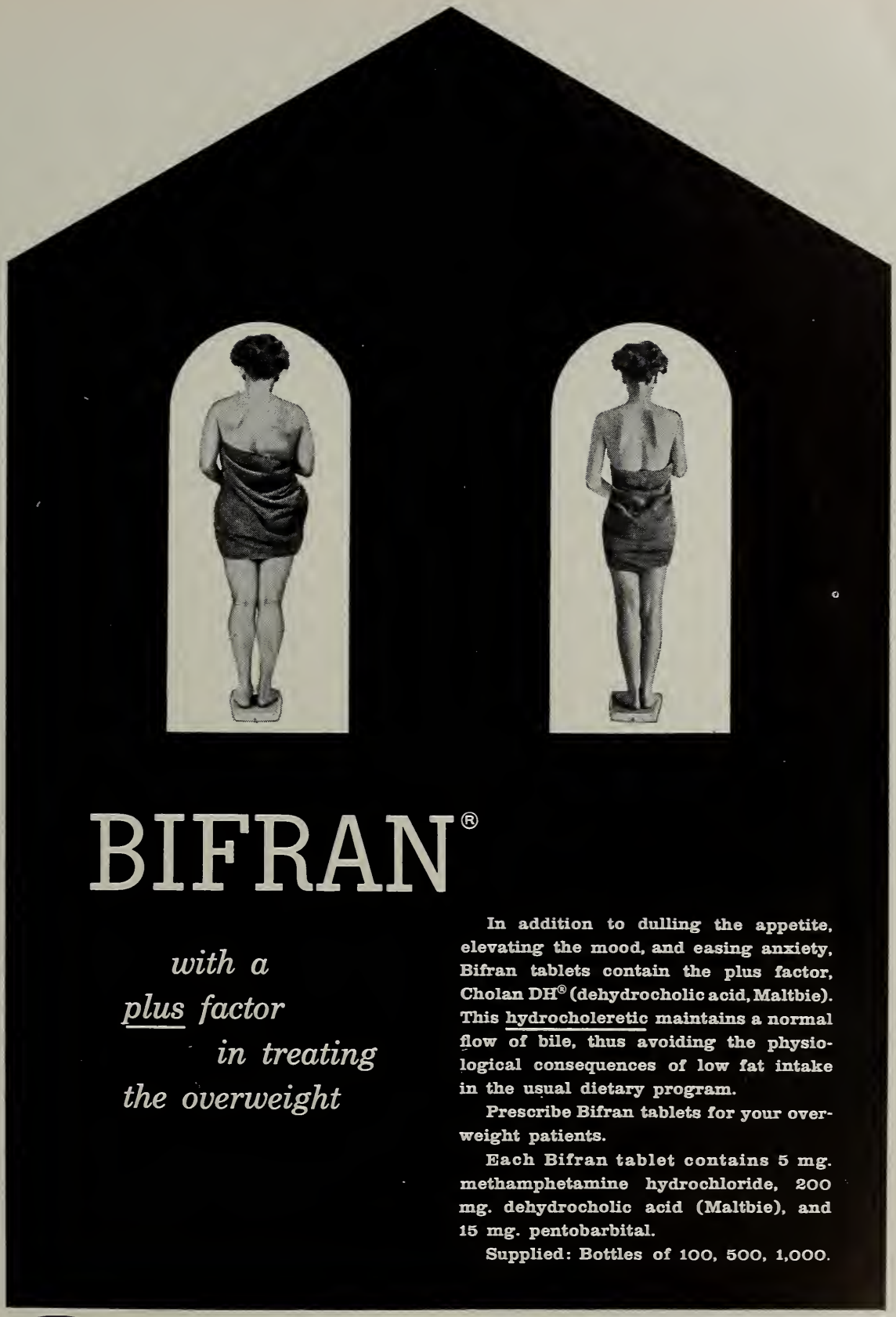
The Michigan Chapter of the Arthritis and Rheumatism Foundation gave $22,500 to Alfred J. Bollet, M.D., and $6,000 to Ernest Gardner, M.D., both of the College of Medicine, to continue arthritis research.

* * *

Dr. William T. Sanger, chancellor of the Medical College of Virginia, in response to a special legislative study committee on higher education, submitted a report, December 17, 1957, recommending that Wayne State University College of Medicine be given facilities to handle 200 entering students yearly instead of the current seventy-five. He said that nationally the average medical school freshman class is ninety-two.

He favored expansion of Wayne's medical college to the present size of that of the University of Michigan, rather than the establishment of a third medical school

(Continued on Page 282)



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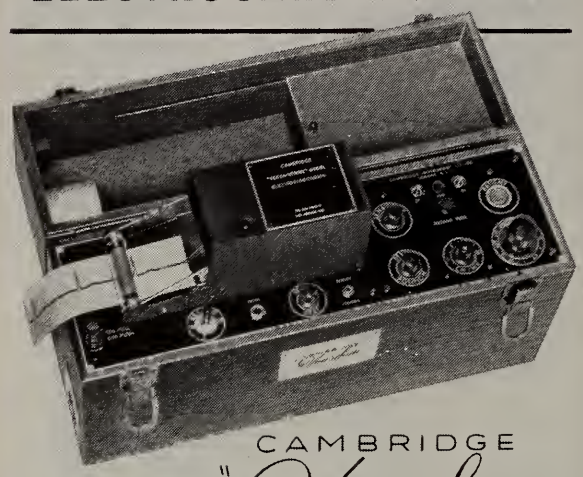
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CAMBRIDGE ELECTROCARDIOGRAPHS

Pioneer Manufacturers of the Electrocardiograph

(Continued from Page 280)

in Michigan. With both schools being maintained at 200 freshmen each year, Michigan would have the equivalent of four average medical schools.

Dr. Sanger pointed out that establishing a third state-supported medical school would cost $25,000,000 to $50,000,000. Wayne's expansion could be achieved at a cost of $385,000 to $900,000 a year for operating costs and equipment, and $4,000,000 for library, laboratory and faculty office buildings.

* * *

The International College of Surgery announced recently in Paris the election of Frederick A. Coller, M.D., of Ann Arbor, as an honorary member of the society. Dr. Coller has been a member of the society for twenty-five years and is one of its five vice presidents. Action toward this honor was started at the October meeting in Mexico City in October, 1957. This honor comes as a personal ballot from the total membership of over 6,000 in fifty countries around the world. We congratulate Dr. Coller. We are all proud of him

* * *

Conference on Light and Vision.—At the University of Michigan, March 19-21, 1958, lighting engineers, architects, designers, industrial hygienists, and school administrators will be given for the first time a new laboratory-tested table of lighting standards. These standards were developed after eight years of research by Associate Professor H. Richard Blackwell of the University of Michigan Vision Laboratory.

* * *

The American College of Chest Physicians, to stimulate interest in postgraduate study of chest diseases and to assist worthy postgraduate students in continuing their study in diseases of the chest including heart and lungs, has established a resident loan fund.

An amount not to exceed $1,000 is available to any one student in any one year, and not more than a total of $3,000 loaned to any one student. Information may be obtained from the chairman, M. Jay Flipse, Miami, Florida, or locally from H. D. Ireland, M.D., Sunshine Hospital, 750 Fuller Ave. N.E., Grand Rapids 3.

* * *

The National Association for the Prevention of Tuberculosis, of the British Commonwealth, will hold a Commonwealth Chest Conference in London, July 1 to 4, 1958. Tuberculosis and other chest diseases are matters of international concern and the conference speakers will include some of the foremost authorities from many parts of the world. Representatives from all countries will be most welcome. For information, write Tavistock Square, London, W.C.I.

* * *

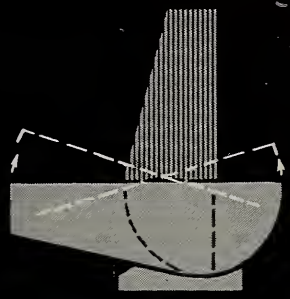
Caribbean Cruise.—The Pan American Association of Ophthalmology, with about 400 physicians and members of their families, are on a two-week study and recreation cruise through the Caribbean, with scientific sessions on shipboard and on shore in several ports on the Islands.

(Continued on Page 284)

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1 On this board you select the bodypart you want to x-ray

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That's all there is to it. No time, KV, or MA adjusting to do. No charts to check, no calculations to make.



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Modest cost
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Call in your Picker representative (he's probably in your local 'phone book) or write: PICKER X-RAY CORPORATION 25 South Broadway, White Plains, N. Y.

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(Continued from Page 282)

The Upper Peninsula Medical Society is planning to hold its annual meeting in Marquette, June 20 and 21, 1958.

* * *

The Department of Postgraduate Medicine at the University of Michigan has announced a series of Postgraduate Courses, each occupying several days:

1. Pulmonary Diseases, March 24-28, 1958
2. Diseases of the Heart, April 14-18, 1958
3. Electrocardiographic Diagnosis, April 21-26, 1958
4. Allergy, April 28-May 2, 1958
5. Clinical Neurology, May 7 and 8, 1958

The Department will be glad to furnish information to anyone interested.

* * *

Leroy E. Burney, M.D., Surgeon General of the United States Public Health Service, told the National Institute of Life Insurance, New York, that in the July-September quarter, 1957, more than 14 million persons suffered accidents that were disabling or that required medical care or both. Eight per cent of these involved motor vehicles, 45 per cent occurred in the homes, 17 per cent were on the job mishaps, and the remainder happened in public or other places. These are exclusive of fatal accidents. He said, "It is fully possible today with existing medical knowledge to prevent this substantial proportion of long-term disabling illnesses. The price of preventive services is only a fraction of the costs of disability and premature death."

* * *

The second annual postgraduate conference by the Chicago Committee on Trauma of the American College of Surgeons will be held in Chicago, April 16 through April 19, 1958, at the John B. Murphy Memorial Auditorium, 40 E. Erie Street. Several out of state speakers will be on the program.

* * *

The consumer price index for medical care in November was 140.3. This category of essential needs maintained its record setting distinction. Medical care index has been going up month by month since 1939. Neither housing, food, apparel nor any of the other main groupings can equal that claim. The latest increase was ascribed by the Bureau of Labor Statistics to hospital rates, counter drugs and prescriptions.

* * *

More than 600 current research projects in the health field are described in the sixth annual edition of An Inventory of Social and Economic Research in Health, published by the Health Information Foundation.

The projects described in the new Inventory deal with such varied topics in the field as health facilities, the quantitative measurement of mental health, health personnel and economic and sociological factors relating to medical care. Information was gathered nationwide from

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THE UNEXCELLED
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independent research groups, universities and government agencies at all levels.

Sponsored by leading companies in the drug, pharmaceutical, chemical and allied industries, the Foundation itself is organized to conduct and finance research in the non-clinical aspects of health. It distributes the Inventory to a limited number of research groups as a catalogue and index of current research and as a means of stimulating new research as well.

The number of projects listed has more than doubled since the first Inventory was published in 1952.

Dr. Odin W. Anderson, the Foundation's research director comments:

"There is also evidence of growth in the quality of research; of more co-operative activity between research agencies; of diminishing duplication of research efforts and in the proper evaluation of what kind of research is needed to help define and resolve problems in the social and economic aspects of medical care."

* * *

Beachhead operations averaged more wounded in relation to division troops engaged than any other type of ground operation in World War II.

This is the conclusion set forth by three writers in the December issue of *Military Medicine*, published by the Association of Military Surgeons of the U. S., Washington, D. C. The authors are Gilbert W. Beebe, Division of Medical Sciences, National Research Council, and Carroll I. Leith, Jr., and Frank A. Reister, both of the Medical Statistics Division, Office of the Army Surgeon General.

Six types of ground operations which had higher than average casualty rates among personnel of U. S. combat divisions in World War II were studied. In addition to beachhead operations, the relative position of the other five types of military operations in which wounded were sustained at a level well above the average of the war were: offensive breakthrough operations, reductions of ports and towns, assaults on fortified lines, river crossings, and enemy counteroffensives.

Forty-two separate World War II operations from all the major theaters of the war were reviewed. About 27 per cent of the total wounded or injured in action sustained by the U. S. Army ground troops in World War II and about 30 per cent of the total sustained by the Marine Corps fell into the six types of ground operations reviewed.

* * *

"Old Doc', First Auto Test Driver," an article by John A. Mirt of Chicago in the *Illinois Medical Journal*, quotes many doctors throughout the country. This is what it says from Michigan: "Dr. Harry S. Kiskadden, Detroit, urged physicians to be able to tell the 'pulse and respiration' of their cars."—*Illinois Medical Journal*, November, 1957.

* * *

Drafted Dentist Wins Officer's Pay. The five judges of the United States Court of Claims about December 1,

Dimetane®
(PARABROMDYLAMINE MALEATE)
TABLETS (4 MG.), ELIXIR (2 MG. PER 5 CC.) AND EXTENTABS® (12 MG.) UNEXCELLED POTENCY, UNSURPASSED THERAPEUTIC INDEX AND RELATIVE SAFETY. MINIMUM DROWSINESS AND OTHER SIDE EFFECTS. A. H. ROBINS CO., INC., RICHMOND, VIRGINIA. ETHICAL PHARMACEUTICALS OF MERIT SINCE 1878
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Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100.

1. Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
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in a unanimous opinion, held that a dentist inducted as a private was entitled to officer's pay. Dr. Herbert L. Nelson, now of Marysville, Washington, was inducted in May, 1953, under the doctor draft law and separated from active service one year later. The army denied him a commission due to his undergraduate connections with Young Communist League and certain other groups. The Court directed The General Accounting Office to determine how much Uncle Sam owes Dr. Nelson, assuming he was entitled to Captain's pay and allowance on the basis of professional status. The Court says: "It was not proper to refuse to issue him a commission and at the same time insist upon keeping him in the armed services and require him to do exactly the same work that he would have done had he been commissioned." The old doctor draft law had a loophole which permitted Dr. Nelson to sue. That loophole has now been closed by legislation.—W.R.M.S., December 9, 1957.

* * *

The Health Information Foundation, on December 5, 1957, released a statement:

"Each year over 200,000 more men than women die in this country. . . . Already there are 7,700,000 widows in our population, and the number is expected to rise sharply in the years ahead."

In the past half-century, the degenerative diseases have replaced communicable illnesses as leading causes of death. The degenerative diseases, as a rule, are more of a threat to men than to women. In 1955, for example, heart disease caused an excess male mortality of 78 per cent; cancer, an excess male mortality of 20 per cent.

There is no simple explanation of why women generally live longer than men. But it is important for medical science to find ways of overcoming the imbalance—and it is important for men as well as women to accept the benefits medical science can bring.

* * *



The Trudeau School of Tuberculosis and Other Pulmonary Diseases will hold its forty-third postgraduate course in chest diseases, June 2 to 20, at Saranac Lake, N. Y. About half of the course is devoted to tuberculosis. The other half is divided between such subjects as silicosis, pulmonary fibrosis, emphysema, fungus infection, sarcoidosis, pneumonias, and intrathoracic tumors. Tuition is $100. A few scholarships are available. Further information may be obtained from the secretary, Trudeau School of Tuberculosis and Other Pulmonary Diseases, Box 500, Saranac Lake, N. Y.

MICHIGAN TUBERCULOSIS ASSOCIATION

* * *

American Board of Obstetrics and Gynecology.—The next scheduled examinations (Part II), oral and clinical

(Continued on Page 288)

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to insure broad-spectrum therapy with minimum allergenicity

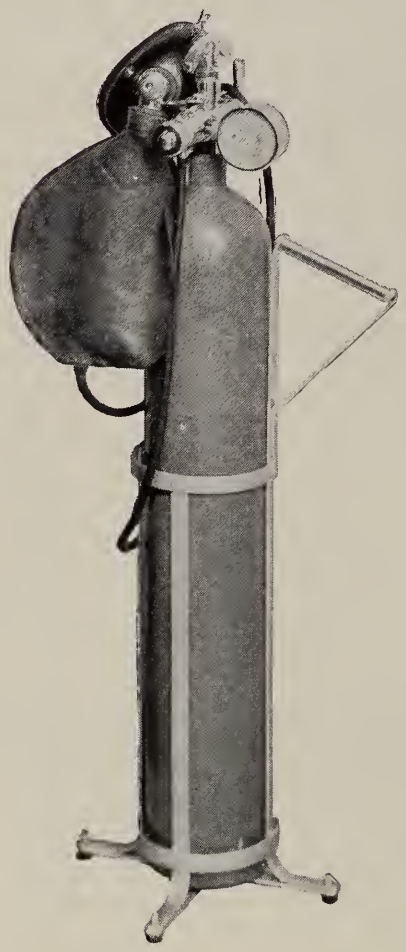
For topical use: in ½ oz. and 1 oz. tubes.

For ophthalmic use: in ⅛ oz. tubes.



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McKesson Emergency Oxygen & Resuscitation Unit



A small portable unit extremely simple to operate, yet efficient for all cases requiring oxygen.

The unit, in addition to supplying oxygen to any patient, can be used as a resuscitator by simply squeezing the bag, which forces oxygen into the lungs.

The flow valve is designed with an adjustable zero position, thus the scale will always indicate the approximate flow rate. The scale is graduated from 0 to 10.

Since the flow valve will open only one turn, it provides a distinct protection to inexperienced personnel should the flow valve be left open when the unit is attached to a full cylinder of Oxygen.

The carrier is designed for carrying either D or E size cylinders and is equipped with rubber feet to prevent the marring of highly polished surfaces.

Weight of carry stand valve and rubber parts—5¼ lbs.

No. 310 Emergency Oxygen unit complete with carrier, flow valve, tank pressure gauge, cylinder valve wrench, exhaling valve and body, plus all rubber parts—$59.50.

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Jackson, Michigan

(Continued from Page 286)

for all candidates will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from May 7 through 17, 1958. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I examinations will be notified of their eligibility for the Part II examinations as soon as possible.

From the office of the Secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

MSMS President George W. Slagle, M.D., Battle Creek, was one of the members of the round-table live television program, sponsored as one of the Wyeth Round Tables on the American Medical Association. The presentation over WFIL-TV, was made December 1, in Philadelphia on the subject "How Much Should Your Doctor Charge?".

* * *

Harold F. Falls, M.D., Ann Arbor and **A. D. Ruedemann, M.D.,** Detroit, are Trustees of the National Medical Foundation for Eye Care. The purposes of the Foundation were outlined in an address by Doctor Falls to the members and friends of the National Medical Foundation for Eye Care, Palmer House, Chicago, October 15. Reprints are available by writing the Foundation at 250 West 57th Street, New York 19, N. Y.

* * *

The need for adequate sanatorium care and management of the tuberculous patient during the initial phase of his disease requires re-emphasis. The extent and variety of tuberculous disease, previous antimicrobial therapy, the desirability of oral or parenteral administration of drugs, and other practical and clinical considerations will undoubtedly influence the choice of chemotherapy for the individual patient.—Abraham Falk, M.D., *Journal-Lancet,* April, 1956.

* * *

F. J. L. Blasingame, M.D., of Wharton, Texas, assumed responsibility for overall administration of the American Medical Association on January 1. 1958. Dr. Blasingame's title is General Manager. Since 1949, he has been a member of the AMA Board of Trustees and in 1955 served as President of the Texas State Medical Association.

George F. Lull, M.D., took over the position of assistant to the president and secretary to the AMA. He will relieve the president of many of the burdens of that office and will act as a special ambassador of the medical profession in cities and towns throughout the country.

* * *

"A Planning Guide for Establishing Medical Practice Units," published by the American Medical Association, currently is available to state and county medical societies for use on a loan basis to individual physicians. Editored by the AMA and published through a Sears-Roebuck Foundation Grant, this in-

(Continued on Page 290)

MICHIGAN BABIES

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DOSAGE: 1 tab. t.i.d.

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Oyster Shell Calcium
B-Complex
Vitamins A-D-C-E
Natural Trace Minerals
Ferrous Sulfate
DOSAGE: 1 tab. t.i.d.

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Therapeutic Iron
Oyster Shell Calcium
Vitamin D
Natural Trace Minerals
DOSAGE: 1 tab. t.i.d.

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*HARDY, J. A.: *Obstet. & Gynec.* (Nov., 1956)

(Continued from Page 288)

formative booklet is limited in number, necessitating the loan feature.

* * *

The Yale Summer School of Alcohol Studies will be held June 29-July 24, 1958, at Yale University, New Haven, Connecticut.

The Midwest Institute of Alcohol Studies will be held on the campus of the University of Wisconsin at Madison, June 23-27, 1958, under the sponsorship of the Michigan Board of Alcoholism, Western Michigan University, The University of Wisconsin and the Wisconsin Council of Alcoholism.

For information on scholarships to the school, write Educational Director, Michigan State Board of Alcoholism, 230 North Grand Avenue, Lansing.

* * *

Russell N. DeJong, M.D., Ann Arbor, has been elected President of the American Board of Psychiatry and Neurology for 1958.

Congratulations, Doctor DeJong!

* * *

Wayne State University College of Medicine and Osborne A. Brines, M.D., received $72,968 from the U. S. Public Health Service to continue the cytodiagnostic screening survey in cervical cancer.

Dr. Alfred J. Bollet and Wayne State College of Medicine received $22,500 from the Michigan Chapter of the Arthritis and Rheumatism Foundation to continue the Arthritis research; in addition $6,000 was allocated to Ernest Gardner, M.D., of Wayne College of Medicine for the same purpose.

Wayne and Arthur J. Vorwald, M.D., of the College of Medicine, received an additional $19,000 grant from the National Science Foundation to support a Summer Institute in Radiation Biology for High School Teachers of Science.

* * *

The medical staff of Mayo Clinic and the faculty of Mayo Foundation for Medical Education and Research invite all members of the Michigan State Medical Society to attend the Clinical Reviews, April 14-15-16, a three-day program of lectures and discussions on problems of current interest in General Practice and Surgery.

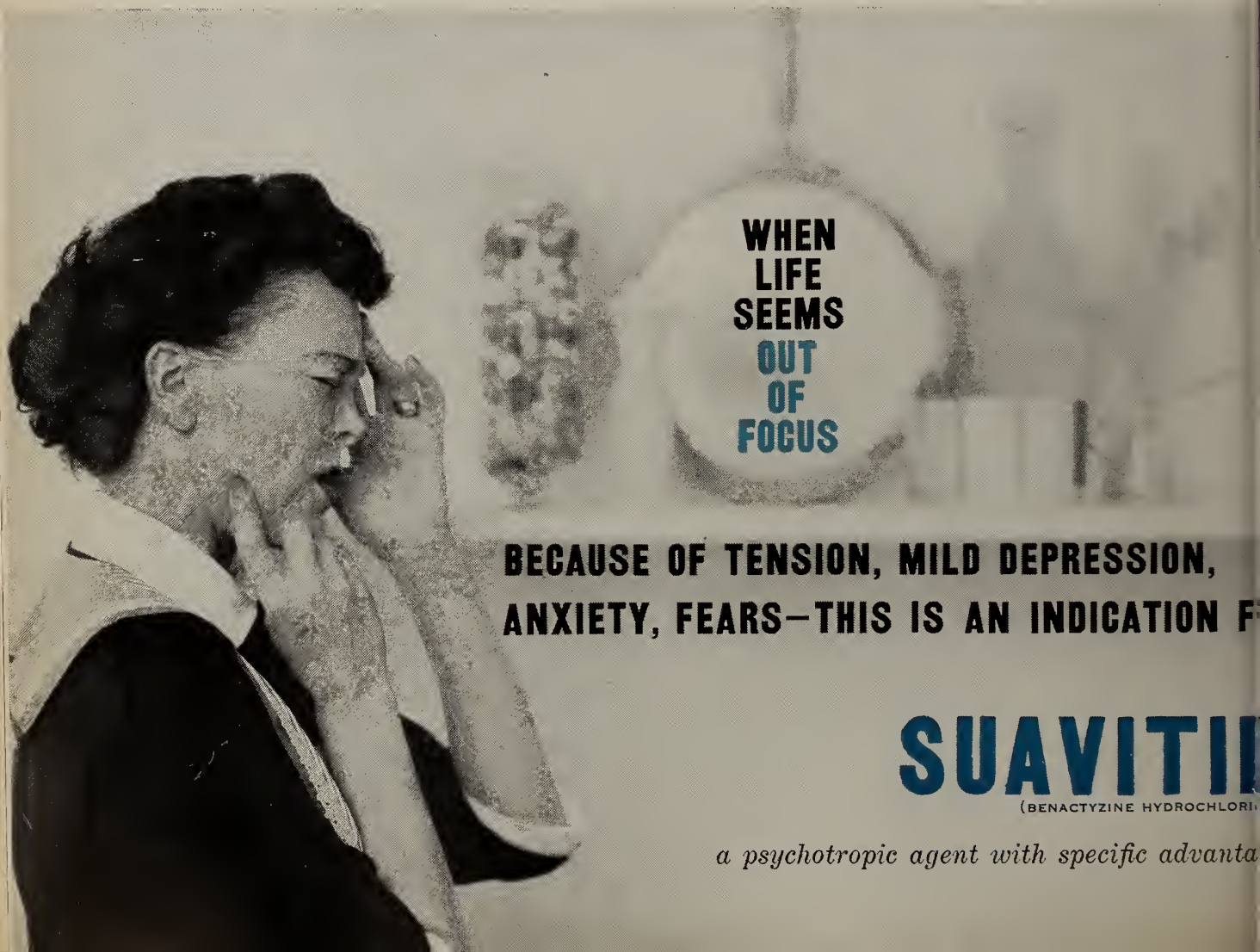
Up to twenty-one hours of Category I, credit may be obtained by AAGP members who attend. No fee. For registration blank, write R. C. Roesler, M.D., Mayo Clinic, Rochester, Minnesota.

* * *

Seventy-four per cent of all patients hospitalized on a typical day last year were in government hospitals (federal, state and local) according to a recent Medical Economics Survey.

* * *

A total of 7,791 freshman medical students enrolled during the school year 1956-57. This compares with 7,686 the previous year and continues the constant enrollment increase.



In the seventy-eight four-year approved medical schools and four years of two-year basic medical science in the United States, a total of 28,852 students were enrolled (1956-57). This represented the eighth consecutive year that a new record in total enrollment was established.

In addition to teaching medical students, the schools in the United States also undertook to teach more than 62,000 other undergraduate students in allied medical fields, (dentistry, nursing, pharmacy, x-ray, medical technology, physical and occupational therapy, medical records, and medical librarianship).

More than $200,000,000 was spent by the medical schools in 1956-57.

* * *

Francis P. Rhoades, M.D., Detroit, has been appointed as American Medical Education Foundation Chairman for Michigan.

One of Doctor Rhoades' first activities, upon assuming this position, was to attend the AMEF State Chairmen's meeting in Chicago on January 25-26, called by the American Medical Association.

* * *

The MSMS Health and Accident Insurance program carrier is the Provident Life and Accident Insurance Company of Chatanooga, Tennessee. The Michigan representative for the MSMS program is Richard M. McDermott, 639 Book Tower, Detroit. (Telephone WO 1-6220). Members wishing information on the MSMS Health and Accident Insurance program, which was tailored to the particular needs of Michigan's Doctors of medicine, are invited to contact Mr. McDermott.

* * *

Robert F. Cooke, M.D., has opened practice in Petoskey. He was assisted in his investigation of various locations by the M.D. Placement Bureau of the Michigan Health Council.

* * *

Doctor and Mrs. Walter Z. Rundles, Flint, presented a $25,000 Christmas gift to Flint's College and Cultural Development.

"We believe the future of our country lies in the education of youth," Dr. Rundles said discussing the broad scope and pioneering approach of Flint's Cultural project in the field of higher education.

Doctor Rundles served as president of the Genesee County Medical Society in 1947. He is a member of the Board of Directors of Michigan Medical Service (Blue Shield).

* * *

Paul L. Van Riper, M.D., Michigan's Foremost Family Physician of 1957, was honored by his own County Medical Society on December 17. The Marquette-Alger County Medical Society officers, members and their wives held a celebratory dinner at the Mather Inn in Ishpeming in honor of Doctor Van Riper. Speaker of the evening was Supreme Court Justice John Voelker.

* * *

William A. Hyland, M.D., Grand Rapids, was re-elected as Chairman of the Michigan delegation to the

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AMA House of Delegates by the Delegates assembled at Philadelphia, December 3, for the AMA Clinical Session.

* * *

Homer D. Strong, Director of Alumni Affairs at Wayne State University, has been appointed program director of the University's McGregor Memorial Conference Center. In accepting the appointment from Wayne's President Clarence B. Hilberry, Mr. Strong stated "The Center will be available for all kinds of national, regional, state and local meetings and conferences.

Congratulations Mr. Strong!

* * *

An Idea for Your Physician Customers—Supplying Identification Cards—You are a doctor and are summoned to treat a stranger who has fallen ill on the street. You don't know how he'll react to penicillin. You don't know whether he is diabetic. Maybe his own physician lives right around the corner—but you don't know that, either. In the face of all such imponderables, you still have to give him medical attention.

There's a way out of this quandary: medical identification cards for everybody. And more and more medical men are providing such cards for their patients. In New Orleans, for instance, three M.D. partners are now busily distributing wallet-size cards that cram a lot of useful medical information into a small amount of space.

The three doctors—J. T. Nix, Matthew Albert, and Don L. Wendt—designed the card themselves. It has their names and phone numbers printed on it, following the statement, "My personal physicians are . . ."

Above this printed statement, the patient fills in his name, address, and phone number, and the name of his nearest relative. Below he uses check-marks to indicate whether he is diabetic or epileptic; whether he is allergic to penicillin or antitoxin; and whether he has taken cortisone.—From *Medical Economics,* October, 1957.

* * *

The Genesee County Medical Society announces the 13th Annual Cancer Day program to be held Wednesday, April 9, 1958, in the Merliss Brown Auditorium, Hurley Hospital, Flint Michigan. The program will begin at 9:30 A.M.

"The Use of Angiography in the Diagnosis of Malignancy"
Benjamin Felson, M.D., Professor and Director, Department of Radiology, University of Cincinnati.

"Cancer of the Head and Neck"
Edgar L. Frazell, M.D., Chief, Head and Neck Service, Memorial Center, New York.

"Radical Pelvic Surgery for Lower Abdominal Cancer"
Eugene M. Bricker, M.D., Associate Professor, Clinical Surgery, Washington University, St. Louis, Mo.

"The Pathology of Gastrointestinal Cancer"
Robert C. Horn, Jr., M.D., Director, Department of Pathology, Henry Ford Hospital, Detroit, Michigan.

"Primary Cancer of the Lymph Nodes"
Alfred Gellhorn, M.D., Associate Attending Physician, Presbyterian Hospital, New York, New York.

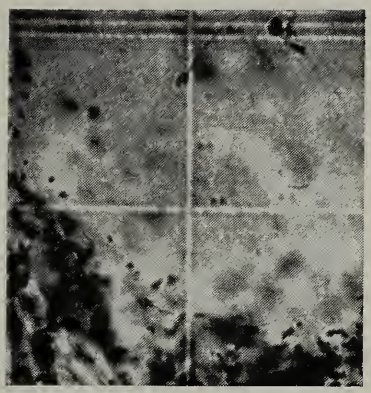
"Cancer of the Upper Gastrointestinal Tract"
I. S. Ravdin, M.D., Professor and Director, University of Pennsylvania, Philadelphia, Pennsylvania.

(Continued on Page 294)

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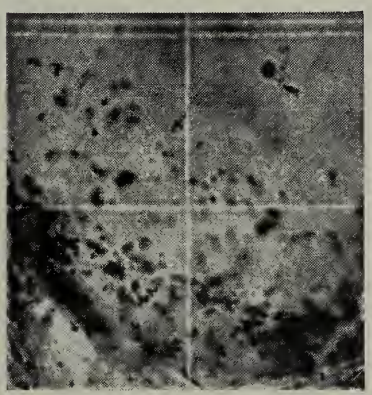
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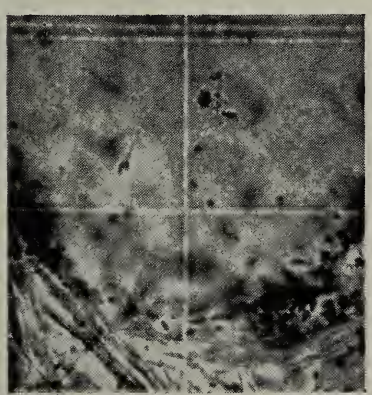
*Goldstein, L. Z.: Obst. & Gynec. *10*:133 (Aug.) 1957.



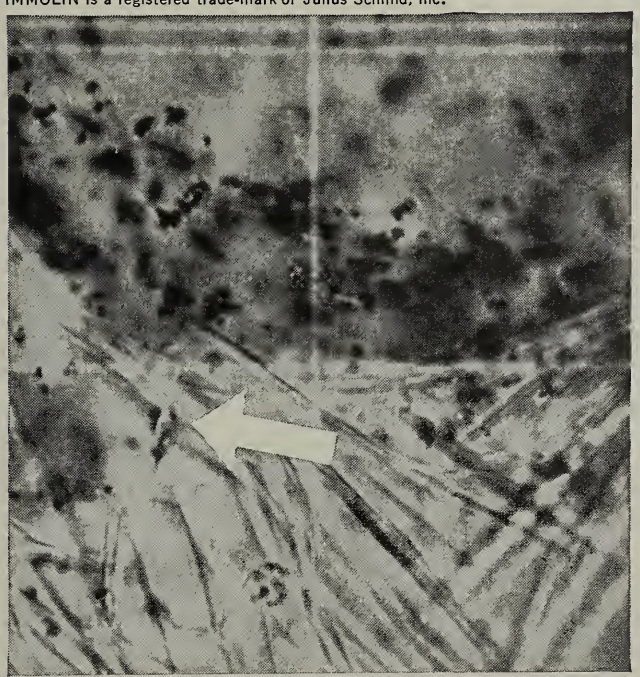
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(Continued from Page 292)

The American Board of Obstetrics and Gynecology announces that the next scheduled examinations (Part II), oral and clinical for all candidates will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from May 7 through 17, 1958. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I examinations will be notified of their eligibility for the Part II examinations as soon as possible.

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November 24—Responsibility of Alcoholism—(Film)
December 1—Search for T.B.—(Film)
December 8—Guard Your Heart—(Film)
December 15—Mental Health—(Film—"We, The Mentally Ill")
December 22—Health Careers—(Films—"Medical Associates" and Health Careers")
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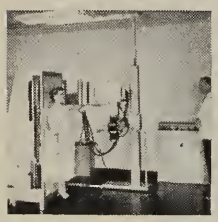
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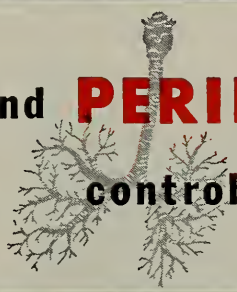
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Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

BOOKS RECEIVED

1958 EDITION PHYSICIAN'S FEDERAL INCOME TAX GUIDE. By Hugh J. Campbell and James B. Liberman. Edited by Henry D. Shereff. Great Neck, N. Y.: Channel Press, Inc. Price $2.50.

HOSPITAL ACCREDITATION REFERENCES. American Hospital Association, Chicago, Illinois. Price $3.25.

THE FORD FOUNDATION ANNUAL REPORT, October 1, 1956 to September 30, 1957. Founded in 1936 by Henry Ford and Edsel Ford.

A BOOK OF CONTEMPLATION. By Dagobert D. Runes. 149 pages. New York: Philosophical Library, 1957.

This small well-bound, well-printed, pocket size book is an amazing production. Short thoughts, ideas, philosophy expressed in one line or two pages are classified in alphabetical order from A to Z. Some of the most well-thought-out philosophy is expressed in a few words. Samples are: "Justice is a poor substitute for Compassion"; "Gifts. He who gives too much belittles the recipient"; "Live as you want to be remembered."

The author must have spent years writing down every thought that came into his mind and well expressing it. For instance, Serenity "is as often the result of indifference as it is the sequel to philosophy"; "Jesus never stopped in Georgia, but Lucifer did." The author is a doctor of philosophy and has published a long list of books.

AIDS TO MATERIA MEDICA AND THERAPEUTICS. By J. W. Hadgraft, F.P.S., F.R.I.C., Chief Pharmacist, Royal Free Hospital Group, Lecturer in Pharmacy, Royal Free Hospital School of Medicine. Fifth edition. London: Bailliere, Tindall and Cox (7 and 8, Henrietta Street, Covent Garden, W.C. 2), 1957. Price $3.25.

This is a small pocket sized book, published in England and distributed in the United States by Williams and Wilkins Company. This is the fifth edition. The major part of the book is devoted to the materia medica of official subjects and quite extensive, occupying about 175 pages. The majority of the medicaments in general use are listed. There is also a list of the British pharmacopoeia preparations and a classification of drugs. Another very handy chapter is devoted to dangerous drugs and poisons.

ATOMIC ENERGY IN MEDICINE. By K. E. Halnan. New York: Philosophical Library, 1957. Price $6.00.

This book is an attempt to familiarize the reader with the very latest information regarding the use of atomic reaction in medicine. A chapter is devoted to the

(Continued on Page 298)



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*REFERENCE: J.A.M.A. 163: 359, 1957 (February 2)

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1. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.
2. Bleiberg, J.: J. M. Soc. New Jersey *53*:37, 1956.
3. Abrams, B. P. and Shaw, C.: Clin. Med. *3*:839, 1956.
4. Welsh, A. L., and Ede, M.: Ohio State M. J. *50*:837, 1954.
5. Bleiberg, J.: Am. Practitioner *8*:1404, 1957.

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(Continued from Page 296)

understanding of atomic physics and the nuclear reactor. The use of radioactive isotopes is given in fairly extensive discussions. Radioactive phosphorus has been used in blood diseases for a considerable length of time. With our modern knowledge of radioactivity and what happens when the various drugs or chemicals are rendered radioactive, we are beginning to understand the reasons. There is a discussion in the book on radio therapy in cancer, also the use of radio active iodine as a searcher in thyroid disease, helping with the diagnoses and with the delineation of conditions within the gland itself. The book is challenging reading and has a chapter, "A Glimpse into the Future."

THE GLAUCOMAS. By H. Saul Sugar, M.D., F.A.C.S., Director of Glaucoma Clinic, Receiving Hospital, Detroit; Assistant Professor in Ophthalmology Wayne University Medical School, Detroit; Ophthalmologist in Charge of Eye Section, Sinai Hospital of Detroit; Consultant Ophthalmologist, Oakwood Hospital, Dearborn. Second Edition. New York: Hoeber-Harper, 1957. Price $13.50.

This is the second edition of a most complete and comprehensive book on glaucoma by a Michigan author. Each chapter is followed by a full reference list, making further study easier and challenging. Several chapters are devoted to intraocular tension measurements and the setting of standards.

The chapters on surgery are unusually clear and complete with good descriptions and illustrations. The fields, their measurement and interpretation are especially well done.

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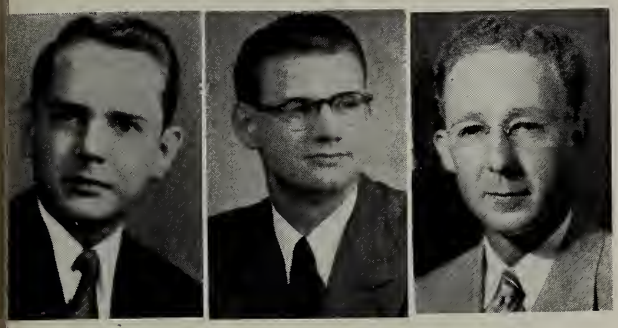
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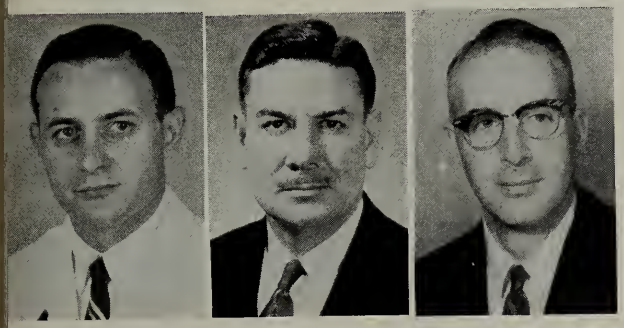
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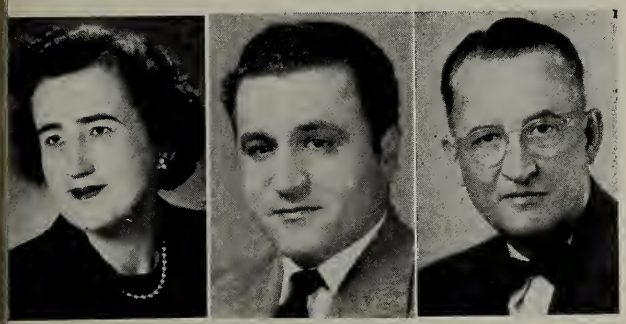
Contributors to This Issue



R. E. Anderson, M.D. R. J. Bareis, M.D. T. I. Boileau, M.D.



W. M. Burns, M.D. K. D. Davis, M.D. W. R. Eyler, M.D.



Adelaide M. Johnson, M.D. A. S. Johnson, M.D. G. P. Larrick



O. T. Mallery, Jr., M.D. J. D. Porterfield, M.D. J. L. Wilson, M.D.

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Assistant Editor
L. J. BAILEY, M.D.
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C. I. Owen, M.D., Detroit.....1959

Alternates

Wm. Bromme, M.D., Detroit.....1958
J. R. Rodger, M.D., Bellaire.....1958
G. W. Slagle, M.D., Battle Creek.....1958
W. W. Babcock, M.D., Detroit.....1959
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SEARLE *announces...*

a superior psychochemical
for the management of both
minor and major
emotional disturbances



Dartal T.M.

dihydrochloride — brand of thiopropazate dihydrochloride

- more effective than most potent tranquilizers
- as well tolerated as the milder agents
- consistent in effects as few tranquilizers are

Dartal is a unique development of Searle Research, proved under everyday conditions of office practice

It is a single chemical substance, thoroughly tested and found particularly suited in the management of a wide range of conditions including psychotic, psychoneurotic and psychosomatic disturbances.

Dartal is useful whenever the physician wants to ameliorate psychic agitation, whether it is basic or secondary to a systemic condition.

In extensive clinical trial Dartal caused no dangerous toxic reactions. Drowsiness and dizziness were the principal side effects reported by non-psychotic patients, but in almost all instances these were mild and caused no problem.

Specifically, the usefulness of Dartal has been established in psychoneuroses with emotional hyperactivity, in diseases with strong psychic overtones such as ulcerative colitis, peptic ulcer and in certain frank and senile psychoses.

Usual Dosage • In psychoneuroses with anxiety and tension states *one 5 mg. tablet t.i.d.*

• In psychotic conditions *one 10 mg. tablet t.i.d.*

You and Your Business

POST-AMA HAWAIIAN TOUR

The Illinois State Medical Society is sponsoring a combined educational and pleasure tour of the Hawaiian Islands in connection with the Annual Meeting of the American Medical Association to be held in San Francisco in June. Members of the ISMS, their friends, and other physicians and their families are invited to join the group leaving San Francisco by air the night of June 25 and arriving in Honolulu the next morning. Quarters will be at the Royal Hawaiian Hotel. A week of pleasure and sight seeing will include a drive to the punch bowl crater, the national cemetery, a trip to the summit of Mt. Tantalus, a tour of Pearl Harbour and Battleship Row, a visit to Hickam Field, a luau or native feast at the Queen's Surf, also a tour of the other Hawaiian Islands. There will be plenty of time for the white sands of Waikiki Beach.

There will be a Hawaiian Summer Medical Conference in Honolulu, July 1-3. The tour will leave Honolulu for home, July 5, option of flying or by steamship Lurline, which takes five days. All this can be done for as little as $538. For information, address Mr. W. W. Moloney, Professional Building, "Old Orchard," Skokie, Illinois.

COMPREHENSIVE STUDY OF HEALTH INSURANCE

The University of Michigan is to undertake the type of study concerning health insurance the Michigan State Medical Society Council suggested two years ago.

Plans for the most comprehensive study of hospital and medical economics ever made in Michigan have been announced by the Kellogg Foundation, Battle Creek, The University of Michigan, and the Governor's Study Commission on Prepaid Hospital and Medical Care Programs.

The foundation has approved a two-year grant of $324,760 for the project, which is scheduled to start in March. Regents of the University authorized application for the funds.

The University of Michigan study stems directly from a request made by Circuit Court Judge E. Bowles, chairman of the Governor's Study Commission, to President Harlan Hatcher in June, 1957. It will be directed by Associate Prof. Walter J. McNerney, head of the Bureau of Hospital Administration in the U-M School of Business Administration.

McNerney will be advised and assisted in his work by an inter-disciplinary group of technical consultants and an inter-disciplinary policy committee, both comprised of U-M faculty members. The study will:

1. Survey hospitals, allied institutions, and agents in terms of services offered, general program, effectiveness of organization, and cost elements;
2. Examine hospital and medical prepayment and insurance plans with specific reference to internal operation, costs, benefits, and contract limitations;
3. Study the relationships between contract benefits, availability of services, and use of benefits and services by patients;
4. Examine the effectiveness of various proposals to control hospital and medical costs; and
5. Survey a sample of the population to determine its health experience, charges incurred, amount of insurance coverage, and current disability.

The following associations have pledged their full co-operation to the U-M in the study: the Michigan State Medical Society, Michigan Hospital Association, Michigan Association of Osteopathic Physicians and Surgeons, Michigan Osteopathic Hospital Association, Michigan Chiropodists Association, Michigan Hospital Service and Michigan Medical Service (Blue Cross-Blue Shield).

Other groups, including labor and farm organizations and representatives of management, have been fully acquainted with the proposal and expressed great interest in it.

Discussing the significance of the study, Professor McNerney said:

"The financing of medical and hospital care is at an important crossroads in Michigan. Consumer groups are pressing for better coverage and insurance. Prepayment agencies are trying to provide this without doing undue violence to the hospital and medical practices of the voluntary system.

"Some consumers are militantly in favor of comprehensive coverage from the first dollar up. Others are equally in favor of the employment of devices such as deductibles and co-insurance. Some carriers are willing simply to trade dollars, others are more concerned with the effect of coverage on legitimate use of services and benefits.

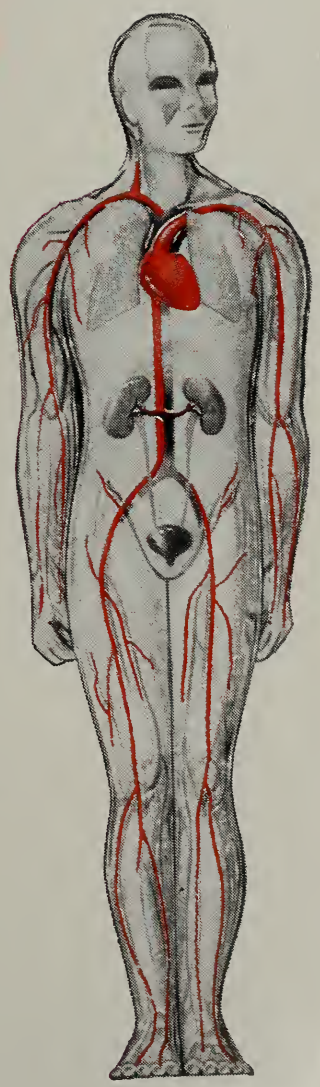
"At present, little organized data exists which pertains to such questions as what section of the medical base is sufficiently organized to insure, what is the impact of various prototype coverages on use, and so forth.

"The few data that are available are either too sparse, not specific enough to Michigan's problems, or not well enough organized.

(Continued on Page 314)

as simple
as 1-2-3
in

HYPERTENSION



1 INITIATE 'DIURIL' THERAPY

'DIURIL' is given in a dosage range of from 250 mg. twice a day to 500 mg. three times a day.

2 ADJUST DOSAGE OF OTHER AGENTS

The dosage of other antihypertensive medication (reserpine, hydralazine, etc.) is adjusted as indicated by patient response. If the patient is established on a ganglionic blocking agent (e.g., 'INVERSINE') this should be continued, but the total daily dose should be *immediately* reduced by 25 to 50 per cent. This will reduce the serious side effects often observed with ganglionic blockade.

3 ADJUST DOSAGE OF ALL MEDICATION

The patient must be frequently observed and careful adjustment of all agents should be made to determine optimal maintenance dosage.

BENEFITS:

- improves and simplifies the management of hypertension
- markedly enhances the effects of antihypertensive agents
- reduces dosage requirements for other antihypertensive agents—often below the level of distressing side effects
- smooths out blood pressure fluctuations

INDICATIONS: management of hypertension

Smooth, more trouble-free management of hypertension with 'DIURIL'

COMPREHENSIVE STUDY OF HEALTH INSURANCE

(Continued from Page 310)

"Without a systematic study, both insurance and prepayment plans and health institutions will be forced to act without a clear-cut notion of the consequences, which is often expensive and which often creates poor public relations.

"Michigan's publics currently are neither in the mood for further expenses nor adjustments here and there based primarily on attrition. Factual data such as those which are the object of this overall study must be uncovered so that the agencies and institutions involved can take a stand which will be defensible and sufficiently right to meet needs for a sustained period of time."

The University will report its findings and "constructive interpretations" to the public. Upon completion of the project by its staff, the University's report will be submitted to the public through a U-M Policy Committee and President Hatcher's Office. The University hopes that the material developed will be helpful to the Study Commission in making its own recommendations to the Governor.

Dean Russell A. Stevenson of the School of Business Administration will be chairman of the University's Policy Committee for the project. Members will include Marvin L. Niehuss, vice president and dean of faculties; Dr. Albert C. Furstenberg, dean of the Medical School; Henry F. Vaughan, dean of the School of Public Health; Dr. Albert C. Kerlikowske, director of University Hospital; Rensis Likert, director of the Institute for Social Research; and McNerney.

Serving as technical consultants to the project from the U-M will be: Angus Campbell, director, Survey Research Center; Wilbur J. Cohen, professor of public welfare administration; Carl H. Fischer, professor of insurance and actuarial mathematics; William Haber, professor of economics; Felix Moore, chairman of the Department of Public Health Statistics; Leo A. Schmidt, professor of accounting; H. Ashley Weeks, research associate, program in hospital administration; John J. Zugich, assistant director, University Hospital; and Dr. John M. Weller, associate professor of internal medicine and research associate, Institute of Industrial Health.

Additional technical consultants, outside the University, will be appointed at a later date. Since his appointment as director of the study in July, 1957, Professor McNerney has contacted key representatives of health agencies, insurance and prepayment organizations, labor and management, at both the state and national levels.

He has advised them about the project and solicited their ideas on content of the study. Without exception, he reports, these representatives have been "interested and co-operative" in the project.

The total report is expected to be available two years after the start of the study in March. Interim reports will be made as material becomes available, possibly at the end of nine, twelve, and fifteen-month periods.

ONE STEP AHEAD OF BLUE SHIELD?

Someone has said that our profession must always be one step ahead of Blue Shield. This is roughly equivalent to saying that the horse should be in front of the cart. The main point is that we doctors—for our own sake as well as for the good of our patients—must always lead and guide this prodigious child of ours, Blue Shield — not vice versa.

Fifteen years is not a long period in the brief span of the average man's adult life. Yet, fifteen years ago Blue Shield was little more than a gleam in the eyes of a few groups of doctors in various parts of the U.S.A. Today Blue Shield is a nationwide association of medically-approved nonprofit prepayment plans that are now paying aggregate benefits at a rate of more than half a billion dollars per year for covered services rendered by physicians.

These seventy-odd locally-sponsored and locally controlled plans are engaged in an endless effort to help our profession provide an ever greater degree of medical care security to more than 40 million Blue Shield subscriber-members.

If Blue Shield has a big job to do, we doctors have a bigger one, for Blue Shield is "our baby"—to nurture and direct. We cannot escape the ultimate responsibility for what Blue Shield is, and for what it shall become. Nor would any of us want to deny our profession the credit for having built this mechanism that serves as a bridge of mutual benefit between doctors and patients.

We doctors need Blue Shield—and Blue Shield needs the guidance that only our profession can give it, if Blue Shield is to do the job for which we created it.

OPINION POLL PUBLICITY

The best defense is good offense. And a society that plans positive programs in keeping with the times is one up on the critics who flay medicine for its negative attitude. That's what Michigan State Medical Society did this summer when it put its collective stethoscope on the public pulse and found out just what changes people wanted in their insurance coverage. The opinion poll taken, Michigan's house of delegates met and promptly brought its state Blue Shield program up-to-date.

The society went all out to let the public know exactly what it was doing. Michigan citizens

(Continued on Page 320)



in any case
it calls for

Sigmagen®

corticoid-salicylate compound

tablets

Composition

METICORTEN® (prednisone)	0.75 mg.
Acetylsalicylic acid	325 mg.
Aluminum hydroxide	75 mg.
Ascorbic acid	20 mg.

Packaging: SIGMAGEN Tablets, bottles of 100 and 1000.

References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

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te conditions: Two or three
ets four times daily. After
red response is obtained,
lually reduce daily dosage
then discontinue.

acute or chronic conditions:
ally as above. When satisfactory
trol is obtained, gradually reduce
daily dosage to minimum
ctive maintenance level. For best
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tains prednisone, the
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n this steroid apply also
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ULTRASOUND,

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BURDICK UT-1

ULTRASONIC UNIT

Clinical reports, both here and abroad, have been in agreement on the value of ultrasound in the following conditions:

Traumatic Injuries • Osteoarthritis • Periarthritis
Fibrositis • Painful Neuroma • Rheumatoid Arthritis
Bursitis • Radiculitis • Scars

A compilation of detailed clinical reports and ultrasound technics is available upon request from the Burdick Corporation.

The Burdick UT-1 Ultrasonic therapy unit is a tested result of pioneering in this field. It features a coupling signal that warns when contact is inadequate for effective treatment. The right-angled applicator and flexible cable add ease to operation. Burdick also has a smaller, portable machine — the UT-4. We will be happy to demonstrate both machines to you at your convenience.

Burdick®

The UT-1 and UT-4 are sold through 296 qualified medical supply houses throughout the United States. Over 1,500 Burdick sales representatives are backed by complete service facilities for all Burdick equipment.

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OPINION POLL PUBLICITY

(Continued from Page 314)

were told—in a veritable barrage of publicity—that the doctors were consulting them on their medical insurance needs. *A four month publicity schedule was planned in advance, building gradually to a climax when study results were released in September.*

No medium was overlooked. Fifteen and thirty-minute shows were presented on *radio* and five-minute tapes were sent to sixty-seven stations. Four thirty-second spot announcements were mailed out to sixty-three stations along with a letter from the survey's co-sponsor, the Michigan Health Council.

To *television* stations went two cartoon slides, and a newscast insertion for two thirty-second spot announcements. One station carried a thirty-minute interview on the opinion survey.

State *newspapers* were hit with thirteen different news releases during the campaign. The Lansing State Journal ran two feature articles and a copy of the questionnaire while the Detroit Times printed the questionnaire, an editorial and several articles on the survey.

Bulletin Board announcements, letters to organizations, and telegrams to hospital chiefs of staffs, urging participating in the survey, filled up what blank spaces were left in the all-encompassing campaign. Even the society's booth at the state fair gave away information sheets on the survey.

By the time results were released—backed up by the action of the house of delegates—(see Journal of the AMA, January 4, 1958) everybody in Michigan was well aware that their doctors are not only concerned about the cost of medical care, but doing something about it.—AMA *Public Relations. Bulletin,* January, 1958.

MEDICAL EDUCATION WEEK

The week of April 20-26, 1958, has been designated as Medical Education Week.

EQUIPMENT LOAN SERVICE

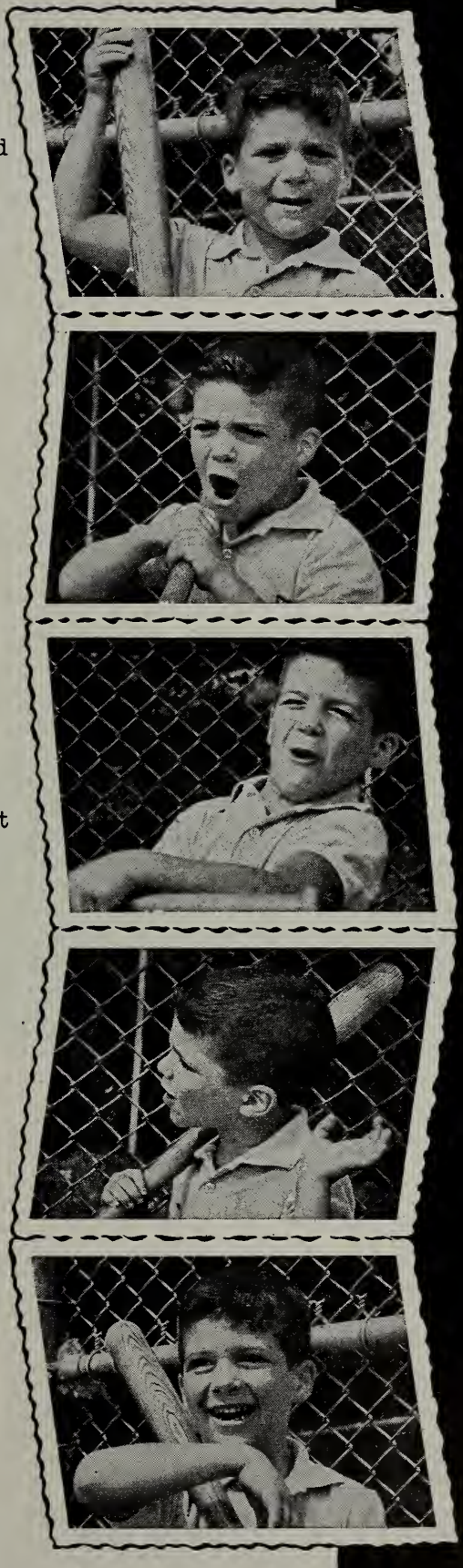
When a Broome County (N.Y.) minister appealed to the local medical society for sickroom equipment for a parishioner, the society followed it up by *compiling a complete list of items available through local charitable and service organizations.* The list contains details on whom to contact, loan restrictions, and how to transport the equipment. A very good suggestion—worth following.

DOCTORS NEED REMINDERS

The American Medical Association, through its Public Relations Department, has prepared and made available upon request two polio reminder cards: *A* to have the shots, and *B* time for the third shot. Please indicate the number of each needed. Every unvaccinated person under forty should have a reminder card from his doctor.

Say you saw it in the Journal of the Michigan State Medical Society

MY DAD— HE HURT HIS BACK REAL BAD



"It happened at work while he was putting oil in something"

"He told Mom his shoulder felt like it was on fire"

"He couldn't swing a bat without hurting"

"But Doctor gave him some nice pills--and the pain went away fast"

"Dad said we'd play ball again tomorrow when he comes home"

AND THE PAIN WENT AWAY FAST

FOR PAIN

Percodan®

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC) **TABLETS**

ACTS FASTER...
usually within 5-15 minutes

LASTS LONGER...
usually for 6 hours or more

MORE THOROUGH RELIEF...
permits uninterrupted sleep through the night

RARELY CONSTIPATES...
excellent for chronic or bedridden patients

and now... NEW

Percodan®-Demi

VERSATILE

New "demi" strength permits dosage flexibility to meet each patient's specific needs. PERCODAN-DEMI provides the PERCODAN formula with one-half the amount of salts of dihydrohydroxycodeinone and homatropine.

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Available through all pharmacies.

Each PERCODAN* Tablet contains 4.50 mg. dihydrohydroxycodeinone hydrochloride, 0.38 mg. dihydrohydroxycodeinone terephthalate, 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. phenacetin, and 32 mg. caffeine.

Literature? Write

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Heart Beats

ABSTRACTS OF PAPERS DUE JUNE 13 FOR 1958 AHA SCIENTIFIC SESSIONS

The 1958 Scientific Sessions of the American Heart Association are scheduled to be held October 24-26 at the Civic Center, San Francisco. Applications are now obtainable for the presentation of papers or for exhibit space by writing to F. J. Lewy, M.D., Assistant Medical Director, American Heart Association, 44 East 23rd Street, New York 10, N. Y.

Papers intended for presentation must be based on original investigation in, or related to, the cardiovascular field. Abstracts of such papers, under no circumstances to exceed 300 words, are due before June 13, 1958. They must be submitted in triplicate on forms which will be supplied to applicants.

ARTERIOSCLEROSIS SOCIETY TO MEET WITH HEART ASSOCIATION

The American Society for the Study of Arteriosclerosis will hold its 1958 Annual Meeting simultaneously with the 31st Annual Scientific Sessions of the American Heart Association in San Francisco, October 24-26. Several joint programs are being planned at that time.

PUBLICATIONS AND TEACHING AIDS AVAILABLE FOR PHYSICIANS

A revised, comprehensive catalog, Publications and Teaching Aids for Physicians, is available free of charge from the national office of the American Heart Association or from local Heart Associations. Listed among the catalog's teaching aids are pamphlets, monographs, films, slides, recordings and other audiovisual materials. It points out that the Heart Association's educational programs include scientific sessions, postgraduate courses, teaching days and annual symposia. Brief descriptions of each item and prices are also included.

BOOK ON RHEUMATIC FEVER IS COMPLETELY REVISED

A completely revised edition of the book, Epidemiology of Rheumatic Fever, by Dr. John R. Paul, Professor of Preventive Medicine at Yale University School of Medicine, has been prepared with the assistance of an ad hoc Advisory Committee of the American Heart Association's Council on Rheumatic Fever and Congenital Heart Disease. Rewritten in the light of recent knowledge on the spread and causes of rheumatic fever, the 187-page volume contains information of particular value to pediatricians, health officers and rheumatic fever committees. It is available through the Michigan Heart Association.

WORK-SIMPLIFICATION CLASSES NOW SCHEDULED THROUGH JUNE

Heart of the Home Work-Simplification classes for women with heart disease have been scheduled throughout the State for the next six months. The classes, which are sponsored by the Michigan Heart Association in co-operation with Michigan State and Wayne State Universities, will, at the conclusion of this year's classes, have covered every county in Michigan at least once.

Physicians are urged to make referrals to these classes.

Any woman may register for the classes, but women with cardiac conditions will be given preference. The schedule through June is a follows:

GREATER DETROIT AREA CLASSES
(Register with the Michigan Heart Association)

DATE	*TIME*	*PLACE*
March 4, 11, 18, 25	7 to 9 P.M.	Wayne State University
March 5, 12, 19, 26	9:30 to 11:30 A.M.	Grosse Pointe Community Ser. 43 Grosse Pointe Blvd.
March 7, 14, 21, 28	9:30 to 11:30 A.M.	Lipke Center, 19320 Van Dyke
April 1, 15, 22, 29	9:30 to 11:30 A.M.	Wayne State University
April 3, 17, 24, May 1		V. F. W. Hall, Belleville
May 8, 15, 22, 29	1 to 3 P.M.	Civic Assoc. Bldg., 9611 Hubbard Livonia
May 6, 13, 20, 27	9:30 to 11:30 A.M.	Maxine Elemen. School St. Clair Shores

OUTSTATE CLASSES
(Register with your County Home Demonstration Agent)

DATE	*TIME*	*COUNTY*
Mar. 11, 13, 18, 20	Afternoon	Gladwin
Mar. 12, 14, 19, 21	Morning	Ogemaw
April 8, 10, 15, 17	Afternoon	Muskegon
April 9, 11, 16, 18	Morning	Mason
April 22, 29, May 6, 13	Afternoon	Benzie
April 23, 30, May 7, 14	Morning	Grand Traverse
April 24, May 1, 8, 15	Morning	Emmet
May 20, 27, June 10, 17	Afternoon	Cheboygan
May 21, 28, June 11, 18	Morning	Alpena
May 22, 29, June 12, 19	Morning	Alcona

For further information or copies of the material listed above, write to the Michigan Heart Association, Doctors' Building, 3919 John R, Detroit 1, Michigan.

"STROKES" FILM AVAILABLE

President Eisenhower's latest illness has stimulated interest in the Michigan Heart Association's new film, *Strokes*. The color film, approximately six minutes long, provides an excellent visual aid to physicians addressing lay groups and is especially suitable for television use.

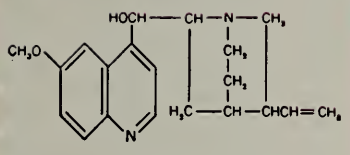
Progress in SYNTHETIC CHEMISTRY
EQUALS
Progress in CHEMOTHERAPEUTICS

"It has a high degree of clinical safety. . . It is considered to be the preferred antimalarial drug for treatment of disorders of connective tissue, because of the low incidence of gastrointestinal distress as compared to that with chloroquine phosphate."[1]

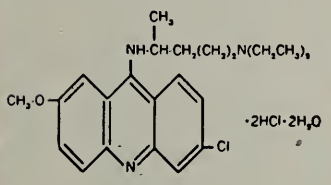
". . . Plaquenil is decidedly less toxic and better tolerated by the average patient, even in high dosage, than is chloroquine."[2]

". . . the least toxic of its class . . ."[3]

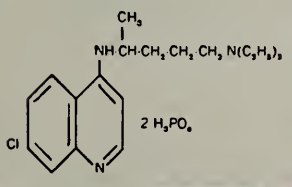
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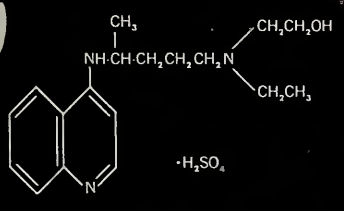
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Plaquenil® SULFATE

Remarkably effective in RHEUMATOID ARTHRITIS

SIDE EFFECTS MARKEDLY REDUCED

DOSE: **Initial** — 400 to 600 mg. (2 or 3 tablets) Plaquenil sulfate daily.
Maintenance — 200 to 400 mg. (1 or 2 tablets) daily.

SUPPLIED: Tablets of 200 mg., bottles of 100.

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NCES:
rbel, A.L., Schuchter, S.L., and Harrison, J.W.: *Cleveland Clin. Quart.* 24:98, Apr., 1957.
orial: *Bull A. Mil. Dermatologists*, The Shock Section 5:25, Nov., 1956.
bleet, Theodore: Arch. Dermat. 73:572, June, 1956.

Atabrine (brand of quinacrine), Aralen (brand of chloroquine), and Plaquenil (brand of hydroxychloroquine), trademarks reg. U.S. Pat. Off.

AMA Washington Letter

THE MONTH IN WASHINGTON

Those who are trying to follow the course of medical legislation, find an unusual situation developing in this session of Congress. All of Washington is being subjected to forces, some completely new, that often work at cross-purposes to each other. The result could be a moratorium on health legislation—or again it could be a flood of new laws.

At the start of the session, a new-born interest in science completely dominated the scene—by a frantic spending of billions of dollars we would overtake Russia. That was the theme in Washington, and it persisted despite a few quiet voices that asked whether Russia really had far outdistanced the U.S. or was merely exploiting a slight advantage.

Even before the American satellite started on its orbit, some of the panic had subsided, and most of the legislators had decided that advent of the space age had not removed all of the old problems and opportunities in legislation and politics. The familiar issues were still there, medical panaceas included.

The shock of Russian achievements will, at any rate, produce legislation designed to shore up our educational system. This seems to be generally accepted. For the medical profession, two provisions are of major interest. Scholarships would be either four years—possibly six—offering some assistance to premed students and in some cases to those in their first year of medical school. Also, fellowships would be available for medical and other graduates if they wanted to teach or go into research.

The administration's idea was a program that would cost a billion dollars; several leading Democrats joined in a bill proposing three billion dollars as a stimulant to mathematics and science.

But there are other factors to be reckoned with. For the first time a President set down in black and white in his budget just how he proposed to withdraw the federal government from some activities, or limit its participation, and turn the programs back to the states. Mr. Eisenhower wants to slow down on the Hill-Burton hospital construction program and change its emphasis, he wants to mesh in some veterans' benefits with social security payments, he would have the states do more and the U.S. less in public assistance (where medical payments are a growing factor), and he hopes to get Congress to drop the $50 million a year program of grants to help build water treatment plants.

Whether Congress will follow the President's lead in the back-to-the-states movement is another question. At least he has said specifically what he thinks should be done, and when.

There was no expectation that the Russian scare would dilute politics this election year—and it hasn't. If anything, the partisans are struggling harder than ever to make records that will reflect glory on them next November. Some of course, would be pressing for their projects regardless of the election.

So this is the prospect, in brief:

The Defense Department and science will get the major attention and the major money, but some may spill over into medicine.

There is some interest in a tight domestic budget and returning certain activities to the states, but old fashioned politics combined with a fear of a continuing recession may again open up the federal purse.

Medical legislation, always a popular subject, may get more and more attention as the session rolls on. If so, the Forand bill among others would come immediately to the fore.

Notes

Several developments in the legislative field on Jenkins-Keogh bills came early in the session. The American Thrift Assembly, representing some 10 million self-employed, urged favorable House Ways and Means action, and the American Medical Association pointed out that the proposal for tax deferment of money paid into retirement plans could help solve the problem of maldistribution of physicians.

In the Senate, a majority of the Small Business Committee introduced a tax relief bill with a J-K provision. The section would allow anyone not now benefitting from a qualified pension plan to set aside 10 per cent of annual income ($1,000, maximum). The bill went to Senate Finance Committee.

* * *

Six members of the Health Resources Advisory Committee have been named by Defense Mobilizer Gordon Gray. The committee, headed by Dr. Elmer Hess, advises government on health and medical problems in time of war or national emergency. Members are Dr. George C. Whitecotten, Oakland, Calif., Dr. Franklin Yoder, Cheyenne, Wyo., Dr. Mary Louise Gloechner, Conshohocken, Pa., Harold Oppice, D.D.S., Chicago, Ill., Dr. William Walsh, Washington, D. C., and Frances Graff, R.N., Grand Rapids, Mich.

A LIFESAVING ANTIBIOTIC AFTER OTHER ANTIBIOTICS HAD FAILED



SPONTIN comes to the medical profession with a clinical history of dramatic results — cases where the patients were given little chance of survival.

During these careful, clinical investigations, lives were saved after weeks (and sometimes months) of antibiotic failures. These were the cases where the infecting organisms had become resistant to present-day therapy. And, just as important, were the good results found against a wide range of gram-positive coccal infections.

Essentially, SPONTIN is a drug for hospital use, for patients with potentially dangerous infections. In its present form, SPONTIN is administered intravenously using the drip technique. Dosage may be dissolved in 5% dextrose in water or in any isotonic or hypotonic saline solution. Some of the important therapeutic points of SPONTIN include:

1. successful short-term therapy for acute or subacute endocarditis
2. new antimicrobial activity — no natural resistance to SPONTIN was found in tests involving hundreds of coccal strains
3. antimicrobial action against which resistance is rare — and extremely difficult to induce
4. bactericidal action at effective therapeutic dosages.

SPONTIN is truly a lifesaving antibiotic. It could save the life of one of your patients — does your hospital have it stocked?

Abbott

AMA News Notes

THE NEW TODAY'S HEALTH

Today's Health, AMA's popular health magazine, is having its face lifted! In the coming months, you'll see many changes in the magazine—a new logo (title line), new cover layout, tint block "news" page, broader editorial base, new editorial style and a completely new inside format. Since the AMA's Board of Trustees approved a reorganization plan for the magazine, the following changes in staff have been made: new editor James M. Liston, formerly special feature editor of *Better Homes and Gardens;* new associate editors—Dennis Orphan, previously associate editor of McGraw-Hill's *Industrial Distribution,* and William Vath, formerly managing editor of National Safety Council's *Safety News;* production co-ordinator Robert Hendrickson, previously with *Popular Mechanics Magazine.*

In addition, *Today's Health* now has its own advertising review committee—Leo E. Brown, AMA public relations director, chairman; Dr. Austin Smith, editor of *Journal of the AMA;* C. Joseph Stetler, director of Law Department, and W. W. Hetherington, executive publisher, *Today's Health.*

On all counts, 1957 was a good year for *Today's Health* . . . advertising lineage increased more than 30 per cent over 1956 with dollar volume showing a 40 per cent gain; 1956 advertising was renewed at a rate exceeding 90 per cent; fifty-one new advertising accounts were established in 1957; circulation continued to grow, topping the 400,000 mark for nine of the twelve issues.

AID IN BATTLING THE 1040 FORM

Don't let those income tax forms get you down! Now's the time to write to the AMA Law Department for its new booklet—"The Federal Income Tax Guide for Physicians"—for answers to some of your most perplexing tax problems. This timely new booklet has been compiled from court decisions as well as rulings, regulations and publications of the Internal Revenue Service. It has been designed to give physicians a better understanding of their rights and obligations under federal income tax laws. The Law Department staff has only one word of advice: Do not consider this booklet as a *substitute* for the services of a personal tax advisor! Incidentally, this material is also scheduled to appear in the *Journal of the AMA.*

CONFERENCE ON PERINATAL MORTALITY

The Committee on Maternal and Child Care of the AMA's Council on Medical Service will meet March 22-23, in Chicago. The second day of this meeting will be devoted to a joint conference with North Central area physicians interested in problems concerning perinatal mortality and morbidity. Topics to be discussed include terms and definitions used in perinatal mortality studies, organization and operation of such studies and classification of causes of perinatal deaths.

This will be the second regional meeting on this subject. Representatives of state and local medical society committees, state and local health departments and individual hospitals from the following states have been invited: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North and South Dakota and Wisconsin.

The Committee is working toward the development of a "Guide for Study of Perinatal Mortality and Morbidity" as an appropriate sequel to its 1957 publication, "Guide for Maternal Death Studies."

NEW RADIO HEALTH SERIES

To give your community a monthly report on the newest and best in medicine, the American Medical Association introduces its new radio transcription series —"Health Magazine of the Air" Based on current items from *Today's Health* magazine, the new 15-minute series features H. V. Kaltenborn, veteran newscaster and radio-TV commentator, and W. W. Bauer, M.D., AMA Bureau of Health Education director. The programs are produced by the Marshall Organization, Inc., under the direction of the Bureau.

Seasonal health spot announcements—three fifteen-seconds; three thirty-seconds, and two one-minute—will be presented on the reverse side of the platters. These spots will be given by popular movie personalities who contribute their time as a public service. The announcements will be presented in February by Peggy Wood of the "I Remember Mama" program.

First shipment of the new transcriptions was made to approximately 400 radio stations throughout the country in February. The platters will be released about the fifth day of each month from February through December, 1958, for immediate broadcast. Although the present selection of stations has been based on those previously airing AMA radio transcriptions, local medical societies may contact the Bureau of Health Education for further information regarding additional outlets.

MEETING ON PROBLEMS OF THE AGING

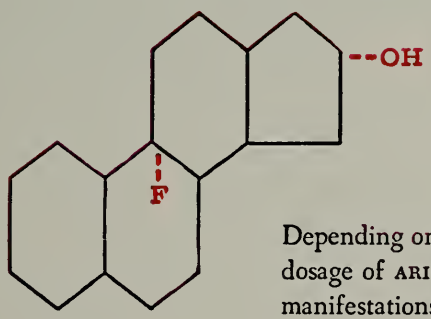
Problems of the aging and ways that the medical profession can assume leadership in helping to solve them will be discussed at a regional meeting of the AMA's Committee on Aging, March 29-30, in Birmingham, Alabama. Representatives of the state medical associations of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee have been invited to attend the conference sponsored by the Council on Medical Service. This meeting will be similar to those held previously in Seattle, Dallas and Philadelphia. Proceedings of some of these earlier meetings have been published and are available on request from the Council.

The Achievement in Respiratory Allergies: "Good to excellent" results in 29 of 30 patients with chronic intractable bronchial asthma at an average daily dosage of only 7 mg.[6]... Average dosage of 6 mg. daily to control asthma and 2 to 6 mg. to control allergic rhinitis in a group of 42 patients, with an actual reduction of blood pressure in 12 of these.[7]

The Achievement in Other Conditions: Two failures, 4 partial remissions and 8 cases with complete disappearance of abnormal chemical findings lead to characterization of ARISTOCORT as possibly the most desirable steroid to date in treatment of the nephrotic syndrome.[8,9]... Prompt decrease in the cyanosis and dyspnea of pulmonary emphysema and fibrosis, with marked improvement in patients refractory to prednisone.[10,11,12]... Favorable response reported for 25 of 28 cases of disseminated lupus erythematosus.[13]

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Triamcinolone LEDERLE



Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

Comparative studies of patients changed to ARISTOCORT from prednisone indicate a dosage of ARISTOCORT lower by about ⅓ in rheumatoid arthritis, by ⅓ in allergic rhinitis and bronchial asthma, and by ⅓ to ½ in inflammatory and allergic skin diseases. With ARISTOCORT, no precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

ARISTOCORT is available in 2 mg. scored tablets (pink), bottles of 30; and 4 mg. scored tablets (white), bottles of 30 and 100.

Lederle LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER NEW YORK

Important Announcement of Arteriosclerosis Treatment

GEROT PHARMACEUTIKA, owners of United States Letters Patent #2-776-973 issued January 1957 to Gerhard Gergely of Vienna, Austria, have licensed MEYER AND COMPANY of Detroit, Michigan, to synthesize and market 3, 7-dimethyl-xanthine double salt in the United States of America.

3, 7-dimethyl-xanthine double salt of oleic acid and magnesium, a stable compound marketed in Austria since 1950 under the name "Perskleran" and used in the treatment of ARTERIOSCLEROSIS is being marketed by MEYER AND COMPANY under the trade name of "Athemol."

The product is now available in tablet form.

Literature and clinical samples are available on request.

MEYER AND COMPANY

Pharmaceutical Manufacturers

16361 Mack Ave.

Detroit 24, Michigan

ORIGINS OF SELF REGULATION IN MEDICINE: PART II

(Continued from Page 334)

embracing the Oath, Law, Precepts and Decorum. There was no compulsion to ethical practice in ancient Greece except the physician's genuine love of his craft, the general Greek view of morality rendering it quite unnecessary. It is significant that the principles expressed in the Hippocratic Code have been the ideal guides to ethical conduct for over 2000 years, and that practically every great leader in medicine through all the intervening years has echoed the same ethical precepts of the Hippocratic writing. The Oath itself was not a code of conduct for physicians as we regard it today, but a pledge taken by a pupil when he bound himself to a master for the period of study requisite to enter the profession of healing. It set ethical standards which no governmental authority could enforce.

In 46 B.C., Julius Caesar relieved physicians of taxation, the duty of serving in civil office, of military service, and of taking lodgers. However, there was no rule of fitness, so anyone could call himself a healer. Under Antoninus Pius a plan was established whereby in every city, depending upon its size, only a certain number of physicians received the privilege of practice. Now one had to prove his fitness before the common council of the city in order to obtain the approbation of the state. The Romans went one step farther in the next two centuries. Instruction in medicine was first a private matter. By the third century the state had not only placed lecture halls and workshops at the disposal of physicians but had begun to appoint instructors in medicine.

ST. CLAIR CMS ESTABLISHES HONORARY LECTURSHIP

As a tribute for the contribution of time and service given by Clarence D. Selby, M.D., to the St. Clair County Medical Society, the group established a continuing annual lectureship in his honor. The announcement was made at the Society's January meeting, by Donald A. Koch, M.D., who said in part, "Despite his years, as Secretary of our Society, Doctor Selby has given us energetic constructive leadership far beyond what the position demanded. Therefore, it is no more than cause and effect that we should stop to honor him. We know full well that honors from us are small in comparison to past honors, but they are no less real."

Society members contributed a sum of $2,000 and the Cancer Service of St. Clair County offered to provide up to $500 each year so that nationally prominent medical teachers might be obtained as speakers for the lectureship.

Say you saw it in the Journal of the Michigan State Medical Society

new for angina

PETN + ATARAX®

(PENTAERYTHRITOL TETRANITRATE) (HYDROXYZINE)

CARTRAX*

links
freedom from
anginal attacks

with a shelter of
tranquility

In pain. Anxious. Fearful. On the road to cardiac invalidism. These are the pathways of angina patients. For fear and pain are inexorably linked in the angina syndrome.

For angina patients—perhaps the next one who enters your office—won't you consider new CARTRAX? This doubly effective therapy combines PETN (pentaerythritol tetranitrate) for lasting vasodilation and ATARAX for peace of mind. Thus CARTRAX relieves not only the anginal pain but reduces the concomitant anxiety.

Dosage and supplied: begin with 1 to 2 yellow CARTRAX "10" tablets (10 mg. PETN plus 10 mg. ATARAX) 3 to 4 times daily. When indicated, this may be increased for more optimal effect by switching to pink CARTRAX "20" tablets (20 mg. PETN plus 10 mg. ATARAX.) For convenience, write "CARTRAX 10" or "CARTRAX 20." In bottles of 100. CARTRAX should be taken 30 to 60 minutes *before* meals, on a continuous dosage schedule. Use PETN preparations with caution in glaucoma.

"Cardiac patients who show significant manifestations of anxiety should receive ataractic treatment as part of the therapeutic approach to the cardiac problem."[1]

1. Waldman, S., and Pelner, L.: Am. Pract. & Digest Treat. *8*:1075 (July) 1957.

*TRADEMARK

Rx PFIZER

New York 17, New York
Division, Chas. Pfizer & Co., Inc.

Editorial Opinion

CHEMICAL TESTS FOR INTOXICATION

One of the most interesting contributions to the September issue of the *Journal of the Michigan State Medical Society,* by C. W. Muehleberger, discussed the use of chemical tests for alcoholic intoxication in Michigan law enforcement. The usually accepted concentration sufficient to cause intoxication is 0.15 per cent or more. Dr. Meuhlberger stated that 2,000 volumes of alveolar breath will contain the same amount of alcohol as one volume of blood, and that the test was simpler to perform than the blood concentration determination.

The United States Supreme Court has ruled that taking a specimen of blood from an individual arrested for drunken driving does not violate his rights as an individual.† Apparently Mr. Lester P. Dodd, legal counsel for the Michigan State Medical Society, had not read the Supreme Court decision when, in a letter to Secretary Bill Burns, he gave as his opinion that "a doctor has no right to draw a blood sample without the consent of the patient."‡ Dr. Muehlberger admits that there are technical if not legal difficulties in obtaining blood specimens for examination, but says that the measurement of the alcohol content of the breath or urine "are only slightly less reliable as an index of alcohol intoxication and . . . are amply accurate." For many reasons, the breath test is more satisfactory and more reliable than the urine test.

The use of chemical tests for alcoholic intoxication is of special interest in North Carolina. As has been stated before in this Journal,* in 1938 a presidential recommendation that our society sponsor such a test was unanimously approved by the House of Delegates—but our state legislature would not hear to its adoption. Since then, a number of states have required such a test and in all states it is accepted as reliable evidence. It has been used in Winston-Salem since July, 1951. That it may be beneficial to one arrested for drunken driving was evidenced by the fact that of the first eleven men arrested in Winston-Salem for drunken driving, two were sent to the hospital instead of to jail. It is possible that their lives were saved as a result.—Editorial, *North Carolina Medical Journal,* December, 1957.

†Breithaut v. Abram.

‡Muehlberger, C. W.: Use of Chemical Tests for Intoxication In Michigan Law Enforcement, J. Michigan M. Soc., 56:1127-1132 (Sept.) 1957.

*Editorial, North Carolina M. J., 17:325 (July) 1951.

SEEING ONLY THE TREES

One of the problems facing the directors of Michigan Medical Service is the non-participating physician. He is the doctor who has received the fee allotted as partial rather than full payment for the service rendered. This in itself is not a violation of the terms of contract if the patient's income is in excess of the income limit of the policy: but it is a violation of the spirit as well as the terms of contract if the income of the patient is at or below this stipulated limit. Moreover it creates the impression that the doctor is letting the program become a simple collection agency for his office.

The recent Opinion Study indicates that the physician who believes that no one but himself can set a fair and proper fee is in small minority. However, the spurious character of fixed income limits set by a third party has created another group. This is probably a minority, but this minority has certain justification for its position.

Blue Shield once enrolled entire groups in one income limit bulk policy: the hourly-rated employe and the executive alike. This is remembered by doctors. For many years the spokesmen for the large organized groups held their people within the minimal income limit of the policy when the actual income had risen considerably above that level. Everyone knew that the contract-identified income bore no relationship to fact. Doctors remembered this. During the decade of the Great Men there was no visible evidence of improvement of contract in terms of expanded service to policy holders or realism in the fee paid for service rendered. Doctors remembered this, too.

There have been rumbles that the presently-developing new contracts will differentiate between the participating and the non-participating

(Continued on Page 409)

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A Reasonable Attitude toward the Medical Use of Diagnostic Radiation

By William R. Eyler, M.D., and
Wendell M. Burns, M.D.
Detroit, Michigan

FROM the beginning of life, man and his phylogenetic predecessors have been immersed in a sea of radiation. Indeed, it seems likely that the natural radioactivity at the level of the earth's crust has been steadily decreasing since the formation of the earth. Present concern with the effect of radiation upon humanity thus is a consideration not of a new agent, but rather of what effect a quantitative difference may cause.

The study of this field is divided necessarily into the problem of the effects of radiation on the individual and that of the genetic effects on the future of the race. The genetic aspect will be considered first.

In order to form an idea of the magnitude of this change in incident radiation and to compare it to what mankind has been receiving previously, the components of "natural" radiation will be examined. The highest energy radiation incident upon mankind is that of cosmic rays. This radiation is very penetrating; it delivers approximately 0.028 rad* per year.[3] If one lives at an altitude of 10,000 feet, this will be increased by a factor of three (1 rad = 1000 m rad).

Gamma radiation from local surroundings is responsible for the greater fraction of the external radiation dose. This radiation is of high energy, but lower than cosmic rays. The dose varies with the location depending on the amount of naturally radioactive materials present. It is higher in certain types of brick and concrete houses and highest in buildings made of granite.[10] In general this totals about 0.043 rad per year and is seldom higher than 0.3 rad per year.[12] The activity due to radon in the air contributes approximately 0.001 rad per year.[8]

Radiation from the atoms of our own tissues arises from Potassium 40, Carbon 14 and the radon series. Potassium 40 delivers a dose calculated at approximately 0.02 rad per year, Carbon 14 contributes about 0.001 rad per year, and radon and its disintegration products in the tissues contribute 0.002 rad per year.[8] Thus for an Englishman living in Leeds and probably for an American living in Detroit, the total dose per year is about 0.095 rad and the total dose to age thirty to either gonads or other tissues totals approximately 2.85 rads.[8] Since the only radiation of genetic importance is that received prior to parenthood, and the average age at parenthood is thirty years, the significant figure is the thirty-year gonadal dose; this figure is very conveniently close to one hundred millirads per year. This information is summarized in Table I.[8]

Our current civilization imposes additional radiation upon the bone marrow and genes of man-

Dr. Eyler is Radiologist-in-Chief and Dr. Burns is a Resident in Radiology, Henry Ford Hospital, Detroit, Michigan.

*The rad is a unit of absorbed dose and thus a more biologically significant unit than the "r" or incident dose. Whenever possible, rads will be used as the unit, but where no such data are available, the "r" will be used.

TABLE I. DOSE-RATES TO THE GONADS FOR A REGION OF 'NORMAL' GROUND RADIOACTIVITY

Radiation Source	Dose to Gonads Per Year (rad)
External Irradiation	
Cosmic rays (sea level)	0.028
Local gamma rays (Leeds, 78 millirad/year indoors	
48 millirad/year out-of-doors	0.043
Radon in air, 3 x 10^{-13} c/l	0.001
nternal Irradiation	
Potassium 40	0.020
Carbon 14	0.001
Radon + disintegration products, 3 x 10^{-13}c/l	0.002
Total dose per year	0.095†
Dose to age 30 years	2.85†

†Includes allowance for the R. B. E. of the alpha radiation where present, and therefore also expresses the gonad-dose in rem.
Reproduced from the Report of the Medical Research Council of England[8].

kind. The largest source of radiation is, without doubt, the medical use of diagnostic roentgen examinations. The minimum estimates for the population dose of this radiation per year range from a low of 22 mr* arrived at in the area of Leeds,[8] to estimates of 100 mr made for this country.[9] Radiotherapy has, in general, been given to those beyond the reproductive age so that gonadal doses are not important. Fluoroscopic shoe fitting has probably contributed 0.1 mr, luminous watches and clocks 1 mr, television sets, as presently used, considerably less than 1 mr and high altitude flying has not increased significantly the population dose. Occupational exposure in radiology and industry has contributed at least 1.6 mr, the atomic energy personnel exposure at least 0.1 mr and fall-out from test explosions less than 1 mr per year in the United Kingdom (Table II).[8] If weapons-testing is continued at the rate of the last five years, the estimated yearly gonadal dose in this country is 3 mr, but if it were to proceed at the higher levels of 1953 and 1955, this dose would be multiplied by two.[9] The total is thus slightly above the natural background.

The mechansim by which superior individuals are produced is the same as that which leads to individual hereditary defect, namely that of genetic mutation. If the exact fraction of the load of mutant genes carried by the population which is the result of radiation were known, the quantity of radiation required to produce any given percentage change in the number of mutant genes in the population could be calculated. Although the figure is not known exactly, there is good evidence that something between 2 and 20 per cent of the mutants are the result of previous radiation received by past generations.[8]

*1 r = 1000 mr

The application of radiation results in the acceleration of the evolutionary process and since many more unfavorable mutations are produced than favorable ones, an increase of the process of natural selection results. The best estimate which can be made at this time of the dose of radiation, which if administered continuously to the entire population for 100 generations would cause a doubling of the amount of clinically apparent mutation, is 50 rads gonadal dose by age thirty.[2,8,9] If this dose is administered to the entire population for one generation, however, the apparent clinical increase in mutations is barely detectable, being of the order of 2 to 3 per cent.[8,9] Genetic defects which may be apparent in the population include mental and physical defects of all categories. Roughly, 4 to 5 per cent of all viable babies born in the United States have defects. Of all of these, it is estimated that half or about 2 per cent of the total live births have defects of simple genetic origin.[9] If the total population were then subjected to a doubling dose of radiation, continuously for the next 100 generations, this 2 per cent of such genetic defects would gradually rise and eventually be doubled.

The British report[8] states that "four per cent of all babies die stillborn or die shortly after birth while another two per cent survive but are malformed; and in addition, a considerable number in later years develop diseases or abnormalities in which hereditary constitution is a predominant cause." Doubling mutation rates of both parents would add an additional 0.2 per cent to the present 7 to 8 per cent chance of producing a defective child, or add 0.2 per cent to the 2 or more per cent of anticipated hereditary defects. According to their specific hereditary transmission

TABLE II. SUMMARY OF ESTIMATED POPULATION DOSES OF RADIATION TO GONADS

Source of Radiation	Approximate Dose to Gonads as a Percentage of Natural Background
Natural background	100
Diagnostic radiology	at least 22
Radiotherapy	?
Shoe-fitting	0.1
Luminous watches and clocks	1
Television sets	much less than 1
High altitude flying	insignificant
Occupational exposure:	
Radiology and Industry	at least 1.6
Atomic Energy Authority	0.1
Fall-out from test explosions	less than 1

Reproduced from the Report of the Medical Research Council of England[8].

pattern (dominant, recessive, or sex linked), the various hereditary abnormalities can be classified as to their appearance in the first generation.

Although 50 rads is considered a tolerable dose for a very small fraction of the population, 10 rads is suggested as the top limit for the whole population.[8,9] The current dose is 4 rads. At present dose levels, about 0.01 per cent of the new generation or 1/10,000 bear some defect due to "civilization" radiation compared to 800/10,000 who are stillborn or malformed due to other causes.[8] The wide dispersion of latent mutations makes the average dose received by the whole population the important figure; if many members receive no radiation beyond the natural background, the tolerance of those who do receive radiation is correspondingly greater. For example, your grandson will not inquire of his prospective bride whether or not her grandmother had roentgen pelvimetry.

The second aspect is the effect of radiation on the individual. Experimental work with animals is of importance, but there are many lines of information about the actual effects of radiation on man. Accidental exposures and exposures during time of war indicate that when a population is subjected to a dose of between 400 and 600 roentgens total body radiation, half will succumb. These effects are mediated largely by damage to the blood-forming tissues and to the intestinal tract. It is known that very young and very old individuals have an increased sensitivity to lethal effects of radiation. The effects on the blood-forming organs and the gastrointestinal tract are generally direct effects, but there are also indirect effects of radiation. For example, protection of the spleen during total body radiation will considerably reduce the effect of the dose;[1] thus, if one is about to be subjected to a sudden large amount of radiation, it is suggested that he make an effort to protect his spleen.

At the other end of the time scale is the chronic small dose exposure received by those whose occupations bring them into contact with radium and x-ray. Without doubt, many of the early radiologists must have received as much as 1000 roentgens. There is an increased mortality among radiologists due to leukemia, which indicates an examination of the relationship of leukemia to radiation. The best study of this relationship is that of E. B. Lewis,[5] who has correlated data from four groups of individuals about the relationship of radiation and leukemia. These groups are: first, survivors of the atomic bomb radiations in Japan; second, patients radiated for ankylosing spondylitis; third, children radiated as infants for thymic enlargement; and fourth, radiologists.

The reported death rate from leukemia has increased since 1900, and particularly since 1930, with a crude mortality rate for leukemia of 68 per million per year in 1954 compared to 42 per million per year in 1940.[5] Improvement in diagnosis doubtless explains part of this, but other factors may be responsible such as the increased exposure of the population to radiation. The incidence of leukemia among the survivors of Hiroshima and Nagasaki has been plotted in comparison with the distance of the individuals from the hypocenter and thus, the dose which they received.[5] This is corrected by subtracting the incidence occurring in residents who were outside the zone of significant radiation. This analysis shows an increased incidence of leukemia as the hypocenter is approached until in the zone from 0 to 1,000 meters, the incidence is nearly 1 per cent for this seven and three-quarter year follow-up period. When the incidence for each zone is divided by the estimated dose and allowance made for shielding, a relatively constant value for probability of acquiring leukemia of 2×10^{-6} per individual per rad per year is obtained. Thus, if an individual receives a total body dose of 100

rads, his chance of dying of leukemia is 200 out of 1,000,000.

Court Brown and Doll[8] have studied the incidence of leukemia among patients treated with x-rays for ankylosing spondylitis. Of 11,287 patients radiated during the period of 1935 to 1954, thirty-seven developed leukemia. In this situation as well, the dose of radiation delivered to the red marrow increased the incidence of leukemia in proportional fashion, and considering the dose of radiation delivered to the entire red marrow system, a remarkably similar range of probability of 0.6×10^{-6} to 2×10^{-6} per individual per rad per year is obtained.[5]

Simpson, Hemplemann and Fuller[11] traced 1400 individual infants who had been given radiation for enlarged thymus and a control group of nearly 1800 unirradiated siblings. In the irradiated group there were seven confirmed cases of leukemia with none in controls. The number of cases expected in this treated population is 0.6. This study needs a comparable group of children with enlarged thymus who have not been treated with radiation, but at the same time, the probability of leukemia in the thymic enlargement group falls in the same general range as those of the other categories; the probability of acquiring leukemia has the value of 0.4×10^{-6} to 6×10^{-6} per rad to the lymphatic system per individual per year.[5]

Though others had preceded him with case reports, March[6] called attention to the increased incidence of leukemia in radiologists in 1944. At the time of his second report in 1950,[7] he had collected a total of fourteen deaths from leukemia in radiologists. Subjecting this information to the same type of analysis applied to the other bodies of data, Lewis arrives at a leukemia probability value of 0.7×10^{-6} to 7×10^{-6} per individual per rad per year.

When one turns, however, to the evidence for shortening of radiologists' lives, Warren's figure of five and two-tenths years[9,15] is subject to considerable interpretation on the basis of age distribution.[5]* Detailed analysis suggests that the total death rate from all causes for radiologists lies between the higher death rate for all physicians and the lower rate for all medical specialists.

A preliminary report by Stewart[14] and others suggests that the fetus *in utero* is particularly susceptible to radiation.

*See additional bibliography at end of article.

Discussion

The recent consideration of the hazards of radiation has served again to alert the medical profession, and radiologists in particular, to the need for improving techniques and limiting patient exposure to a minimum. There is no question that, at the present time, the yield of otherwise unobtainable information concerning life-shortening disease and correctable life-shortening disease, far exceeds the chance of a patient succumbing from leukemia. The considerable lay publicity has almost always overlooked the great benefit derived from diagnostic radiation. Survey studies of asymptomatic individuals over fifty years of age show 0.2 per cent incidence of cancer alone.[13]

Technical advances such as increased film speed, image amplification, higher voltages and increased filtration all have reduced the amount of radiation received by patients during diagnostic studies.

Summary

1. The production of mutations by radiation absorbed by the gonads prior to parenthood is a linear function of the quantity of radiation without any evidence of a threshold effect and for this reason, all unnecessary pre-parenthood gonadal radiation is contra-indicated.

2. The incidence of clinically apparent mutations induced at the present rate of uilization of diagnostic medical x-rays and present quantity of fall-out from nuclear explosions is predictable with fair certainly as approximately 1/10,000 new births compared to 800/10,000 stillborn or malformed due to other causes. This does not appear excessive in view of the benefits derived from diagnostic radiation, but such radiation should be reduced by all possible means.

3. Those procedures which produce a particularly high dose to the patient, such as pelvimetry, should be carefully re-evaluated both for possible improvements in technique and as to indications for their use.

4. The probability of an individual developing leukemia, in addition to the spontaneous incidence, appears to be a direct function of the amount of radiation absorbed by him, again without a threshold level, but with a linear relationship between radiation absorbed by the red bone marrow and frequency of leukemia.

5. The yield from diagnostic roentgen studies

(Continued on Page 369)

The Role of the Physician in the Care of the Mentally Retarded

By James L. Wilson, M.D.
Ann Arbor, Michigan

IT IS LOGICAL for a physician to play his greatest part in the early detection of mental deficiency in very young children or infants. It would be ideal if always he were the first to detect this problem and initiate some evaluation in very early infancy and long before the child reaches school age. It is also logical that the first approach for assistance should be made by parents to the physician when they first worry about the mental capacity of a small child. The physician should be the first to aid in the evaluation of the baby's mental level, and most importantly, to see if there is a physical explanation for the mental defect. It is clear, on the one hand, that mental defects result from many different diseases which may damage the brain before or after the child is born, and, on the other hand, the evaluation of a mental handicap is made much more difficult by the presence of disease even if the disease in itself does not cause this mental handicap. A great many illnesses bring about apparent mental retardation which is not an evidence of actual incapacity to learn, but is only an evidence of a handicap in learning. This is a tremendously complex field which I cannot even summarize in a few pages.

It is clear that accidents varying all the way from an automobile collision to birth injuries may cause damage to the brain after the baby is born. Also, the accidents of infection, such as inflammation of the brain in meningitis or encephalitis (usually due to virus infections) may cause either temporary or irreparable brain damage—sometimes immediately obvious but at other times not evident for many months.

It is less well understood that babies can be born with defective brains due to intrauterine disease, extremely difficult to detect, and occurring long before the baby is born. Congenital abnormalities of the brain or body (those with which a baby is born) are commonly, but often inaccurately, blamed on heredity—on faulty development of the fetus in its very early life due to defects in chromosomes and genes rather than on intrauterine disease. We have been too much inclined to blame all defects present at birth on family traits, often with great distress to parents because of the fear for the well-being of their future children.

One of the commonest causes of brain defect which leads to mental deficiency and often to many other problems such as that called cerebral palsy, is a premature birth. An infant, small at birth, certainly presents a greater risk of trouble. There are two general causes for a tiny birth weight. Some are born small because of intrauterine disease, which we rarely can detect, and some are small for the commonly accepted reason that they are not carried to term. In each case certain risks occur. Frequently it may be months or even a year or two after birth before we find some of the more subtle evidences of brain inadequacy consequent to premature birth due to intrauterine disease which has resulted in the immaturity of the infant at birth.

The duty of the physician to make a diagnosis of mental deficiency as early as possible and to transmit this information to the parents is a clear one, and yet it is one which unfortunately is sometimes avoided by the physician for reasons which may at first seem hard to understand. We certainly all believe that it is highly desirable to present the facts, even unpleasant ones, as early as possible to the parents so that a constructive course in the management of the child can be planned and followed. Even though there is little to do from a strict educational point of view for a mentally retarded child of one year of age, I think most will agree that it is immensely important that the parents become immediately aware of their problem so that they will develop the courage to face it early, and not have it

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From the Department of Pediatrics, University Hospital, Ann Arbor, Michigan.

brought to their attention, perhaps suddenly and in a tragic and dramatic way, when they attempt to put the child in school.

There is an understandable temptation for the physician to avoid this unpleasant duty. When a frank and honest analysis of mental retardation is made in infancy and presented to the parents, who see only a cute and appealing baby, the response is apt to be one of resistance and denial of his opinion which is, of course, distressing to the physician. It is also extremely important that the physician be entirely correct. He cannot, in most cases, wisely transmit only his suspicion of trouble to the parents. It seems to me that there is less inclination to forgive a physician when he gives a wrong bad prognosis than when he gives a wrong good one. Optimism that is wrong is more pleasant than pessimism that is wrong. The physician must be correct and certain in his prognosis of mental deficiency, and it is evident that the younger the child the harder it is to be sure, and the more likely it is that some physical situation which is abnormal (but not of major importance) may cause apparent retardation. Since he knows nothing can be done about the problem at the time there is a tendency, which I deprecate (but with which I sympathize) for the physician to procastinate, and to avoid a discussion of the problem as long as the physical health of the child remains good. It is, of course, our duty to teach our medical students and graduate students to face this problem courageously and energetically as soon as they have a suspicion, but, as I have said, the physician must be sure of his grounds, and even the request for medical consultation can be embarrassing if his suspicion is not supported.

The importance of intrauterine disease as a cause of congenital abnormalities has just begun to be understood, and it appears that more detailed studies of the health of pregnant women are going to elicit some very fruitful fields for research. Here, techniques of prevention may ultimately enable us to save our children from many conditions which previously have been blamed on heredity defects.

We are beginning to recognize congenital, that is "born with," abnormalities, that are more subtle than the gross anatomical defects such as harelips, cleft palates, or abnormalities of the heart. It is harder to appreciate and evaluate the far more subtle, but just as real, abnormalities that are the result of enzyme disturbances in the body, or the malfunction of certain glands. Errors in body chemistry or, as it has been called, inborn errors of metabolism, can cause mental deficiency. There are now at least three congenital abnormalities of physiological function which we know may lead to mental retardation and which are preventable—or at least, in part, correctible, even though the basic condition is not yet curable. I might mention them briefly although I believe you are familiar with them.

One is abnormality of the thyroid gland, the oldest one in point of understanding. Absence of adequate thyroid activity leads to cretinism with which mental defect is almost always associated. Here, early diagnosis is absolutely essential, and prevention of brain damage can take place to a very great extent by the use of substitution therapy, that is, the use of thyroid. I hardly need to talk about this common problem. It is the first endocrine gland defect that we have understood and there is much too great an inclination to blame it for many cases of retardation and to use thyroid therapy with ultimate and bitter disappointment. However, there is no question but sometimes this fault does exist and can be corrected by proper treatment. It is important to emphasize again how it is over-diagnosed and that many children are given thyroid unnecessarily.

Another inborn error of metabolism is called galactosemia. Here, there is a defect in the handling of certain carbohydrates (sugars) by the liver, so that an abnormal level of galactose is always circulating in the blood, producing various defects, among them mental defect, or brain damage. Here is a condition easy to diagnose by a simple test of the urine, and which appears quite easy to correct by diet control although the correction must be continued indefinitely.

A most promising forward step was the identification of the disease, phenylpyruvic oligophrenia, as a cause of severe brain damage. In this condition, there seems to be a fault in the liver due to the lack of certain enzymes, or the overproduction of others, in handling of certain normal foods, basically protein, which results in the circulation of a substance which causes brain damage. It occurs classically on a hereditary basis in certain little blond children, and the detection of the condition (at least in a gross screening test) is very simple—a urine test which can be carried out in five minutes. It is appar-

ent that a very small percentage of all retarded children suffer from this condition, and it seems probable, at present, that if it could be diagnosed early it could be prevented. The condition itself cannot now be cured since it is an inborn hereditary one, but the ill effects of it apparently can be prevented, if detected early, by a very strict and (at present) expensive diet. The detection is by a simple urinalysis but would have to perform it on some 10,000 healthy infants to find one early case. The burden would be far less were we to test only those childrn who show some symptoms, but that would not constitute prevention since already some damage would be done. Attempts at such routine examinations are now under way and undoubtedly will be carried out more frequently, but you can see the difficulty of even simple tests in little babies when urine is necessary for the test and when the test cannot be carried out successfully in the very early newborn period. The real importance in the discovery of this disease is the possibility that other similar defects may be better understood and hence, prevented.

One of the big problems which a physician must face is to make an early determination of mental deficiency in infants. Attempts at psychometric examination on little babies are difficult even though one might think, superficially, that it is easy, especially judging from the publications of certain enthusiasts. The evaluation of the mental level of an infant, however, depends upon his actions; what he does, not what he says or how he does arithmetic. There are many other causes besides primary brain disease which can prevent a baby from developing certain actions—from smiling, from sitting up, from standing up, from walking, and talking. Perhaps the most vivid and easily understood causes of apparent (but not real) mental deficiency are blindness and deafness, or a bad heart, or a severe lung disease. When such conditions are found in conjunction with slowness of development in the baby, it becomes a difficult problem to find out which is the cart and which is the horse, which is the leading problem and which is the secondary one. It is often true that certain brain defects, which are associated with mental deficiency, also prevent normal physical development and lead to general physical defects which might seem at first to be the cause of the mental deficiency rather than an associated or consequent condition.

The duty of the physician in regard to young children is thus to determine whether or not there is a physical cause, and to make the preliminary steps, I believe, in helping to organize the future care of this child although, as a physician, he is not trained to deal with the technical problems of the actual education and training.

If I may be so bold as to go beyond the limitations which some might impose on the physician, I should like to express my desire, also, to see great changes forthcoming in the facilities for caring for these children. Undoubtedly, permanent custodial care for some always will be necessary. No matter how good the home and how good the day school care is, some of these children cannot be happy in the relatively unprotected environment common in most homes and communities. Often these children are greatly in need to be with others like themselves. It will be wonderful when our institutions for the care of the mentally retarded are called and actually do function as "boarding schools"—perhaps permanent, perhaps not, as the case may demand. Here, the word "commitment" may become unnecessary. Here, facilities for constant training and evaluation of progress could be made readily available and simple custodial care limited only to those poor unfortunates who can respond in no way to training. Unfortunately there are plenty of those.

I should like also to see more nursery schools for very young children, not for their use only in training, but for their use early in a child's life, even in the second year, in an attempt better to determine, by observation, the capacity of the child under conditions of optimal stimulation. I will grant that there is not much point in sending a healthy normal child to a nursery school at the age of three years (perhaps even four) except to give the mother relief, but for retarded babies or babies with question of retardation, the earlier use of nursery schools can have a far greater function. Not only does it give the parents the great security that someone is constantly interested in determining the best that their child can do and stimulating him as much as possible, but it actually aids in more rapidly arriving at a prognosis in many of the borderline cases.

The Effect of Antimetabolites on Embryonic Development

By Jacques S. Gottlieb, M.D.,
Charles E. Frohman, Ph.D., and
Joan M. Havlena, M.A.
Detroit, Michigan

THE PURPOSE of this presentation is to outline for your consideration an area of research concerned with certain aspects of the etiology of mental retardation. We are well aware that the causes of mental retardation are multiple, running the gamut from genetic factors, adverse influences on the growing embryo, accidents associated with the birth process, to both physical and social environmental factors in the first few years of life.

Among the variables that influence embryonic development, considerable knowledge has accumulated to indicate that the nutrition of the mother is of vital importance to the health of the growing embryo. Most of this evidence comes from statistical studies, particularly as it applies to human beings. Direct research has been done on the effect of dietary deficiencies on the formation of the fetus, which of course has been done with animals, but very little attention has been given to disturbances in learning and the behavior of the offspring.[1] It would therefore be of interest to study, in major detail, the effect of various nutritional deficiencies during different periods of an animal's pregnancy upon the normal development and subsequent behavior of this animal's offspring.

As mentioned, direct research in this area is difficult and limited. In the first place, it requires several months of diet deprivation to cause a full-grown deficiency. Consequently, it is impossible to have such a deficiency begin at any specific time in the embryonic development. Secondly, if a dietary deficiency is produced, the chances of such an animal reproducing offspring is minimal.

Fortunately, there is another manner in which a dietary deficiency may be induced. This is through the use of metabolic antagonists (antimetabolites). These are substances similar in structure to a normal vitamin or hormone which can, by replacing the vitamin or hormone in the metabolic process, block a specific enzyme system and thus produce a specific deficiency in a matter, not of days but of hours. Using this technique, then, it is possible to induce specific deficiencies in animals at any time during the pregnancy. The results of these specific deficiencies may then be studied.

In addition to producing acute dietary deficiency states at any chosen time during the development of the fetus, another nutritional aspect presents itself because certain antagonists (some of these antimetabolic substances) are present in normal foods. Consequently, these too play a role in the production of mental abnormalities in offspring. In addition, certain drugs which block enzyme systems may be studied too. Such are the purposes of these investigations.

Method

The animal chosen for study was the rat, because of its easy availability, its low cost, its short gestation period (21 days), its standard genetic breeding and the well-worked-out dietary requirements for maintenance on a synthetic diet. The standard diet used contained all the essential nutritional elements in quantifiable terms.

The following antagonists were chosen for this study. The first one is oxythiamine.[2] This is an antagonist to thiamine (vitamin B_1). Thiamine acts in the body to form the co-enzyme co-carboxylase or thiamine pyrophosphate.[3] Without this enzyme, energy production is virtually impossible. Also the synthesis of acetylcholine, a substance necessary for nerve conduction, is grossly retarded. Hence, it is of extreme importance in the development of the brain.

A second antagonist chosen for study is isonicotinic hydrazide, an antagonist for the vitaman pyridoxine. Isonicotinic hydrazide is a drug commonly used in the treatment of tuberculosis. A deficiency of pyridoxine may result in mental symptoms comparable to those seen in a thiamine

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From the Lafayette Clinic and Wayne State University, Detroit, Michigan.

deficiency. This vitamin, pyridoxine, is very important in the metabolism of the central nervous system, since it is instrumental in the removal of ammonia which acts as a neural poison. The administration of pyridoxine antagonists to animals results in epileptiform seizures.[4] This vitamin is also important in the formation of many other substances including the neuro-hormone, serotonin.

A third antagonist selected for study was methionine sulfoxide, a substance which resulted when agene, a bleaching agent, was added to wheat flour for whitening purposes. This substance produced mental symptoms in certain animals but not in others.[5] In dogs, administration of this compound causes a disease known as canine hysteria. However, large doses have no effect on either humans or rats. This lack of effect in rats and humans may be due to the blood brain barrier. Therefore, the effect of methionine sulfoxide on unborn rats (which supposedly possess no such barrier) would be interesting. Apparently this is a glutamic acid antagonist.

A fourth compound selected for study as an antimetabolite is indole-3 acetic acid, an antagonist of a very important substance called serotonin (mentioned above). The exact function of serotonin in neural tissue is unknown although its importance in metabolism of the brain is well recognized.

Finally a fifth substance, tryptamine (which occurs in the colon through bacterial action but is not proven to be connected with disturbances of mental function in humans) was chosen because of its possible antimetabolic action on various enzyme systems of the central nervous system. This compound also may be an antagonist of serotonin.

In the animal laboratories, then, a group of rats was fed each one of the five above-named antagonists and a sixth group of animals was used as a control and were chosen immediately following their impregnation. These diets were continued for seven days through the first trimester of the rat's pregnancy. The rat mothers were all tested on the seventh day to determine whether their learning ability and behavior had been influenced in any way by the antimetabolites. No abnormalities were found in the mothers to indicate that the level of antagonist was high enough to affect the mental function of the parental rats.

Results

The fifteen pregnant animals placed on a control diet all had offspring, producing a total of 135 babies. Only one in this group of offspring was grossly abnormal. Of the twenty-two pregnant animals given oxythiamine only one delivered. The five babies born to this mother all had gross abnormalities and all were killed by their mother. The twenty-one other pregnant animals had absorbed their fetuses before birth. Absorption occurred around the eighteenth day, well after the antimetabolite had been discontinued.

Of the twenty animals given isonicotinic hydrazide only one delivered any offspring. It had seven animals, none of whom survived. The other nineteen pregnant animals had absorbed their fetuses before birth.

Two of the twenty-one animals fed indole-3 acetic acid produced thirteen offspring, of whom eleven were born dead; the remaining two offspring were grossly abnormal and died within a few hours. One of the rat mothers in this group also died in childbirth, a very unusual occurrence.

No offspring were born to the eighteen pregnant rats given tryptamine; all the fetuses were absorbed. In contrast, the animals on methionine sulfoxide had normal offspring much in the same manner as the control group.

In this first study, because of the high absorption of fetuses by the pregnant rat mothers and the gross abnormalities of the few offspring that were born, it was thought that the initial dosage of the antimetabolites was too high. The dosages that were given were 5 mg./100 gm. diet for oxythiamine, 10 mg./100 gm. diet for methionine sulfoxide, 5 mg./100 gm. diet isonicotinic hydrazide, 10 mg./100 gm. diet for indole-3 acetic acid, and 10 mg./100 gm. diet for tryptamine. Consequently, the above experiments were repeated first with the dosages reduced to one half and then to one tenth with similar results occurring. This time only five animals were used in each deficiency group (oxythiamine, isonicotinic hydrazide, indole-3 acetic acid and tryptamine). No offspring were obtained from any group. These results indicate the extreme sensitivity of the embryo to the effects of agents that interfere with neural enzyme systems during the first trimester of pregnancy. The analogy in the human would be stillbirths.

Because of the extreme degree of pathology occurring as a consequence of the antimetabolite

interfering with general embryonic development, a second set of studies was initiated using the same antagonists in the original dosage, but now being fed to the pregnant rat mothers considerably later in the pregnancy, that is, from the eleventh to the eighteenth day. This study is currently in process. The results to date are as follows: The rat litters are only about half the size of the controls for those rat mothers fed oxythiamine, isonicotinic hydrazide, indole-3 acetic acid and tryptamine. These rat babies are not grossly deformed, however. They are smaller than those born to parents on normal diets; they show no aggressiveness in their behavior; their hair is not as well distributed as in their fellow normal controls, and they are decidedly more anxious and more difficult to catch. Each batch of such offspring, as they are maturing, is being studied in maze learning and through various psychological tests to determine their ability to perform and behave.

The results are just beginning to be accumulated as these babies grow older, so we can only say tentatively, that the findings are suggestive of significant retardation. Further observations are necessary for proof. In addition to the study of their behavior, these offspring are also being studied pathologically in terms of their neural development, and biochemically in terms of the enzyme systems of the central nervous system which may be involved.

Discussion

The experiments to date, which are preliminary in nature, have given us experience in the effect of antagonists on enzyme systems important in neural development. By this technique, one may interfere with a known neural enzyme system, study its effects on the developing organism and compare the results with what may be occurring in nature by chance. One may produce an acute dietary deficiency by blocking an essential vitamin during the gestation period of the mother, or for that matter, one may block any known neural enzyme system. In this way one may simulate that which might be occurring spontaneously in nature. There are many naturally occurring antimetabolites which may be taken in excess amounts during the vagaries of appetite of the mother during her pregnancy to the harm of the growing offspring. Of the antimetabolites under study we know that there are naturally occurring substances antagonistic to the vitamin thiamine, and indole-3 acetic acid is a naturally occurring plant hormone. By this same technique we are able to study the effect of drugs which are given in treating some disease processes; in this instance, isonicotinic hydrazide used in treating tuberculosis. Moreover, by this technique we can study substances that may be produced within the organism itself and absorbed as a foreign substance such as tryptamine in the colon which is formed by bacterial action.

Of considerable importance is that the amount of any of these substances given to adult animals was so small as to cause no detectable physiological or psychological effects, whatsoever. However, the effects on the embryos, in their development, were devastating.

Continuation of this area of research, then, has for its objective the elucidation of factors which interfere with the normal development of the neural system of the embryo and result in pathological states clinically characterized as mental retardation, cerebral palsy, or convulsive disorder. We have a long way to go but the road looks open and the highway offers excitement en route.

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951 E. Lafayette
Detroit 7, Michigan

Preventive Medicine and Industry

By O. T. Mallery, Jr., M.D.
Wausau, Wisconsin

TODAY almost every physician with the possible exception of a few specialists is directly or indirectly concerned with industrial health. Already there are 25,000 doctors who have some official medical tie-in with industry, part time, full time, or on call." So writes Dwight H. Murray, M.D., president of the American Medical Association, in the March 9 issue of *The Journal of the American Medical Association.* The private practitioner has a new role in medicine, that of providing medical guidance for both management and labor in the prevention of illness and the protection of health. I emphasize the private practitioner, for it is the doctor in the community who is called on increasingly by industry to direct, on a part-time basis, the health programs in the smaller and medium-sized plants. It is in plants of this size that the vast majority of the employed people of this country are at work.

A physician does not have to be an industrial medical specialist to provide medical guidance to the smaller plants on a part-time basis. In fact, there never would be enough so-called specialists to go around, and further, the practitioner is himself eminently qualified through his personal and professional contacts with his community, to take part in and to assist industry in his community and the worker to a better total health. Such aims are contained in preventive medicine, which brings to the adult and industrially employed population the medical and health knowledge of our profession. Preventive medicine has many logical outlets of active expression within the industrial work place.

Of all the tools used in industry, man himself is the most important one. That this is an old idea need only be documented by the following quotations from Hippocrates: "And the physician will manage the cure best who has foreseen what is to happen from the present state of matters." In another statement from the father of medicine, "The physician must not only be prepared to do what is right himself, but also to make the patient, the attendants, and the externals co-operate." In terms of preventive medicine in industry, he is saying that the physician not only has to consider the employe as an individual, but the surroundings in which he works, his machines, stress, and his fellow men. The physician is challenged to bring about a co-operation or better adaptation of the environment, the occupation and the physical capacities of the individual employe.

Preplacement Examinations

The preplacement examination is referred to as the keystone of an industrial health program for it is based on the principle of preventive medicine. The physician who is called on to render medical service, guidance, and advice to industry on a part-time or on-call basis can start here. The preemployment medical examination of the employe is designed to permit assignment of work compatible with the physical, mental and emotional fitness of individuals, and to help maintain their safe and healthful employment. This requires of the examining physician that he be personally acquainted with the operational methods of the shop and industry itself, the occupational environment, the physical and mental demands of the job, the nature of exposures to substances or conditions which may affect health. The physician so informed is in a better position to assist management to match the physical abilities of a prospective employe with job requirements. The exact medical form that the examination takes will vary in accordance with the specific requirements demanded of the employe and as may be modified by environmental conditions.

The Council on Industrial Health of the American Medical Association states that preplacement examinations have the express purpose of determining and recording the physical condition and assignment to a suitable job. In addition, the examining physician should acquaint the examinee with his medical findings and advice him or his

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Dr. Mallery is Medical Director of the Employers Mutuals of Wausau, Wausau, Wisconsin.

personal physician (with the applicant's approval) of health conditions needing medical attention. Here, then, are two practical steps in the practice of preventive medicine in industry: (1) the matching of a man's physical capacities, mental and emotional fitness with specific environmental and job requirements, and (2) the referring of the employe to medical care early to combat and moderate potential or actual disability or illness.

In-Plant Working Conditions

To the employe already on the job, the practitioner can now give attention to the prevention of disease and injury through medical supervision of the work place, materials, and processes to the end that he may recommend appropriate protection of employes against conditions actually or potentially harmful. Potential health hazards may arise from materials, chemical or physical, or from environmental conditions such as illumination, temperature, vibrations or noise. It is not proposed that the physician include engineering control as part of his activities, or assume to be any one of a variety of specialists in toxicology or radiation, for instance. However, he will be stimulated to look for specific signs and symptoms once aware that a potential health problem exists. Knowing what to look for medically is a long step forward in the prevention of illness and toward the maintenance of health.

It must be emphasized that although potentially hazardous operations may be in progress,, this is not in itself sufficient cause to assume that injury will occur or that evident existing disability is solely due to this cause, for example. Rather, the physician will be placed in a position to appreciate and recommend to management such medical or other controls as will enable them to keep ahead of trouble, and to arrive at appropriate medical examining techniques.

Periodic Examinations

Medical records of employes are a useful tool in the practice of preventive medicine. Such base line studies as the chest film, blood pressure reading, urinalysis, and general physical findings all afford the physician a measure from which to gauge deviations from health. Periodic examinations of employes are an important and a significant contribution to health maintenance and are receiving ever-increasing attention by the medical profession. What should be the frequency of a periodic examination? This can be arrived at from two points of view. First, is the employe exposed to processes or materials which are potentially hazardous to his health? If the answer is yes, specialized examinations on a periodic basis weekly, monthly, yearly are designed to detect early signs and to prevent potential damage to the individual. Such periodic examinations are actually a medical control measure, and a check on the various other environmental or engineering techniques employed. In certain employes, specific physical requirements must be maintained if they are to continue in their job category. Aircraft pilots, truck drivers, crane operators are examples. Physical performance and mental and emotional stability may become altered and lead to recommendation of job reassignment on a temporary or permanent basis. Special types of examinations are designed to meet particular job requirements. These may be of a screening nature in some cases and extensive in others.

Another point of view used for deciding on the timing of the periodic examination relates to what medical science and the practicing physician can accomplish in health maintenance through early diagnosis and treatment of disability and illness of degenerative and non-occupational disorder. Calendar age is the major criterion and it is generally felt that starting between the ages of forty and forty-five, an annual or biennial medical examination will yield sufficient medical findings to warrant the time and costs.

Preventive medicine starts in infancy and carries through childhood into school health programs. In the adult population, the preventive program is under direction of the practicing physician in his office, and in his contacts with industry and the working population. Is it realistic to assume that the physician on an on-call or on a part-time basis to small industry can himself perform periodic examinations on the work force? In some cases undoubtedly there is time available on a scheduled basis. In other plants, it is physically impossble, professionally unsound or otherwise not proper. However, it is the physician's place as a consultant and as a medical man to advise management based on the age of the employed group, the character of the work performed, and potential health hazard present as to what type of medical program of a periodic nature is of advantage to the employe, to the industry, and to the community as a whole. If the physician, working with

industry in this advisory capacity, can bring about a closer and more frequent relationship between the workers in the plant and the physicians in practice in the community, the health interests of all concerned will have benefited.

Summary

The private practitioner on call or part-time with industry has just as much responsibility for the prevention of illness and accident arising from the environment or the physical limitations of the employe as he has in the treatment of accident and illness arising out of occupation. Preventive medicine as relates to industry is very close to the professional interests and special training of the physician. It is the physician who is best qualified to relate the physical characteristics of an employe with his mental and emotional health to the demands of the job. Certainly job assignment, which is the responsibility of management, can be done more efficiently with the guidance and counsel of the medical man. The equipment, the machinery, and the materials with which the employe will be intimately associated are of interest to the physician for he must determine how each of these factors influences the physical and mental capacities, or limitations, of the employe. How will environmental factors (including such simple matters as the level of illumination, temperature, humidity, dust, presence of noxious fumes, or other agents) affect the physical performance and general well-being of the individual?

The physician of today is called on to play an important role in preventive medicine in industry because he is qualified through his knowledge of man as a biological being. The physical and emotional capabilities of man are affected by the machinery and equipment he is asked to operate, and are influenced by the environment with its physical and chemical attributes. For each variable, well-defined zones for comfort and health can be determined and ranges set where the efficiency of human performance and health is maintained.

Physicians will find that preventive medicine is no less interesting than curative medicine, for indeed the experience of curative medicine leads directly to experience in prevention of occupational disease and accident. Doctor Dwight H. Murray states, "I can guarantee that work in prevention of illness will be as satisfying as diagnosis and treatment of disease and injury. In this present age of prevention and protection of health, I see occupational health as a field of most exciting possibilities."

DIAGNOSTIC RADIATION

(Continued from Page 360)

at the present time is far greater than the hazards of leukemia. The current publicity concerning radiation hazards has neglected to mention the considerable benefit to many patients from such studies.

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Early Diagnosis of Disease at the Place of Work

By Kieffer Davis, M.D.
Bartlesville, Oklahoma

IT IS WELL to recognize that in the industrialized world of today, maintenance plays quite an important part in our very existence. We have known for many years that the machinery of industry must be inspected at intervals and its worn parts replaced if business is to continue without unnecessary and unexpected periods of interruption. Generally speaking, we know, too, that in many instances the finer the mechanism, the more delicate the tool, the more maintenance it may require. These problems have been accepted by industry, as has been evidenced by the inclusion of machine maintenance expenses in the general cost of production.

What about the operator of the machine? Is he not as important as the machine? Synonymous with "the right machine for the right job" is "the right man for the right job." Presently, one is dependent upon the other. In spite of our technological advances and modernization of instruments and procedures of manufacture, it still remains that in many instances outputs are in accordance with man's ability. A machine capable of 100 per cent capacity run by a man of only 50 per cent capability might conceivably produce at a rate of only 50 per cent of its potential.

Consequently, it has been good practice for many years to employ an individual in industry at a job that is commensurate with his abilities—one that he can do well with safety to life and property. Proper placement at work means well adjusted and contented employes; it means better attitudes toward the company with resulting greater freedom from accident proneness; it means a minimum of unavoidable absence caused by emotional problems of the job; it means a happier home and family and a more energetic community citizen; and for the employer, it means a more stable working force capable of greater production at lower costs.

Proper placement of the new employe, however, is only the first step toward insuring good health on the job, as well as away from the job. Continuation of this desired situation can be achieved best through a program of periodic re-examination and re-evaluation of the worker, with subsequent maintenance of the individual at work he can do best.

Today, more than ever before, industry is cognizant of having employes present on the job and working satisfactorily. I am not going to take the time to delve to any extent into the benefits this will accrue to both employer and employe—to the majority of you these are apparent. In approaching this objective many industries, both large and small, have instituted as a part of their medical program a practice of making it possible for each employee to have an interval "health inventory." The purpose of such a procedure is:

1. Discover disease in its incipient or remedial stages.
2. Determine any marked deviation from previously established health status.
3. Determine mental and physical compatibility of individual to his job.
4. Determine if health disorders found at a previous examination have been corrected.
5. Determine if the ordinary aging processes are being accelerated, and if so, why.
6. Health education—in general, and on an individualized basis. Certainly this is a very important part of our Medical Department activity in Phillips Petroleum Company.

In working areas where there exists a full-time industrial medical set-up or outside medical consultants versed in the importance of the periodic health examination, this phase of a company medical program presents no particular problem. At Phillips (and I am sure in other petroleum and allied industries such as drilling operations, booster stations along pipe lines, and seismograph camps, where the employees are few in number and at times migratory) employees may be fifty

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Dr. Davis is Medical Director of the Phillips Petroleum Company.

miles or more from any medical facility, let alone an office set up to comprehensively and effectively do this type of examination work. Situations such as these posed many questions—the answers to which, ten years ago, were not readily apparent.

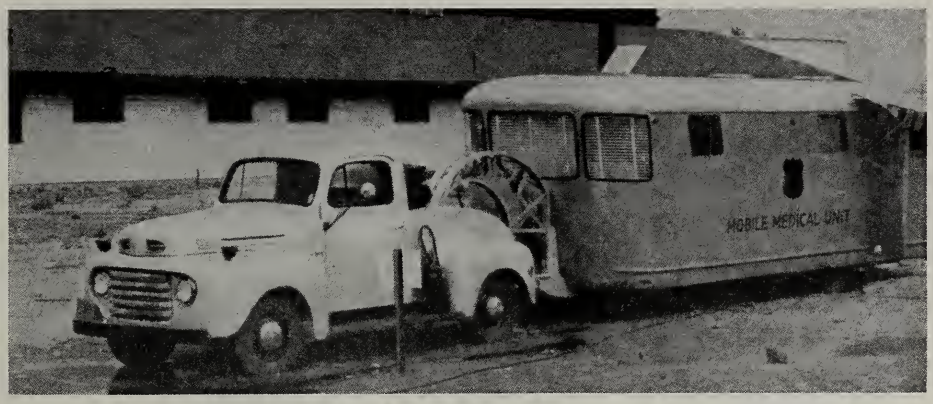


Fig. 1. The first mobile medical unit of Phillips Petroleum Company (January, 1948).

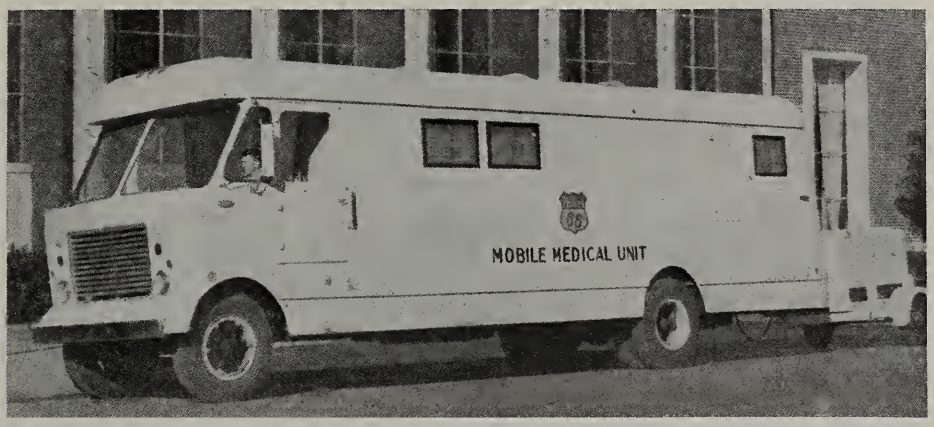


Fig. 2. Buss-type mobile medical unit, Phillips Petroleum Company (1953).

At that time, the only realistic solution to this seemingly insurmountable problem was a medical examination clinic on wheels that could be used as a medium in reaching these groups of employes working in areas where this type of medical service was not available. Subsequently, the first mobile medical unit set up by our Medical Department in Phillips Petroleum Company was put into service in January, 1948, and this unit (Fig. 1) served its intended purpose well during our early experimental years in the interval or periodic examination aspect of our company medical program. Its staff consisted of a full-time physician, a registered nurse, and a medical technologist. It might be of interest to note here that similar programs were organized at about the same time in a like manner by Dr. V. C. Baird, Medical Director of Humble Oil Company and Dr. Thomas Mitchell, Medical Director of Carter Oil Company.[1]

Four years ago, this medical trailer-type clinic was replaced by a more modern bus-type unit. This unit (Fig. 2) is considerably more rugged in construction; however, with the present-day automotive improvements, it is relatively easy to handle. Clearance is enough to allow it to move with ease over roads and lanes that are off the beaten path. The bus itself is 33½ feet long and is divided into two separate sections: (1) the cab, and (2) the clinic area (Fig. 3). The clinic portion, which covers 193 square feet, is further divided into three compartments. The rear one is the doctor's office for general examination work and counseling; the center room is the laboratory and developing room; and the forward room contains the x-ray, electrocardiograph, visual acuity and audiometric testing equipment, refrigerator, scales, and general office set-up for the technologist (Figs. 4 and 5). The unit is

equipped with a common system for heating and air conditioning. A 300-gallon fresh water tank, with connected water heater, makes it possible to have hot and cold running water in the back and middle rooms. A 30 kw. generator, trailed behind the bus in transit, furnishes electricity for all the electrical appliances in the unit, including the 200 ma. x-ray machine. The over-all length of the unit, including the trailing generator, is just under 45 feet, the length limit of such motor vehicles and trailers established in many states by the Interstate Commerce Commission. An automatic auxiliary 3 kw. power plant in the front cab furnishes electricity for the refrigerator and lights when the larger generator is not in operation.

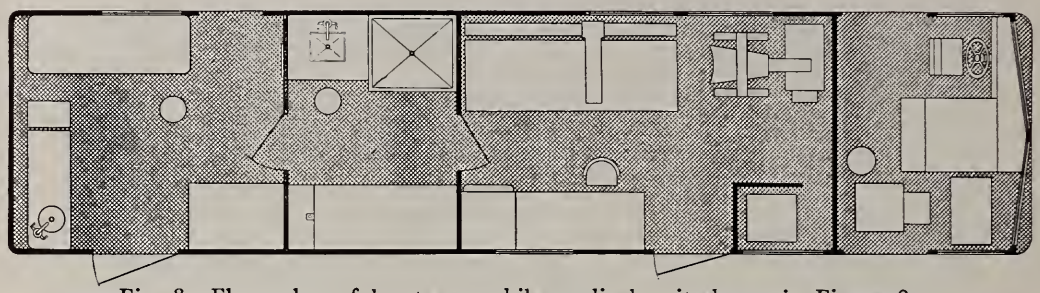


Fig. 3. Floor plan of bus-type mobile medical unit shown in Figure 2.

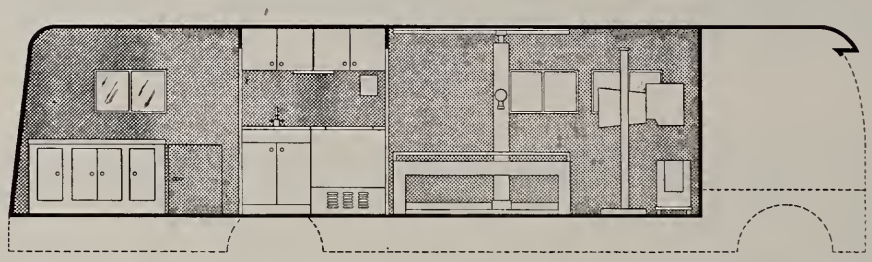


Fig. 4. Left inside view of bus-type mobile medical unit shown in Figure 2.

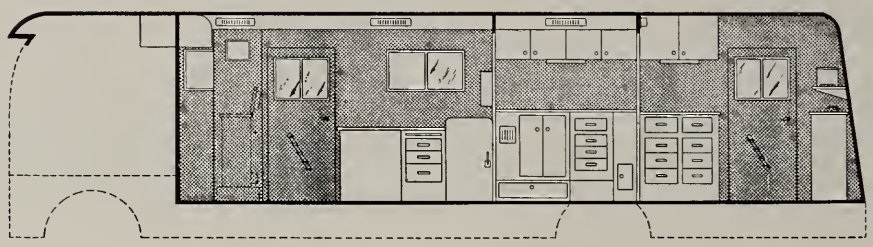


Fig. 5. Right inside view of bus-type mobile medical unit shown in Figure 2.

Procedure

A careful itinerary is always worked out so that all installations due for a visit know in advance when to expect the mobile unit. This enables each department to schedule its employes who desire the examination without hardship and interruption of daily routine. Figure 6 shows the states visited in one complete tour of the unit, beginning in 1955 and ending in February, 1957. This circuit included visits to Phillips installations in twenty-one states, with a total of 7,732 employes examined.

Every examination is completely voluntary and includes a thorough physical and a careful medical history, allowing for time, if needed, for ventilation of emotional problems. The laboratory work includes urinalysis, blood type and Rh-factor, hemoglobin (when indicated), a 4 x 5 photo fluoroscopic chest x-ray, audiogram, and an electrocardiogram on all employes fifty years of age or older. The electrocardiogram is also done on others under age fifty if for any reason the examiner may suspect heart disease. Other x-rays are made of backs, extremities, et cetera, when deemed necessary by the examiner. There is no set time limit for each employe's examination. With younger people it may be possible to com-

plete the review in fifteen to twenty minutes; others may require as long as an hour. In each instance the physician always takes sufficient time to unhurriedly discuss his medical findings and

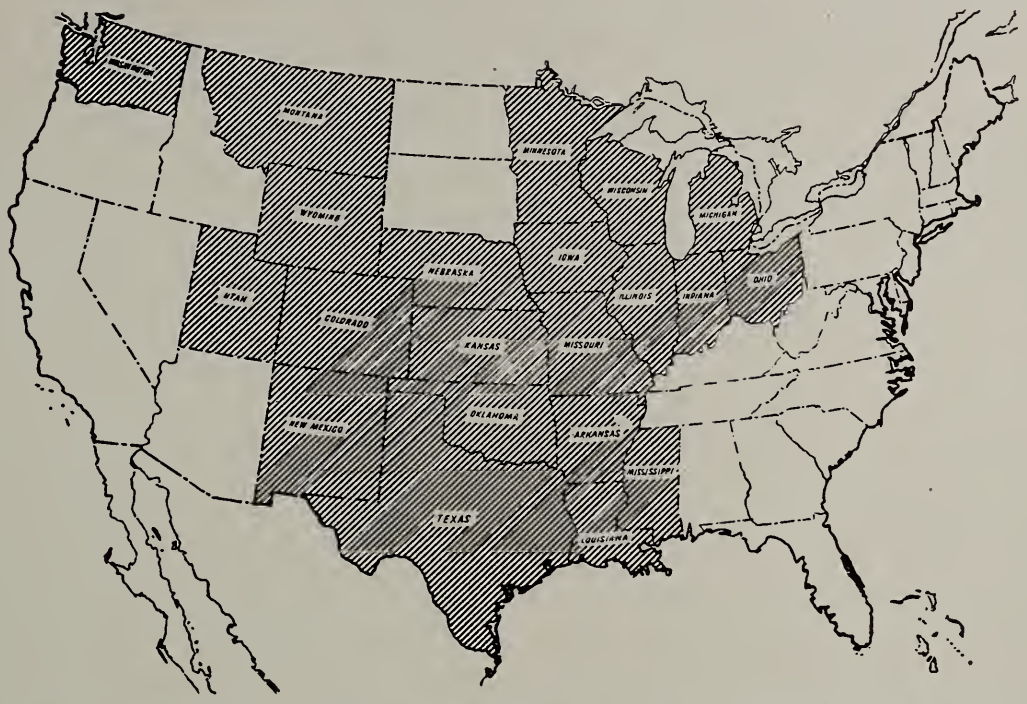


Fig. 6. States covered during periodic examination program of Phillips Petroleum Company, 1955 through February, 1957. Total employes examined—7,732.

advise the employe in regard to any health problem found. If the entities discovered warrant, the employe is advised to consult his personal physician for further study and necessary treatment.

A final review and study of each case is made by an internist in the Company's central medical office in Bartlesville, Oklahoma, and subsequently an individual narrative report is sent to each employe examined in the mobile unit. Included in such a report are positive medical findings, their significance, and recommendations—when indicated—urging the employe to have his case followed up and cared for by his own family doctor. At the same time, if it has not already been recorded on the individual's medical form by the examining physician, the name and address of the family doctor is requested, as well as permission to send to the family doctor a copy of any pertinent portion of the respective employe's company medical report. On the average, sixteen to seventeen examinations are completed each day.

Occasionally, health problems are discovered that warrant modification of an employe's work or a decided change in his job classification. When this occurs, and after the family physician has confirmed the diagnosis, the situation is thoroughly reviewed with the employe involved and his consent obtained before any recommendations are made to his department. The primary purpose is, of course, to keep him working while the family physician is curing his malady, at a job that is safe to himself and others. Transfers effected in this manner may be temporary or permanent, depending on whether or not the medical problem is remedial. Once the employe understands all the implications he is willing, almost without exception, for his department and the Medical Department to discuss the job changes indicated for the protection of all. Proper liaison is maintained with the private physician so that, when necessary, he will be able to help us move the employe involved to a suitable job, and also to let us know when the employe is whole again. After health problems have been corrected and the employe returns to his normal health status, he is returned to his usual job.

No definitive treatment is extended through this program. The cost of follow-up medical care for personal health problems detected through

TABLE I. SUMMARY OF PHYSICAL FINDINGS OF EMPLOYES EXAMINED IN MOBILE UNIT—1956

	New	*Old*	*Total*
Alcoholics	1	2	3
Allergy			
Asthma		13	13
Hay Fever		18	18
Other	2	7	9
Total	2	38	40
Back	4	68	72
Blood Abnormality			
Anemia	5	3	8
Cardiovascular			
High Blood Pressure	66	72	138
Valvular Disease	3	5	8
Coronary Disease	18	55	73
Other	4	5	9
Total	91	137	228
Cysts			
Pilonidal	1	2	3
Other		1	1
Total	1	3	4
Dermatitis			
Industrial (Suspected)	6	1	7
Other	28	43	71
Total	34	44	78
Ears			
Structural Defects	6	23	29
Hearing Defect	2	43	45
Total	8	66	74
Eyes			
Structural Defects	10	24	34
Vision	202	35	237
Other		2	2
Total	212	61	273
Gallbladder	2	20	22
Gastrointestinal		64	64
Genitourinary			
Kidney		7	7
Prostate	10	7	17
Urine	2		2
Other	3	5	8
Total	15	19	34
Glandular	2	1	3
Hernia			
Non-job-connected	25	25	50
Job Dissatisfaction (overt)		2	2
Joints			
Arthritis	2	20	22
Non-Inflammatory Derangement		16	16
Other	1	6	7
Total	3	42	45
Liver		5	5
Lungs			
TBC	1	1	2
Other	23	9	32
Total	24	10	34
Metabolic			
Diabetes	2	11	13
Other		6	6
Total	2	17	19
Migraine	1	8	9
Miscellaneous	9	15	24
Musculoskeletal	1	28	29
Nerve Disorders			
Neurologic	1	14	15
Psychiatric	0	0	0
Emotional Disturbance	1	2	3
Multiple Sclerosis	1	1	2
Total	3	17	20
Nose	2	9	11
Obesity			
With Associated Disease	19	77	96
Without Disease	97	151	248
Total	116	228	344
Rectal			
Hemorrhoids	27	21	48
Other	2	2	4
Total	29	23	52
Sinus		4	4
Syphilis			
Treated (old cases)		3	3
New (Status being Determined)	1		1
Total	1	3	4
Teeth & Gums	52	30	82
Throat	2	2	4
Tumors			
Skin	1	1	2
Mucous Membranes	1	1	2
Other	5	4	9
Total	7	6	13
Underweight	4	15	19
Varicocele	4	1	5
Vascular			
Buerger's Disease		2	2
Arteriosclerosis		1	1
Varicosities	22	18	40
Other		3	3
Total	22	24	46
Grand Totals	684	1040	1724

this program is borne by the employee. Of course, defects found that are job-connected are handled in accordance with the compensation regulations.

Results

In the beginning, as you can imagine, many of our older people regarded this program as a part of a company spying system, and even a method by which some of them could be eliminated from their jobs. Today we rarely encounter such feeling. The attitude of most of the remaining skeptics has shifted from either suspicion or mild curiosity to one of enthusiasm for the over-all program of the mobile unit. This is evidenced by the fact that in many areas we now are having 100 per cent participation.

The voluntary co-operation and enthusiasm of departments and employes has resulted in discovery of many potentially serious medical problems and even more minor, but troublesome ones. Table I shows the health findings resulting from the 1956 tour of the mobile unit. In addition, this table shows health problems discovered at the time of the previous examination. Most have been corrected or improved sufficiently to permit the employe to continue safely in his usual job. Even the more serious medical problems have been helped by aiding the employe to get proper

medical care, with the result that he remains productive in some capacity rather than a total loss for lack of proper medical evaluation in relation to his job.

Table II is interesting in that it gives comparable data on essentially the same group of people in the same geographic areas, for the years 1954 and 1956. Some of the highlights of this comparison are:

1. Significantly fewer cases of high blood pressure—almost half of these being "new" cases.
2. Significantly fewer obese personnel. (Obesity is arbitrarily defined as 20 or more pounds over upper normal height and build.)
3. A substantial number of hernias found in 1954 had been repaired when employes were seen again in 1956. The same was true with respect to hemorrhoids, dental and visual (refractive) problems.
4. A review of "tumor" conditions found in 1954 revealed that several potentially cancerous growths were removed as a result of the visit.
5. Coronary disease, as might be expected, remained much the same. Only 9½ per cent of the coronary cases seen in 1956 needed some job restriction. It is also of interest that of seventy-three coronary cases seen in 1956 in the Mobile Unit only 9 per cent experienced their first attack at work and the majority of these were not under stress or strain at the time.

Fifty-seven per cent of the significant cases of coronary disease were found initially as the result of electrocardiograms made in the unit, there being no other evidence of trouble. It is fully recognized by this department that the electrocardiogram can be a double-edged sword. No case was tagged as a "coronary" unless the electrocardiogram was interpreted as being unequivocally abnormal when compared with a previous "normal." Employes notified of abnormal findings were treated in a *non-alarmist manner,* and data was sent to the personal physician with the employe's permission. This has often permitted early definitive care by the personal physician with prevention of more serious trouble and maintenance of serviceably good health.

TABLE II. MEDICAL MOBILE UNIT

	1954		*1956*
Total Number Examined	3,796		3,936
High Blood Pressure	158	New	66
		Old	72
		Total	138
Coronary Disease	61	New	18
		Old	55
		Total	73
Dermatitis			
Non-Industrial	43	New	28
		Old	43
		Total	71
Suspected Industrial	6	New	6
		Old	1
		Total	7
Ears			
Hearing Loss	41	New	2
		Old	43
		Total	45
Eyes (Vision)	118	New	202
		Old	35
		Total	237
Hernias (non-job-connected)	42	New	25
		Old	25
		Total	50
Lungs	37	New	24
		Old	10
		Total	34
Obesity With Associated Disease	140		96
Without Associated Disease	265		248
Total	405		344
Hemorrhoids	70	New	27
		Old	21
		Total	48
Teeth	76	New	52
		Old	30
		Total	82

Summary

Phillips Petroleum Company has successfully used the mobile medical unit for the past nine years in the program of early diagnosis of disease at the place of work. While the program may be considered as one of case finding in the individual, it still remains that, as a rule, the earlier a diagnosis is made, the more amenable the disease is to cure or control. That this program is needed is evidenced by the number of medical problems detected in individuals who were working every day and seemingly in good health. The great majority of these conditions were discovered in their incipiency and subsequent medical treatment was effective without unavoidable absenteeism. As one might expect, however, a few severe cases were found which warranted loss of time from work for proper and adequate care. It might be of interest to note that on each successive tour of the unit, considerably fewer severe cases were uncovered.

In this field health program, as in all of our company medical activities, medical ethics are closely adhered to. The doctor-patient relationship must be maintained, employe confidences must be respected, if this work is to serve its intended purpose.

In the same manner, the prerogatives of the family physician are to be preserved. As a part of our company health program this preventive

(Continued on Page 380)

Today's Challenge in Public Health

By John D. Porterfield, M.D.
Washington, D. C.

ONE of the most urgent challenges in public health today, I believe, is to build a bridge between the local public health agency and the office of the practicing physician.

Within this general challenge, there are, of course, numerous and varied items. The responses of public health personnel will therefore be varied, and sometimes may seem far removed from the physician's office. The specific challenges and responses, however, are pointed in the direction of the clinician. The reason is that the problems of prevention today, whether they have their origin in new environmental hazards or in hereditary or constitutional disorders, cannot be solved without the active participation of practicing physicians.

To illustrate, fifty years ago the prevention of typhoid fever and other gastrointestinal infections constituted a major challenge to public health. Scientific research and technology had made it clear that prevention at the source could be achieved by ensuring safe water and milk supplies and proper sewage disposal. The co-operation of practicing physicians with public health officials was desirable, and in many instances it was a determining factor in persuading communities to take action, but it was not essential. In urban communities, public health officials had only to convince a relatively few business and political leaders that the proposed sanitation facilities would achieve the desired results. Control measures could be applied without any action on the part of physicians, or, indeed, of the individuals and families who benefited by community sanitation.

Today's problems are of a different order. The control of chronic diseases, the prevention of deaths or severe disabilities from accidents or from hereditary disorders, all involve the personal concern and action of practicing physicians. For here, no "mass" methods are available. The close relationship of physician and patient is the key to modern prevention. Far more than in the past, the application of preventive methods to infectious diseases also is achieved primarily by the practicing physician. We see this in the nationwide action of physicians in the most recent vaccination programs for paralytic poliomyelitis and Asian influenza.

Even in the control of new environmental hazards, the individual action of the practicing physician is essential to success. The control of radiation exposure, for example, cannot be achieved by the decisions of a few individuals at national, state, or local levels. One of the major sources of exposure is the medical use of radioactivity. If diagnostic and therapeutic uses of radiation are to be applied with maximum safety for patients, the desired result will be achieved only through the personal concern and action of every practicing physician in the country, supported by the joint action of medical and public health groups.

How, then, can the public health physician go about meeting his basic challenge to bring the practicing physician into the solving of today's problems of prevention? Most of us in public health practice have received a great deal of advice on this question during the past few years. As a rule, the advice goes something like this: "Public health agencies should co-operate with local medical societies in the development of community programs, especially in new fields." This worthy admonition may be followed by mention of a series of "fields" in which co-operation should be sought, with description of a few specific activities which have been initiated in some communities.

Still, neither the general advice to co-operate with the medical society nor the expressed need for public health action in new fields seems adequate as a bridgehead from which a public health physician might throw a span between himself and the practicing physician. We in public health must have something to offer that will stimulate the practitioner's interest in our organization as a real and present help in the solution of medical problems he meets daily. We do not have to convince

Address to the Section on Public Health and Preventive Medicine, Annual Session of the Michigan State Medical Society, Grand Rapids, Michigan, September 26, 1957.

Dr. Porterfield is Deputy Surgeon General, U. S. Public Health Service, Department of Health, Education, and Welfare.

him that chronic diseases, mental and neurological disorders, accidents, diseases of pregnancy and the perinatal state are major causes of illness and death. We do not have to convince him that care of long-term patients, whatever their age, is a perennial problem for himself, his patients and his community.

We do have to convince him that public health agencies are in a position to help solve these problems now, without jeopardizing the practitioner's stake in the health supervision and medical care of individual patients. And we have to convince him that public health agencies are capable of developing new community services which will prove as valuable to medical practice as older programs of communicable disease control and sanitation, without invading the private practice of medicine.

For the past quarter century, there has been a strong—though by no means universal and constant—conviction on the part of practicing physicians and medical groups that any public health action directed toward personal services would be an opening wedge for the socialization of medicine. It is no secret that repeated efforts in the late 1930's and immediately after World War II for the establishment of national compulsory health insurance served to strengthen this opinion and to extend it farther in medical circles. During the same period, the United States Congress and state legislatures have repeatedly broadened the responsibilities of public health and related agencies and have added many new health programs. All this has happened with the support of medical groups, and there has been no socialization of medicine. On the contrary, while this general strengthening of health resources was occurring, voluntary insurance plans have grown in volume and scope and many large industrial groups have developed comprehensive medical programs for their members. As a result, the former impetus toward a universal national health insurance plan has waned.

However, we in public health cannot disregard the fact that medical opinion may have had an influential relationship with the financial strictures under which public health programs—especially in local communities—have operated during the past ten or fifteen years. Nor can we disregard the fact that these same financial strictures have helped to buttress another medical conviction that public health physicians and their staffs have competencies only in the traditional fields of communicable disease control and sanitation.

The physician's fears of socialized medicine and his opinion that public health can play only a limited role in solving contemporary medical problems comprise only two of many factors contributing to the handicaps under which public health physicians operate. But they are factors and it is up to us to take the initiative in dissipating the fears and changing the opinions.

Fortunately, the wall of distrust and misunderstanding is beginning to crumble. There is better rapport between national, medical and public health groups today than we have known for a decade. More state and local medical societies and health departments are venturing together into new fields.

You would be interested, for example, in a little leaflet recently issued by the Medical Society of the State of Pennsylvania in co-operation with the Mellon Educational and Scientific Trust. It is entitled "A 'New Tool' for Physicians," and the "new tool" is a county health department. The leaflet sets forth some of the advantages a physician may derive from a health department, including a list of services "without cost of time or money to the physician." Although the list is predominantly of classic local health functions, it does mention referral of patients with *chronic* illness, and "advice . . . in unusual situations: viz. poison control centers, civil defense emergencies, (and) environmental hazards from air-borne radioactive contamination."

The leaflet ends with this statement by Dr. Elmer G. Shelley, President of the Pennsylvania State Medical Society:

> "The public health physician is a specialist in the field of preventive medical services and public health practices. He and his staff of professional and technical personnel and the practicing physician can advisably integrate their mutual interests and activities to effect better health protection for all the people and their respective communities through preventive measures and services."

This, I contend, is meeting the public health physician more than half way. Similar rapprochements are going on in other parts of the country. But, as a distinguished practicing physician, a member of the Surgeon General's Advisory Committee on Medical Practice Relations, told us recently: "Here and there the old hostilities re-

main; the old fears that public health will take over and treat patients once they get a toe-hold, even in a screening program."

Now human beings have not been notably successful up to date in their ways of dealing with hostility. We still pretty much follow the old instinctual drives toward flight or fight, even though neither response has been permanently or consistently effective in the whole of recorded history. Our world today has shrunk, our own society has become so complex, that flight or fight are less and less successful, less and less possible.

In some relationships, however, we have learned a way to disarm hostility and convert it to friendship and loyal support. Certainly it is the toughest way and the one least acceptable to us proud mortals. It is to turn a critical eye upon ourselves, learn how we may have created hostile feelings in others, and deliberately "cast out the beam" that has distorted our vision of ourselves and of others. Once this is done, we are ready to deal with hostility on a rational basis. Our opponent may not be similarly prepared. Forces entirely beyond our personal control may be the dominant causes of his hostility. Yet we must take this step of self evaluation, otherwise we will never discern the roots of hostility, the ways we have fostered their growth wittingly or unwittingly, and the next steps we must take to pluck them out.

It must be admitted that fears and limited views are about as widespread in public health as in medical practice circles. If the practicing physician fears "socialized medicine," the public health physician fears the absorption of his preventive programs by medical groups. If the practicing physician still thinks of the "health officer" as a broken-down political hack, scarcely capable of the paper-pushing and nuisance-abatement chores which seem to be his only activities, the public health physician thinks of the general practitioner as an opinionated codger still practicing "horse-and-buggy medicine," who depends on the odds rather than the laboratory to guide his diagnoses, on the detail man of some pharmaceutical company to tell him what new miracle drugs to prescribe.

In every such case, "t'ain't necessarily so." As members of the medical profession, both practicing and public health physicians must guard against such stereotypic views of their colleagues. In public health especially, we must develop a much keener perception of the modern practitioner's competence, his wider knowledge, and his daily problems.

To that end, I would suggest that public health physicians make it the first order of business to possess an intimate knowledge of the climate of medical opinion and practice in their communities. The medical society and other professional groups provide the channels of contact and are, of course, important focal points for joint planning and program development. But I am thinking of a more personal acquaintance.

We in public health should be able to converse with a substantial proportion of our medical communities as freely as with our public health colleagues. In such "feet-on-the-desk" relationships, we can learn far more about chronic disease control and care of the aging, for example, than by reading a paper on screening programs at a society meeting or by presenting the committee on public health and preventive medicine with a preconceived plan for the improvement of nursing homes.

We are supposed to know all about chronic disease control and health of the aging, you may say. Public health physicians do know a great deal and have some ideas they would like to see put into action. But all of us need to learn much more, especially what the practicing physicians think of our ideas.

It is just possible, for example, that a substantial proportion of the general practitioners and gynecologists in a community is already routinely applying the cytologic test for cervical cancer. Perhaps they have some problems they would like to have solved in this "new field" before accepting a public health proposal to put on a "community-wide demonstration." Perhaps they have some ideas, quite different from the "demonstration" approach, that may, for all we know, bring about a more productive application of the technique than the "drag-net" approach so dear to the hearts of administrators in official and voluntary health agencies.

In considering the application of other specific public health techniques, we may find that a similar situation prevails in a community. The public health physician must know the extent to which practicing physicians are using a given technique, be it a screening device or a prophylactic treatment. He must anticipate the technical problems inherent in its application—as these problems exist in the community. In connection

with the cytologic test for cervical cancer, what is the extent and quality of pathologic laboratory services in the community, for instance? In connection with rheumatic fever control, is rapid laboratory service available for confirming diagnoses of streptococcal sore throat?

Without such first-hand medical information about the community, the public health physician is likely to waste some of his resources on a needless campaign or to defeat the purposes of a demonstration by failure to solve the technical problems that concern practicing physicians and their patients.

These precautionary remarks are not intended to discourage public health physicians from moving forward into new fields with all due speed. On the contrary, my earnest desire is to encourage every public health physician to strive for increased and more productive activities in local communities.

Many of the "new fields" in which we are moving forward, however, have long been occupied by practicing physicians or have not been touched by health services. The success of new public health activities, especially in local communities, depends very heavily upon the public health physician's enlightened response to medical opinion and upon his wisdom in selecting problems and methods which will command the keen interest and real participation of practicing physicians.

Both groups should recognize that in the past the campaign approach to prevention has predominated in public health action—a result of many factors too numerous and complex to discuss satisfactorily at this hour. In medical practice, the highly individualistic approach—the one-to-one relationship of physician and patient—has predominated. We and our colleagues in private practice know that neither approach alone will suffice to solve today's problems of prevention. Somewhere between the two extremes, public health and practicing physicians must seek and find the methods most likely to produce a high yield in the setting of the particular community. And we must think of the high yield in terms of unknown cases accurately diagnosed and brought under treatment, fewer persons in all age groups who are severely disabled by prolonged illness or accidents, and—ultimately—reduced death rates from the major diseases, and better personal health for all the people.

Perhaps the soundest and most profitable approach to new fields is the one that public health claims as its unique contribution to medical science—epidemiology. Certainly it is an approach that should spark the interest and activity of practicing physicians. Many practitioners are eager to take part in studies that will teach them more about the problems they are facing in the daily line-up of patients. Whether the community is a rural county, or a small town, or a big suburban area, an epidemiologic study of heart disease or atherosclerosis or mental illness may yield important clues to prevention or to more effective management of cases.

Medical interest in epidemiologic research is evidenced by a study the Public Health Service is participating in at the present time. The entire medical profession in six northeastern counties of North Dakota and neighboring areas of Minnesota and Canada have undertaken a year's study of coronary disease. All the practicing physicians have banded together to report and follow up every case that comes to their attention. The origin of the study resulted from earlier statistical studies showing significantly lower death rates from coronary disease in males residing in rural areas. The purpose of the present study is to determine what factors, if any, in this farming country contribute to the lower death rate among farmers.

Through epidemiologic investigations and other experimental studies, public health and practicing physicians can develop new methods suitable for community application. Public health physicians can draw on outside resources for specialized skills and facilities. But whenever possible, they, their staffs, and their medical colleagues should be directly involved in scientific research.

A community health department is the natural field of epidemiologic studies. Through working arrangements with universities and graduate schools of public health, a department can contribute to the training of epidemiologists and at the same time derive the benefits of research activity to its staff and the community at large.

Planning is a primary function of public health organizations. This basic operation, also, can become a major approach to practicing physicians. In fact, Dr. Burney in a recent address gives joint planning by public health and medical groups the highest priority. He stated that:

"It is an inescapable fact that the full application of current and future scientific findings . . . requires facilities and skills—and often financial resources—which

the individual physician and the individual patient cannot themselves provide. Obviously, then, a state or local medical society or a health agency contemplating an attack on chronic disease must find a *modus operandi* with each other. Joint planning by the two organizations is essential before action is taken. As the plan develops, both . . . will want to bring other interested groups into the planning process, for the ultimate action program will require the participation of many groups."

Intimate knowledge of medical opinion and practice in the community, epidemiologic research, joint planning: these three approaches by no means cover the gamut of the public health physician's choices in bridging the gap between this agency and the practicing physician. There is perhaps time to mention one more that actually pervades all of the others: effective communication.

Some of you may have heard complaints that communication, as practiced in health and related organizations, is not as effective as it should be. I have heard some health workers describe this deficiency in much stronger terms. Invariably, the particular break in communication is, justifiably, attributed to top management, division chiefs, supervisors, or officers of co-operating agencies.

Effective communication is a much more complex process than the mere transmission of instructions or information. Paul Pigors of Massachusetts Institute of Technology, a few years ago, told a group of Public Health Service executives:

"A message may mean what it says to you, but . . . everybody who reads it will interpret it as colored by his own background and experience. It may mean an entirely different thing to him, depending on his particular attitudes, his fears, and his particular preoccupations of the moment. So . . . always ask yourself what is likely to speak in people's minds—as a sort of accompanying overtone—besides your own message."

This means, I take it, that the sender of information must give the receiver time to play back the message as *he* interprets it. This sets up communication as a *joint* activity.

Then, too, we have to remember that actions speak louder than words. When top administrators and sub-officials contradict by their actions the fine policies and philosophies they have enunciated, employes and outside colleagues are likely to respond with far less than their maximum abilities and enthusiasm. The citizens in our communities whose co-operation we solicit are likely to respond in the same way.

The key objective of communication is to get an appropriate response. The public health physician who would bring together the output of the health sciences and the outreach of his community for effective services can elicit such responses through effective communication. To do so, he must create an atmosphere of mutual understanding and respect in which he and his entire staff, medical groups, and other community agencies learn to play on the same team.

Every participant is liberated to make his fullest contribution in such an atmosphere. This kind of communication is, indeed, the foundation of teamwork. If the administrator can learn to work with his staff members and his outside colleagues as one of a group, rather than as a top-sergeant, many of his problems will be resolved. The interaction of people thinking and freely expressing themselves in a group generates a force for action —for dynamic performance—such as is too often lacking in over-organized programs. This is a lesson which both public health and medical administrators need urgently to learn — at all levels: national, state, and local.

EARLY DIAGNOSIS OF DISEASE AT THE PLACE OF WORK

(Continued from Page 375)

and diagnostic work is not in competition with the local private doctor when properly handled, but rather is an adjunct to his practice.

Success is dependent upon the willingness of all involved to co-operate—the employe, the union, management, and medicine. One without the others would be lost in this important effort.

This program has filled a real need in Phillips Petroleum Company and it is my opinion that the net result is an employe group that is healthier, happier, and better adjusted; a company that has a greater productive output; and an economic situation that is good for all.

In visiting with Dr. V. C. Baird of Humble Oil Company, and Dr. Thomas Mitchell of Carter Oil Company, I learned that they, too, are enthusiastic about this phase of their company medical programs.[1]

[1]Personal discussion with Dr. Baird and Dr. Mitchell.

Can We Rely on Modern Medicines?

By George P. Larrick
Washington, D. C.

IN ORDER to appreciate fully the magnitude of the subject, it is well to review briefly the development of drug manufacturing. Throughout the ages, man has searched for drugs that will accomplish a specific good, that will have a particular benefit on the body or a curative effect on a specific disease. Periodically, he has found what he is looking for. The Egyptians used opium centuries ago. For 300 years modern man has used Peruvian bark or, more recently, its alkaloid quinine, in the treatment of malaria, and of course digitalis, ergot, and iodine long have been recognized as having specific beneficial effects.

About fifty years ago, when the arsphenamines were found to be specifics for treating syphilis, there came a dream that progress in the chemical laboratory might lead to the age of chemotherapy, an age in which a drug could be tailored to accomplish a specific purpose. When insulin was developed as the specific treatment for diabetes in the early 20's and other glandular products followed, it became apparent that man might make the dream a reality.

The real start of the chemotherapeutic age probably came when a German firm began experimenting to determine the therapeutic effects of some of its synthetic dyestuffs. It discovered that one dye possessed remarkable activity against some of the pathogenic streptococci. This was followed by the rapid development of sulfanilamide and a host of other sulfonamide drugs. The eve of modern drug research was at hand. The medical profession and the drug industry, which had regarded a major discovery in this field in each twenty-five years as very satisfactory progress, realized that it might be possible to achieve new major research discoveries with greater frequency. The drug manufacturing industry intensified its research efforts. It began to extend laboratory experience on drugs directly to large-scale industrial production. This direct transformation of scientific experience to industrial operation which has occurred in this and three or four related fields is probably unique in human history. It has brought problems.

After the commercial marketing of the sulfonamides, there came two tragedies that were to influence drug development in the United States in an unprecedented way.

A small pharmaceutical house, in an effort to achieve greater pharmaceutical elegance, dissolved sulfanilamide in a toxic solvent. The resulting product killed over 100 people. It is likely that the wave of public apprehension that followed was a major factor in the passage of the Federal Food, Drug, and Cosmetic Act in 1938, with its strict controls over the marketing of new drugs. The new-drug section of this law, which I will discuss in more detail later, was one of several factors that stimulated manufacturers to accumulate a large body of medical and pharmaceutical knowledge about a new product before marketing it; it stimulated the application of thoroughgoing, carefully designed investigative procedures which have materially increased our knowledge of modes of drug action, and has played a part in stimulating some of the modern advances in drug manufacture.

I do not maintain that drug research would have slumped without this law, nor that without it the drug industry would have abandoned the high ideals that have guided it for decades. But it certainly has had a profound influence in molding the pattern of modern pharmaceutical research.

The second tragedy was World War II.

In 1942, the Japanese moved into the Netherlands East Indies, thus cutting off most of our supply of quinine. Faced with the need of fighting a war in tropical jungles without sufficient quinine to control malaria, the Government and the pharmaceutical industries took extraordinary steps and before the end of the war a synthetic antimalarial drug, quinacrine (first synthesized in Germany in 1930) was being produced in sufficient volume to permit its universal use by troops in the Pacific area. Even more important, quina-

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Mr. Larrick is Commissioner of Food and Drugs, U. S. Department of Health, Education, and Welfare, Washington, D. C.

crine proved to be more effective and less toxic than quinine. Shortly after the close of the war other synthetic antimalarials were developed.

The war brought about the development of penicillin, first reported in 1929 in a paper by Dr. Fleming but virtually lost until the war years when a team of scientists at Oxford University purified the drug, studied its pharmacology in animals, and made the early clinical trials in man. By 1941, Britain enlisted American aid in the production of enough penicillin for adequate clinical studies and ultimately for the allied military needs. There followed the production of penicillin by laborious surface culture methods, then the development of the deep vat fermentation process which permitted large-scale commercial production. From twenty-nine pounds in 1943, the output of the pharmaceutical industry increased until adequate supplies were available for the allied invasion forces one month after D-day in Europe. It is significant to note that the pharmaceutical companies today are producing crystalline antibiotics at an annual rate of nearly 800 tons.

There are a number of other examples of the trend to very rapid development of a pharmaceutical product from laboratory to commercial production. Newer antibiotics, steroid hormone-like compounds, the antihistamines, the anticholinergic agents, and numerous other drugs are examples. One of the fastest developments was that of oxytetracycline, which was in full factory production nine months after the antibiotic was first isolated from a sample of soil. Approximately two-thirds of the ethical pharmaceuticals sold in 1956 were unknown in 1949.

This is fine provided the drugs that are being marketed today are safe and provided they can be relied upon by the physician and the patient. Let us look, then, at the measures being taken to insure the purity and safety of modern drugs.

The pharmaceutical manufacturers deserve a great deal of credit for spending the funds necessary to permit adequate improvements in their manufacturing and control procedures. In about 1900, drugs were manufactured in small batches, frequently in local drug stores, and more often than not with no analytical testing of the finished product. Today, most of them are produced in large quantities under the most rigorous control from the time the raw material enters the plant until the finished package is ready to ship.

It is interesting to compare the drugs in current use and the specifications which they must meet with those on the pharmacist's shelf only thirty years ago. The United States Pharmacopeia X and National Formulary V, which were in effect in 1926, contain largely descriptions of vegetable drugs and inorganic chemicals. In many cases, the tests for identity and methods of assay, when present, were nonspecific and of doubtful accuracy. Synthetic organic drugs and the purified principles of natural products were rare. The U.S.P. X contained specifications for only one tableted material. It did not include encapsulated or injectable drugs.

Today the U.S.P. and N.F. contain specifications not only for the basic drugs used by physicians but also for their dosage forms. Most of the drugs recognized in these compendia are synthesized or represent the purified active ingredients of herbs or animal products. The compendia provide standards to be met by the pharmaceutical manufacturers in the production of drugs and in their fabrication and dosage forms. And the compendia standards, showing as they do what constitutes good manufacturing practice, also exert a very healthy influence on the production of nonofficial drugs. In general, the nonofficial drugs meet the same high standards as official ones.

The role of the Food and Drug Administration in this operation is two-fold. We rely to a great extent upon the manufacturers to tell us what they can and cannot do in the way of meeting improved standards. Many years ago the two largest associations of drug manufacturers established a Combined Contact Committee which studies assay procedures for drugs and recommends tolerances for various drug compounds. Through the work of this Contact Committee and the Revision Committees of the United States Pharmacopeia and the National Formulary, drug standards have been raised continually.

Our own laboratories during the past twenty years have developed accurate, reliable chemical procedures for the evaluation of many drugs that were previously examined by tedious, nonspecific bioassays. Notable advances of this type have been made for some of the vitamins, ergot and ergot alkaloids, estrogenic and androgenic hormones, epinephrine, purified digitalis glycosides, Rauwolfia serpentina, and many of the antibiotics. Our laboratories have pioneered in the applica-

tion of new techniques for the analysis of drugs.

The second big role of the Food and Drug Administration is the administration of the new-drug section of the Food, Drug, and Cosmetic Act. This section requires, in effect, that before a new drug may be marketed for commercial use it must be studied adequately to show that it is safe and the reports of the studies must be submitted to a review by the Food and Drug Administration which, acting for the people, permits a new-drug application to become effective if safety has been established.

We expect each new-drug application to report a sound pharmacological and toxicological study which shows, among other things, the toxic effects of the drug, the margin of safety—that is, the relationship between the effective dose and toxic dose—the manner in which the drug is absorbed and excreted, its irritating or sensitizing properties, and many other types of information needed by scientists to reach a sound conclusion as to the safety of the product for widespread administration to thousands or millions of patients. The new-drug application also contains specifications to be followed by the manufacturer in selecting his raw materials, manufacturing the drug product, and the procedures used in compounding and packaging it to guard against accidents that might harm the consumer.

The advantages of these controls are twofold. In the first place, they require all manufacturing houses desiring to ship new drugs across state lines, to maintain satisfactory manufacturing controls, acceptable quality standards, and to perform reliable pharmacological and clinical testing of new products before marketing them. These, incidentally, are the types of standards that the more reliable drug houses followed even before the new-drug provisions were written into the law. Additionally, as a book published by one of the larger pharmaceutical houses states:

"The law has profited the whole industry to the extent that the public, including the medical profession, now takes for granted the purity and quality of all drugs on the market and their safety when used in accordance with labeled instructions. . . . The new law has also been a factor in bringing about increased co-operation within the pharmaceutical industry directed at improved product standards and controls."

I think we can all conclude that due to the very enlightened pharmaceutical manufacturing industry in this country today and to the safeguards in the new-drug section of the law which the industry upholds, we have in the United States the finest medicines available anywhere in the world and we have a climate that encourages, to the fullest extent, future chemical and clinical research which is discovering and making available new drugs at a rate never before achieved in the history of the world.

The Food, Drug, and Cosmetic Act further safeguards consumers by requiring drugs that are habit forming, and other drugs that cannot be used safely without adequate medical supervision, to be dispensed only upon the authorization of a practitioner licensed by law to administer the drug (the authorization must be in writing, or if oral, must be reduced promptly to writing). This requirement was written into the law a few years ago by the Durham-Humphrey amendment which was sponsored by two pharmacists—Congressman Durham and Senator Humphrey. It is not necessary for me to emphasize to this gathering the importance of this requirement to the public health.

Before closing this discussion I would like to point out some problems closely related to those of drug safety which will be of real interest. We do not have in the Federal Food, Drug, and Cosmetic Act a pretesting provision for chemicals to be added to foods comparable with the new-drug section for drugs. Legislation is pending in the present session of Congress designed to require adequate pretesting by law. We in the Food and Drug Administration favor adequate legislation on this point. We request your study of the matter and your support of adequate legislation. It is appropriate here to quote the report of the Interim Committee on the Social Aspects of Science of the American Association for the Advancement of Science, which was released in December, 1956. The Committee stated with regard to food additives:

"The enormous growth of industry based on organic synthesis coupled with the already mentioned tendency toward rapid exploitation of scientific knowledge has resulted in a great increase in the number of man-made compounds now used in foods or otherwise ingested or absorbed by humans. The period of use of many of these substances has been rather short, and possible undesirable long-range biological effects have not yet had time to appear. Laboratory methods for studying delayed biological effects, such as carcinogenicity are unfortunately difficult to manage, and equivocal in interpretation.

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The Johnson Operation for Acquired and Congenital Coronary Insufficiency

By Aran S. Johnson, M.D., and
Robert Griffin, M.D.
Detroit, Michigan

THE DAY has arrived when patients with coronary artery disease (both acquired and congenital) can be treated successfully by surgery. The future of these patients no longer needs to be clouded with psychological and physical restrictions and limitations. The problem of coronary artery atherosclerosis remains unsolved. However, through the monumental work of Beck and others, surgical methods for increasing the blood supply to the myocardium now offer a patient with coronary artery disease a productive and bright future.

Pathogenesis of Coronary Artery Disease

There are two types of coronary artery disease—acquired and congenital. In the acquired type, the characteristic findings are intimal thickening, degeneration and plaque formation involving the vascular tissue. These vascular changes are features of atherosclerosis. The etiology of this disease remains unknown. The etiological factors which may contribute to this disease process will not be discussed since they remain controversial.

In congenital coronary insufficiency, the characteristic findings are endocardial and subendocardial fibrosis, severe degeneration and diffuse connective tissue displacement of the myocardium. The etiology of this disease appears to be on a developmental basis. Injection studies of the coronary arteries reveal poor collateral and inter-communicating branch formation. In a number of cases the left coronary artery arises from the pulmonary artery. As a result of the developmental coronary artery defect, chronic myocardial anoxia produces the pathological entity commonly referred to as congenital fibroelastosis. This condition is found in infants.

From the Departments of Cardiovascular Surgery at Bon Secours Hospital, Grosse Pointe; Harper Hospital, Woman's Hospital, Detroit; and Highland Park General Hospital, Highland Park, Michigan.

Dr. Griffin is in the Department of Medicine, Bon Secours Hospital, Grosse Pointe, Michigan.

Physiological Basis for Surgery

It has been demonstrated time and again (in the experimental laboratory and clinically) that once a heart becomes unstable, increased work load can easily produce ventricular fibrillation and death. An unstable heart is one in which there are areas (trigger zones) within the myocardium having a variation in the oxygen differential. The difference in myocardial oxygen saturation is the result of coronary artery disease on an acquired or congenital basis. By introducing outside sources of blood, an unstable heart may be rendered stable by improving the oxygen saturation of the entire myocardium and removing the trigger areas. These are now facts which have been time-tested in the experimental laboratory and clinically.

The Johnson Operation

The surgical procedure described as the Johnson Operation for improving the blood supply to the myocardium in the patient with acquired or congenital coronary artery insufficiency can be outlined in the following surgical steps:

1. The rich vascular pericardial and mediastinal fat pads are mobilized and developed into free pedicle grafts and in the infant the thymus is also used.
2. The pericardium is incised above the left phrenic nerve.
3. With the aid of a rasp, the inner surface of the entire left pericardium and the left epicardial surface of the heart is abraded.
4. Heart powder consisting of Isoniazid, Kieselguhr, and Asbestos powder in a mixture of equal parts is lightly sprinkled onto the left epicardial surface of the heart.
5. The free pedicle grafts are sutured in the region of the apex and below the anterior descending branch of the left coronary artery with 0000 atraumatic silk suture.
6. Pericardial windows measuring 1.5 cm in diameter are cut into the pericardium (approximately eight windows).
7. The pericardial incision is closed with interrupted 000 silk sutures.
8. Ligation of the left internal mammary artery at the third interspace.

9. Finally, the pericardial surface of the left lung is abraded with a dry sponge.

The surgical approach for this operation is through a left anterior submammary incision entering the pleural cavity through the fifth interspace. The operating time is approximately one hour.

TABLE I. STATISTICAL DATA ON TWENTY SURGICAL CASES

Number	Sex	Age	Type of Disease	Symptoms	Surgical Results	Months Post Surgical
1.	M	35 years	Acquired	A.P.	Excellent	11 months
2.	M	37 years	Acquired	A.P.	Excellent	18 months
3.	F	32 years	A*	A.P.†	Good	12 months
4.	M	40 years	Acquired	A.P.	Excellent	9 months
5.	M	34 years	A*	A.P.†	Good	14 months
6.	M	44 years	Acquired	EKG	Excellent	20 months
7.	M	41 years	Acquired	A.P.	Excellent	18 months
8.	M	48 years	Acquired	A.P.	Excellent	22 months
9.	M	47 years	Acquired	EKG	Excellent	16 months
10.	M	51 years	Acquired	A.P.	Excellent	15 months
11.	M	53 years	Acquired	A.P.	Excellent	14 months
12.	M	53 years	Acquired	A.D.	Fair	20 months
13.	F	55 years	Acquired	A.P.	Excellent	24 months
14.	M	58 years	Acquired	A.P.†	Good	19 months
15.	M	59 years	Acquired	A.P.†	Good	25 months
16.	M	62 years	Acquired	EKG	Excellent	21 months
17.	M	65 years	Acquired	EKG	Excellent	19 months
18.	M	67 years	Acquired	A.D.	Died	28 days
19.	M	4 months	Congenital	EKG	Excellent	8 months
20.	M	7 months	Congenital	EKG	Excellent	7 months

*Aortic valvular disease.
†Diffuse myocardial damage.
A.P. Angina pectoris with EKG findings.
EKG Positive Master's test, no pain.
A.D. Angina decubitus with EKG evidence of diffuse myocardial damage.

TABLE II. TABULATION OF SURGICAL RESULTS OF TWENTY CASES

Number of Cases	Type of Heart Disease	Surgical Results
12	Acquired	Excellent
4	Acquired	Good
1	Acquired	Fair
1	Acquired	Died
2	Congenital	Excellent

This simple revascularization operation produces four outside sources of blood to a chronic anoxic myocardium. The new rich vascular channels to the myocardium develop from the free pedicle grafts; from the pericardium; from the increased backward flow through the internal mammary artery and its branches; and from the left lung. The vascular adhesions from the ligated left internal mammary artery and the left lung grow onto the heart surface through the pericardial windows. The heart powder consisting of Isoniazid, Kieselguhr and Asbestos acts as a chemical and mechanical irritant in the stimulation and formation of the vascular adhesions.

Selection of Patients for Operation

All patients with a known history of coronary artery disease and those with electrocardiographic evidence of coronary insufficiency should be given the benefit of surgical evaluation as potential candidates for the revascularization operation. Age is not a contraindication. The only contraindications are severe diffuse myocardial degeneration, recent myocardial infarction, and chronic pulmonary disease with low vital capacity. The risk of operation is less than 5 per cent.

Over a period of two years, twenty patients were operated upon for coronary artery disease—eighteen adults with the acquired and two infants with the congenital types of coronary artery disease. The ages in the adult group ranged from thirty-two to sixty-seven years and in the infants from four to seven months. In the adult group there was one death and in the infant group none.

Clinical Results

A clinical evaluation of twenty patients (operated upon for coronary insufficiency) resulted in the following classification for the acquired group: twelve excellent, four good, one fair, and one died. The definition of excellent is freedom from pain, no required medication and no physical restrictions or limitation. Good results mean freedom from pain, enforced physical restrictions, that is, no hard labor or sports, and daily digitalis. The one patient classified as fair, was experiencing occasional pain with physical exertion, had enforced sedentary work and received daily digitalis.

In the congenital group there are two excellent results. Postoperatively there is a decrease

of heart size in these infants as determined by roentgenographs. Heart sounds are strong and of good quality (no longer distant and sluggish). The skin is warm, dry and of good color (no longer cold, clammy and gray). Their appetites improved greatly and they are now growing and happy babies.

Steroid Therapy

Physiopathological studies indicate that a large number of the patients with coronary artery disease also have adrenal insufficiency. Experimental[1,8] and clinical reports reveal beneficial results using cortisone and ACTH in acute and chronic myocardial states of anoxia. With this knowledge, the eighteen reported adult patients received steroid therapy pre- and postoperatively. These patients withstood the surgical procedure very well, recovered rapidly from the anesthetic, and their postoperative convalescence was smooth and uneventful except for one death.

Summary

An operation for improving the blood supply to the heart in patients with acquired and congenital coronary heart disease has been described and the clinical results tabulated. The author advocates the use of steroids pre- and postoperatively in these patients who have adrenal insufficiency to decrease the surgical mortality and morbidity.

816 David Whitney Building
Detroit 26, Michigan

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CAN WE RELY ON MODERN MEDICINES?

(Continued from Page 383)

Consequently the establishment of certification procedures which might assure the public that a given additive is harmless is a most difficult matter, which has been the subject of considerable discussion and controversy. Nevertheless, additives are in use, and the problem of making a reasonable determination of their safety needs to be faced."

A second problem that deserves careful attention is the manner whereby the public is made aware of new discoveries. As the pace of development has quickened, the speed with which new drugs are promoted both to doctors and to laymen has increased until today a physician may be asked about a new drug by his patients almost before he himself has had an opportunity to learn about the benefits and the contraindications of the product. This understandably has brought about a demand for increased cooperation between pharmaceutical manufacturers and physicians. It is interesting to note that this demand is not confined to the United States. A recent release indicates that essentially the same problem is bothering the medical profession in England.



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Chronic Adrenal Insufficiency

A Diagnostic Dilemma

By R. E. Anderson, M.D., and
R. J. Bareis, M.D.
Flint, Michigan

CHRONIC ADRENAL INSUFFICIENCY is considered a relatively rare condition. Cecil,[1] for instance, states that the frequency of the primary form of the disease is approximately one case per 100,000 population. It has been our impression that this disease may actually occur more frequently but that the diagnosis may be obscured by the vagueness of the symptoms and by the difficulty of establishing the diagnosis. During the past two years we have observed four substantiated cases of adrenal insufficiency which illustrate some of the problems and obscurity associated with its diagnosis.

Case Reports

Case 1.—H. R., a forty-six-year-old white woman store manager, separated from her husband, was admitted to Hurley Hospital on April 23, 1957, with complaints of profound weakness, anorexia, nausea, vomiting and a weight loss of ten pounds which had been present for three months. Her symptoms had become progressively more severe. She had become more nervous, was irritable, complained of inability to concentrate, and had noted a memory loss. Always known as a shrewd business woman, she had lost a large sum of money in business ventures just prior to her admission here. She noted a recent craving for large quantities of salt.

Systemic review revealed the onset of vitiligo in 1945. Beginning on the upper extremities, it now involved her entire trunk. This spreading was accompanied by hyperpigmentation of the non-vitiliginous areas. Menstrual periods were scanty but otherwise normal. She denied chills, fever, night sweats or other symptoms.

Past history revealed a bilateral bunionectomy in July, 1954, without post-operative complications. Although otherwise asymptomatic, it is interesting that her white cell count was 10,000 with a differential of 46 per cent neutrophils, 49 per cent lymphocytes and 5 per cent eosinophiles. In November, 1955, she was again admitted to Hurley Hospital with complaints of anorexia, occasional nausea and vomiting, right upper quadrant abdominal pain, and diarrhea. Complete work-up at that time, including a barium enema, upper gastrointestinal series, gall bladder and chest x-rays were all within normal limits. Liver function tests and fasting blood sugar were also normal. The white cell count was 9,000 with a differential of 29 per cent neutrophils, 60 per cent lymphocytes, 7 per cent monocytes and 4 per cent eosinophiles. She was discharged with the clinical diagnosis of psychogenic gastrointestinal dysfunction and vitamins were prescribed. She felt well and remained so until the present illness. During the three months prior to admission, she consulted several physicians, all of whom felt her difficulties were on an emotional basis. She denied previous serious personal or familial disease.

Physical examination showed a blood pressure of 100/70 reclining, pulse of 80, and respiratory rate of 18. She was an asthenic, thin woman weighing 100 pounds, who was lethargic, apathetic, and reluctant to speak. Vitiligo covered her entire body but was more prominent on her trunk where the surrounding areas were definitely hyperpigmented. No mucosal, joint surface, or nipple hyperpigmentation was noted. She was moderately dehydrated and reflexes were generally but equally diminished. Lymphadenopathy was not present and the rest of the examination gave findings within normal limits.

Laboratory examinations showed an admission white count of 10,000 with 41 per cent neutrophiles, 46 per cent lymphocytes, 6 per cent eosiniphils, 5 per cent monocytes and 2 per cent basophiles. At the time of discharge she had 7,000 white blood cells with 77 per cent neutrophiles and 23 per cent lymphocytes. Hemoglobin was 14 mg.; erythrocytes were 4 million/cu. mm.; and urinalysis was within normal limits with a specific gravity of 1.023. Serology, serum albumin and bromsulphthalein tests were normal. The total eosinophil count was 275 and after 25 mgm. of ACTH, intravenously, over an eight-hour period, the count was 187 cells. A control urinary 17-ketosteroid determination was 3.9 mgm. for twenty-four hours, and after ACTH stimulation, it was 3.7 mgm. for twenty-four hours. Admission electrolytes revealed a sodium of 105 meq./liter; chlorides of 81.2 meq./L.; potassium of 8.6 meq./L., CO_2 combining power of 15 meq./L., and a blood urea nitrogen of 28.4 mgm. per cent.* Spinal fluid examination and skull x-rays were normal. Basal Metabolic Rate was plus seven and PPD #1 and #2 (tuberculin) were negative in forty-eight hours. A chest film revealed a small cardiac silhouette, consistent with the diagnosis of Addison's disease. (See Fig. 1-A)

Early in her clinical course, the diagnosis of adrenal insufficiency was considered but it was felt more probably

From the Department of Internal Medicine, Hurley Hospital, Flint, Michigan.
Dr. Bareis is now in practice in Rapid City, South Dakota.

*Normal values in our laboratory: Sodium 137-147 meq./L., potassium 4.1-5.6 meq./L., chloride 98-106 meq./L., CO_2 combining power 24-31.5 meq./L., and blood urea nitrogen 10-15 mgm. per cent.

that her symptoms represented a psychophysiological reaction, precipitated by recent financial losses. A work-up, however, was felt indicated. During the course of the eight-hour intravenous ACTH test, she became restless, complained of paralysis of her extremities and had a feeling of impending doom. Physical examination at that time was essentially unchanged. She was reassured and given Seconal (3 grains IM) and later in the same evening this medication was repeated. At 8:00 a.m. she was very much worse. She was very lethargic, could not move any of her extremities, spoke only in gasps with a faint whisper. B. P. was 100/70 reclining; pulse was 80. Deep tendon reflexes were unobtainable. A spinal tap was done and intravenous saline was started. One hour later she was found in profound shock with a blood pressure of 60/0, but with a surprisingly slow pulse of 80. She perspired profusely, was cool and clammy, and had shallow rapid respirations. Intravenous hydrocortisone and saline were given rapidly. Within an hour her blood pressure had returned to normal limits and within twenty-four hours she was eating well and up walking about. During this time she received 400 mgm. of hydrocortsone and 6 liters of fluid. Her steroids were tapered during the next two-week period, so when discharged on May 10, 1957, she was receiving hydrocortisone, 10 mgm., b.i.d. and 0.1 mgm. of 9-alpha-flourohydrocortisone. She was completely asymptomatic, had normal electrolyte values, and had gained eight pounds.

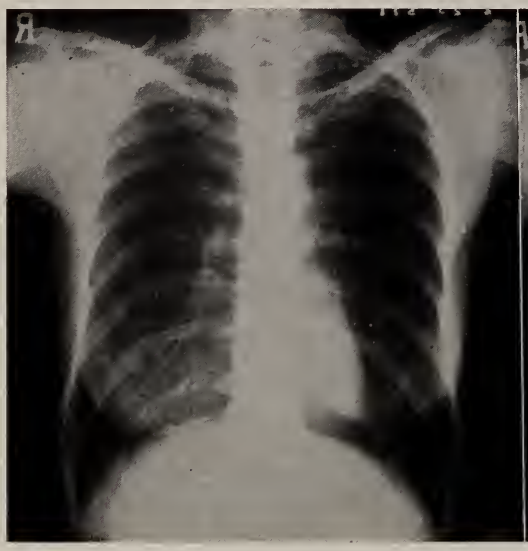


Fig. 1. (A) Small cardiac silhouette revealed by chest x-ray and consistent with the diagnosis of Addison's disease (*Case 1*—H.R.).

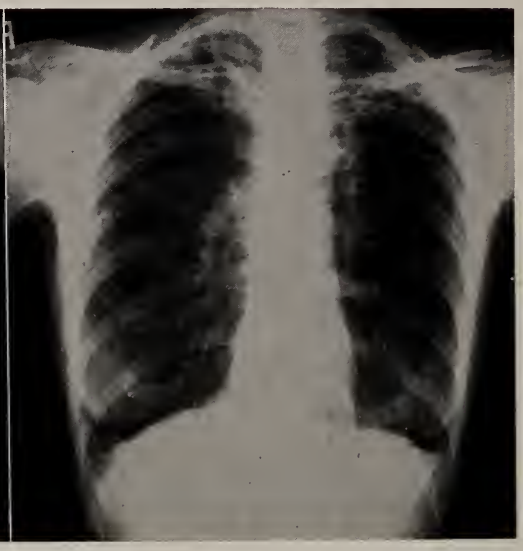


Fig. 1. (B) Small cardiac shadow (*Case 2*—R.P.).

Comment.—In retrospect, this patient very typically illustrates chronic adrenal insufficiency terminating in adrenal crisis. It is not unusual for these patients to be diagnosed as having emotional or psychophysiological disease. Certainly complaints of weakness, irritability, fatigue, anorexia and emotional lability can be attributed to neurasthenia. Vitiligo is also not uncommon in Addison's disease, occuring in some 15 to 20 per cent of cases.[2] In this case, it was the most important initial finding that alerted the physician to the possibility of organic disease. Electrolyte and steroid values obtained here are almost diagnostic for the disease. If the results of these determinations had been more readily available, therapy would have been instituted more promptly and adrenal crisis avoided. In view of the hyperkalemia present, an electrocardiograph at the time of adrenal crisis would have been informative. The giving of large doses of Seconal probably was a prominent factor in precipitating the crisis. Sedatives and hypnotics are poorly tolerated by the Addisonian patient. We have no etiological explanation for adrenal insufficiency in this case.

Case 2.—R. P., a fifty-two-year-old married woman, secretary, was admitted to Hurley Hospital on May 23, 1957, with the chief complaints of increasing nervousness, irritability, and fatigue during the preceding six months. During the last month she had also developed symptoms of anorexia, nausea, and occasional vomiting which were not related to any specific food ingestion. These symptoms were more severe in the early morning hours. A weight loss was estimated to be twenty pounds during the six-month period. Dizziness was the most recent complaint, occuring after standing or changing position suddenly. A sister had noticed a deepening of her skin color although the patient was not aware of this change. Systemic review was unremarkable. Menses had ceased one year previously, but had been normal until that time. She had consulted two other physicians prior to her admission who attributed her

symptoms to nerves and prescribed vitamins and tranquilizers.

Past history was not remarkable. She had been in good health except for single episodes of pneumonia and pyelitis. She denied operations and history of allergic or serious disease. She had been exposed to a brother who had died of tuberculosis twelve years before. She had spent her entire lifetime in Michigan.

Physical examination on admission revealed a well developed, thin, acutely ill, irritable woman complaining of weakness and nausea. Blood pressure reclining was 110/70; standing was 80/60 and was accompanied by lightheadedness. Pulse was 90 and regular; temperature was 99 degrees. There was generalized increased brownish pigmentation, especially over neck, shoulders and left elbow. There were no mucosal hyperpigmentation, lymphadenopathy or chest findings. The remainder of her examination was within normal limits.

Laboratory tests included an admission hemoglobin of 16 grams, hematocrit of 50, leukocyte count of 8,600 with a deferential of 27 per cent neutrophils, 58 per cent lymphocytes, 5 per cent eosinophils, and 10 per cent monocytes. Sedimentation rate was 19 mm./hour, corrected. Urinalysis, serology, bilirubin, and bromsulphthalein tests were normal. Total eosinophil counts were 264 and 250, and after 25 mgm. of ACTH intravenously over an eight-hour period, 155. An intravenous glucose tolerance test was normal with a fasting value of 91 mgm. per cent (normal is 80-120 mgm. per cent). A blood urea nitrogen was 28 mgm. per cent, CO^2 combining power 24 meq./L., sodium 141 meq./L., potassium 6.1 meq./L., and chlorides 110 meq./L. BMR was minus 15. Unfortunately control urinary 17-ketosteroid and 17-ketogenic steroid determinations were misplaced; however, a twenty-four-hour sample taken following an intravenous ACTH test showed 17-ketosteroids of 5.5 mgm. and 17-ketogenic steroids of 7.3 mgm. (normal values without ACTH stimulation are 10 plus or minus 5 mgms.).[3] X-rays of the chest showed fibrocalcific changes in both upper lung fields thought to be compatible with either tuberculosis or histoplasmosis with activity undetermined. The heart shadow was small and consistent with that seen in Addison's disease (See Fig. 1-B). Abdominal x-ray did not reveal adrenal calcifications. Purified protein derivative #1 and #2 were negative after forty-eight hours while a histoplasmin skin test was strongly positive. Sputum and gastric washings were negative for tubercle bacilli.

Clinical Course: On admission, the patient was treated with intravenous fluids including saline and greatly improved after three days. A careful review of her symptoms, the finding of a relative lymphocytosis, hyperpigmentation, and small cardiac shadow on x-ray raised the possibility of chronic adrenal insufficiency. Water tests to determine her ability to diurese were attempted on two occasions but she was unable to tolerate the large volume of water. After salt had been restricted and fluids forced over a forty-eight-hour period in preparation for a Cutler, Power and Wilder test for Addison's disease, the patient became nauseated, vomited repeatedly, and felt very weak to the point of not being able to sit up. Blood pressure reclining was 80/60; sitting was unobtainable and was associated with severe dizziness which was intolerable. Blood studies showed a glucose of 79 mgm. per cent, sodium of 132 meq./L., and potassium of 6.0 meq./L. She was started on IM and IV hydrocortisone, IV saline, and IM DOCA in 5 mgm. daily doses. Improvement was dramatic. The DOCA was stopped after two days and hydrocortisone was reduced to a maintenance dose of 10 mgm. b.i.d. during the next week. During this time she gained six pounds, regained her appetite, and felt perfectly well.

Comment.—Once again, many of this patient's complaints could be attributed to a chronic tensional state. However, these symptoms in association with hyperpigmentation, low blood pressure and postural hypotension would give one a high index of suspicion that chronic adrenal disease is present. Some of the laboratory tests are equivocal, but in association with the clinical picture the diagnosis seems irrefutable. This patient presented a diffuse type of pigmentation occasionally seem in Addison's disease. It is interesting to speculate about the part that a past histoplasmosis infection might have played as the etiological agent here.

Case 3.—S. N., a fifty-seven-year-old white man, factory worker, was admitted to the hospital in June, 1955, with a two-week history of intermittent anorexia, nausea, vomiting and burning left anterior and substernal chest pain. He had been maintained at bed rest because of weakness and had lost 20 pounds of weight in the two-week period. He had been seen by another physician some ten days before who prescribed penicillin without relief. He denied dizziness, any change in his skin color, or other symptoms. There had been no previous serious illnesses or hospitalizations or known exposure to tuberculosis.

On admission to the hospital his blood pressure was 94/50 reclining, pulse 80, respirations 20, temperature 99 degrees. He was obviously acutely ill, dehydrated, lethargic and somewhat disoriented. There were small areas of tan pigmentation on the buccal mucous membranes, over his elbows, knucles, and legs. Heart and lungs were not remarkable except for some emphysematous changes. The remainder of his physical exam was normal.

Laboratory findings on admission revealed a hemoglobin of 16.7 gm., white blood count of 3,800 with a differential of 61 per cent neutrophils, 36 per cent lymphocytes, 1 per cent monocytes and 2 per cent eosinophiles The urinalysis was normal. The hematocrit was 49 per cent; the sedimentation rate was 44 mm./hour corrected. Serum sodium was 117 meq./liter, serum potassium 7.1 meq./L., chlorides 75.7 meq./L., blood urea nitrogen 63 mgm. per cent. An oral glucose tolerance test revealed a curve of 94 mgm. per cent fasting and subsequent hourly values of 110, 94, 70, 101 and 82, mgm. per cent. Electrocardiogram revealed a pattern

compatible with electrolyte disturbance, probably hyperkalemia. A tuberculin test was strongly positive. An upper gastrointestinal series revealed grossly abnormal small bowel pattern and motility of undetermined etiology. There were irregular calcifications in relation to the right lateral margin of the 12th dorsal vertebral body possibly due to calcifications within the right adrenal gland. A chest x-ray revealed a small cardiac silhouette which was compatible with the diagnosis of Addison's disease. There was a bilateral upper lobe infiltrate thought to represent tuberculosis of undetermined activity.

Clinical Course.—On admission, diagnoses of myocardial infarction, peptic ulcer, pancreatitis, renal disease with uremia, and neoplasm were considered. Symptomatic therapy with intravenous fluids, thorazine, antacids and sedatives was without effect. Two days after admission, the correct diagnosis was suspected for the first time and the patient was started on desoxycorticosterone acetate, hydrocortisone and sodium chlorids. Even though attempts to prove active tuberculosis were unsuccessful, in view of the x-ray findings, anti-tuberculous drugs were also started. Improvement was dramatic and at the time of discharge on July 7, 1955, the patient was asymptomatic. His blood pressure was 120/80 reclining and his electrolytes were normal. Subsequent chest films showed no change in the described infiltrates. Sputum and gastric washing cultures were negative for tubercle bacilli.

The patient was again seen in Hurley Hospital in March, 1957, with the diagnosis of thrombophlebitis. At that time, his blood pressure and electrolytes were again within normal limits and he had no symptoms referable to adrenal insufficiency. He had been maintained on small doses of hydrocortisone and 9-alpha-flourohydrocortisone.

Comment.—Mr. S. N. represents a case of chronic adrenal insufficiency presenting with a picture compatible with gastrointestinal or cardiovascular disease and detected only by a high index of suspicion and adequate work-up. This case, more so than the others, typifies the classical pigmentary changes described by Addison. The chest x-ray findings and positive tuberculin test strongly suggest tuberculosis as the etiological agent.

Case 4.—L. A., a thirty-two-year-old male factory worker, was well until the day prior to his admission in December, 1956, when he developed chills, fever, generalized myalgias, and severe sudden frontal headache which was bilateral and throbbing in character. The headache was not relieved by simple medications and injections given by the family doctor. Later in the day, the patient developed anorexia, nausea, vomiting, and experienced continuous slight dizziness and unsteadiness of gait. He had had no previous similar episodes. No weight loss or pigmentary changes had been noted. He had previously been studied for infertility and had some slight questionable impotence and loss of libido the year prior to admission. There was no significant past history or familial disease.

On admission, his blood pressure was 100/78 reclining, temperature 100.8 degrees, and pulse 100. He was somewhat sluggish and obtundent and was lying quietly in bed complaining of extreme weakness and persistent headache. There was generalized depigmentation and pallor of the skin and mucous membranes. The nipples were light in color. The heart was normal in size. Hair growth was adequate and neurological examination was intact. The heart was normal in function. There was slight testicular atrophy and phallus was slightly decreased in size. Visual fields were normal.

On the basis of continued persistent headache, an x-ray of the skull was taken and revealed an enlargement of the sella turcica. Investigating this finding, the following laboratory studies were obtained. Spinal fluid dynamics and exam were normal. A BMR was minus 28 and repeated was minus 35. Serum cholesterol was 167 mgm. per cent. An oral glucose tolerance test revealed a flat curve with values of fasting 94 mgm. per cent and subsequent half hour values of 132, 43, 71, 59, 67, 65, and 71 mgm. per cent. Serology, urinalysis, and hemoglobin were not remarkable. White blood count was 7150 with 52 per cent neutrophiles, 37 per cent lymphocytes, and 11 per cent monocytes. Sperm count was 93,000,000 cells/cubic centimeters. Urinary 17-ketosteroid determinations on two occasions were 2.1 mgm. per cent and 3.1 mgm. per cent per twenty-four hours. Protein-bound iodine was 4.9 units. A quantitative follicle-stimulating hormone test was negative at 6 mouse units.* After 25 units of I. V. ACTH, the eosinophile count dropped from a pre-test level of 122 cells to 77 cells. Serum sodium and potassium were normal but serum phosphorus was elevated to 3.6 mgm. per cent. Cerebral arteriograms were not helpful.

Clinical Course.—On admission to the hospital, the patient was treated symptomatically with analgesics and intravenous glucose. His fever and headache subsided within forty-eight hours, but intermittent episodes of weakness and dizziness persisted. An attempted arteriogram was discontinued because of severe dizziness and hypotension of 70/40 reclining. Intravenous saline was added to the therapeutic program and the patient's strength gradually increased. The diagnosis of panhypopituitarism secondary to an expanding lesion of the pituitary gland was made and therapy advised. The patient was subsequently hospitalized at University Hospital in Ann Arbor, where the diagnosis was confirmed and cobalt therapy to the pituitary gland was carried out. The patient is now maintained in good health on maintenance therapy with thyroid, hydrocortisone and testosterone.

Comment.—Mr. L. A. represents a case of occult adrenal insufficiency secondary to failure of stimulation of the adrenal glands by the pituitary. The patient entered the hospital with a picture compatible with a viral infection and was then

*Normal Value—positive at 6 mouse units, negative at 48 mouse units.

fortuitously discovered to have adrenal insufficiency. This patient illustrates one of the pigmentary changes seen in adrenal insufficiency, but in this case depigmentation is the predominent finding due to failure of stimulation by melanocyte-stimulating hormone which is also decreased in pituitary hypofunction.[5] Decreased pigmentation, particularly of the nipples and genital areas, is a clue in the differentiation of primary and secondary adrenal insufficiency. Despite the vagueness of his symptomatology on admission, complete endocrine work-up on the basis of the suggestive findings yielded gratifying results and spared the patient a prolonged and protracted course of illness.

Discussion

Symptoms of adrenal insufficiency often mimic organic disease of specific organ systems as well as psychophysiologic disturbances. A careful history and physical examination is mandatory if this disease is to be recognized. Unfortunately, no single symptom, physical finding, or laboratory test is diagnostic. The diagnosis can be established only by correlating the composite clinical picture with the appropriate laboratory studies. As in the diagnosis of any relatively rare disease, a high index of suspicion is required. Cases 1 and 2 were seen by competent physicians over a period of several months with diagnoses of psychophysiologic disturbances. Case 3 presented a picture compatible with multiple diagnostic possibilities. A diagnosis of influenza seemed adequate to explain the clinical picture in Case 4. In no case was adrenal insufficiency suspected on admission to the hospital.

Even though one desires preliminary laboratory studies before instituting specific therapy, it is occasionally necessary to treat the patient on an empirical basis in order to prevent the possible mortality associated with severe adrenal crisis. Our hesitancy to do so in Case 1 almost led to a fatality. On the other hand, the diagnosis should not be made indiscriminately because doing so may commit the patient to lifelong therapy.

The four cases described here illustrate four distinct types of pigmentary change. Case 1 represents vitiliginous change seen in 15 to 20 per cent of cases of Addison's disease. Diffuse tanning of the skin characterized Case 2 while Case 3 demonstrated the classic spotty pigmentation, particularly of the buccal mucosa. The secondary type of adrenal insufficiency with hypopigmentation is illustrated by Case 4. There has been no adequate explanation for the differences in distribution of pigmentation in primary adrenal insufficiency.

In earlier reports, tuberculosis was most frequently incriminated as the cause of Addison's disease. Today it probably accounts for less than 50 per cent of cases.[1] Many of the remaining cases are idiopathic with a small number being caused by histoplasmosis, amyloidosis, and tumor metastases. The possibility of histoplasmosis as the etiology of Case 2 and tuberculosis of Case 3 seems entirely plausible.

Summary

1. Four cases of adrenal insufficiency are presented, three of the primary variety and one secondary to pituitary tumor. The fact that these cases were newly diagnosed in a general hospital over a two-year period would indicate that the disease is not as rare as previously reported.

2. Confusion with other diseases or neurotic behavior is often the cause of delay in establishing the diagnosis.

3. The diversity of forms of pigmentary changes seen in the four cases is discussed.

4. Etiologic relationships are suggested in three of the cases presented—one of tuberculosis, one of histoplasmosis, and one secondary to pituitary tumor.

5. A high index of suspicion is required if chronic adrenal insufficiency is to be diagnosed.

Acknowledgments

For the use of their private patients in this report, we make appreciative acknowledgment to Drs. John Rowe, Eli Bernstein, Louis Coriasso, John Quinn and Robert James.

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3002 Mason Street
Flint 4, Michigan

Small Plant Medical Care

By Thornton I. Boileau, M.D.
Detroit, Michigan

TODAY'S small plant operations have become an integral part of the life and livelihood of every community. The impact of such operations is not only upon the individual worker but reaches out to affect the health, economy and future of the neighborhood. Small plants are manpowered by the "man next door," by "his oldest boy, John," by a fellow migrant "from back on the farm," all settled into a fairly well-defined area.

Their problems follow a similar pattern, depending upon heredity, background and personal skills, but all are profoundly affected by the practices and policies of their employer. This influence, whether it be good or bad, affects to some extent every man, woman or child. The modern industrialist recognizes his obligation to his neighbors and realizes that their health and prosperity is basic and inseparable from the welfare of industry as a whole.

Responsibilities

The mutual responsibilities of medicine and industry cannot be discharged with profound pronouncements and group singing by physicians and industrialists. They demand the practical application of medical advances and improved manufacturing methods on the job.

The physician must be trained to do more than treat the trauma and acute problems of industry. He must be ready to carry preventive medicine to a point where a steady, healthy management and working force can be maintained. Health conservation can easily prolong the productive and effective years of man with his acquired skills. The small plant owner or manager is forced to deal in competitive realities. He is not in the medical business but a manufacturer of goods. The modern executive realizes the need for medical assistance and is willing to invest in it if he can be shown some tangible return for his investment. Unless he can be competitive, the operation ceases to exist and with it many jobs.

Presented at the 92nd Annual Session of the Michigan Medical Society, Grand Rapids, September, 1957.

Challenge to Advance

Organized medicine is now challenged to carry to the small plant the concepts of occupational medicine developed through the initiative of larger corporations in recent years. It is applied preventive medicine at its best that when integrated with other medical facilities, will have far-reaching benefit for the whole community.

The physician interested in the field of occupational medicine, now officially recognized as a specialty, will find ample opportunity available in the care of small plants. This is not for the man who has taken a long look at the broad field of medicine, felt his knees weaken, and then chosen some small segment in which he hopes to become proficient. Rather, here is needed the physician willing to add unto his store of general medical knowledge, the skills acquired by direct contact with the problems of his laboring fellowman. He must have patience—patience to treat the man himself, not just the injury; patience to listen, patience to observe and patience to understand.

The Survey

The initial move of the industrial physician who has been asked to accept responsibility for medical care in small industry is to make a careful survey of the operation. This should include the following:

1. The geographic location as related to the work force and available transportation.
2. The physical characteristics of the plant itself as regards construction, lighting, ventilation and heating.
3. The manufacturing process, the machinery involved, raw material and actual production.
4. Tabulation of chemicals, solvents or toxic substances in common use and their identification.
5. The physical and mental requirements of each job classification.
6. Installations for dust, fume, and noise controls.
7. Methods of material handling, whether manual or mechanical, and weights involved.

8. Sanitation of the plant and water supply.
9. Provisions for first aid and the handling of medical emergencies.
10. A record of absenteeism due to both injury and illness.

The Program

With the plant survey as a general guide, the physician may now institute constructive medical controls. The medical supervision and time required can be regulated whether the employes be ten in number or 500. The second step is now to set up a pattern of progress.

1. Determine how much time is to be allotted to the particular plant depending upon the number of employes, type of manufacture and medical facility. It may be two hours each morning for a plant of five hundred or a brief visit once a week to a small shop employing fifty men.
2. Make recommendations regarding the employment of an industrial nurse on a full or part-time basis if indicated. Also, arrange training of selected employes in first aid and emergency care.
3. Set up and supply an adequate but not extravagant first aid. This may be a well-stocked chest in the supervisor's office or a separate area with modern medical equipment.
4. Provide the plant manager and any medical personnel with a clear set of standing orders for the handling of emergency and routine medical cases.
5. Pre-employment physical examinations are a necessity if the selection of personnel is to be related to the job demands of the particular plant. The man must be identified with the requirements of the job from the standpoint of stability, adjustment and physical aptitude to attain effectiveness for the employer and steady employment for the employe.
6. A periodic tour of the plant with the manager to survey possible hazards and make recommendations for correction on a practical basis.
7. Review the ratio and causes of absenteeism at least every three months and institute preventive measures. On this score, you may expect full co-operation from every plant manager. Someone is needed to man every job, especially in a small plant where the owner is often one of the workers.
8. Consultants must be recommended, where indicated, in the fields of toxicology, occupational disease, or trauma, and the employer guided in their selection. They may be drawn from either state or private agencies.
9. Encouragement of the employe in good health practices by constructive periodic examinations. He is to be encouraged to consult his family physician not only for treatment of the acute illness but for long-range preventive measures.
10. As counselor, the industrial physician will be called upon to answer many questions and often arbitrate differences of opinion. In all of these things, the dignity of the individual comes first. The prestige and influence of your office depends upon fairness.

The industrial physician will find it practical to divide his time between a number of small plants in a given geographic area. With diligent supervision and planned care of each, many small plants may be well served. The good that will come by carrying the philosophy of preventive medicine to the people in their work-place will be great. It will give a ringing answer to the present demand for extended application of medical advancement. And, for the physician himself, the personal satisfaction of needed work well done, will make him akin to all he serves. Medicine is an Art, beloved by all men, but nowhere is its practice more rewarding than in the little world of the small plant.

DIMINISHING RETURNS

Between 1950 and 1953, personal income rose 26 per cent; the number of tax returns was up 41 per cent; gross income reported on the returns was up 33 per cent, and tax liability was up 60 per cent. However, the number of returns with gross incomes of $100,000 was down 23 per cent. Total income reported on these returns was down 28 per cent and total tax liability for these returns was down 24 per cent.

During the year 1952-1953, personal income was up 5 per cent, the number of tax returns rose 3 per cent, and gross income reported on these returns was up 7 per cent. The total tax liability was up 6 per cent.

Four years ago this state of diminishing returns was reached by almost a quarter of a million taxpayers, affected over one-sixth of all taxes collected, and is each year reaching a lower level of income.—*Economic Intelligence,* U. S. Chamber of Commerce.

Outposts of Medical Research

By John D. Porterfield, M.D.
Washington, D. C.

IT IS commonly said that discoveries in the medical sciences are being incorporated into medical practice more rapidly nowadays than in any prior era since medicine became a learned profession; and it is customary to express keen gratification that such is the case.

Undoubtedly, the means for the rapid dissemination of knowledge have greatly increased in the modern period. Also, technologic advances in medicine during the past twenty years have been nothing short of breathtaking.

We have just had striking evidence of these developments in the preparations for combating Asian influenza in this country. News of the epidemic in Hong Kong about the middle of April was flashed to health authorities throughout the world in a matter of minutes. By May 13, United States Army virologists had isolated the new virus, an immunologically distinct variant of influenza virus A. Planes flew a sample of the new virus to this country in a few hours. By early June, scientists of the Walter Reed Army Institute of Research had propagated the Asian influenza virus for distribution to pharmaceutical manufacturers. By July 5, U. S. Public Health Service laboratories had tested a successful monovalent vaccine. On August 12, manufacturers released the first million and a half cc. of Asian influenza vaccine to military and civilian physicians. Between the outbreak in Hong Kong and the introduction of a new immunizing agent into medical practice, four months had elapsed. Each step depended on modern means of communication and transportation, and on medical facilities and skills unknown twenty years ago—many unknown ten years ago.

Contrast this with the introduction of smallpox vaccination into this country. Edward Jenner published his "Inquiry into the Causes of the Variolae Vaccinae or Cowpox" in 1796. The news reached American shores, under sail, nearly three years later when early in 1799, Benjamin Waterhouse received a copy of the paper from an English colleague. Another eighteen months elapsed before Waterhouse could send for and receive some of the cowpox matter with which to test the worth of Jenner's discovery. Even when he had done this and published his findings in December 1800, he alone had the means to propagate the virus but no one had the means to produce and distribute it in volume.

Despite such evidence that modern medicine is better equipped to eliminate the lag between scientific findings and practical application, there is still a considerable distance between the outposts of medical research and the office of the practicing physician. Let us examine the grounds for this statement and explore some possibilities for narrowing the gaps.

Science or Technique?

Generally speaking, we can distinguish two major contributions of research to medical practice—knowledge of biological processes and technical equipment for dealing with pathologic conditions. To a greater or less extent, both science and technique are involved in every scientific observation; but the proportion of each in medical research varies not only from subject to subject, but also from one period of time to another. The impact of new knowledge or new technique on practice also varies, not only according to the speed and efficiency of communications between investigators and practitioners, but also in proportion to the physician's interest in basic understanding or in immediately applicable techniques for dealing with disease.

Thus, variations in the content and emphasis of medical research, in the quality of communications, and in the receptiveness of physicians may be determining factors in the relative speed with which some medical discoveries are absorbed into practice while others remain generally unknown or little applied.

It would appear that medicine at present is in a period when investigators and practicing physicians are of one mind in the search for greater

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Dr. Porterfield is Deputy Surgeon General, U. S. Public Health Service, Department of Health, Education, and Welfare.

technical efficiency in the treatment of disease. The past decade has produced antibiotics, steroids, agents for the treatment of hypertension, surgical and anesthetic techniques—all unheard of when the majority of practicing physicians were in medical school. Even in cancer and certain mental illnesses, chemotherapy now offers hope of better clinical control.

It is not surprising that practicing physicians have been eager receptors of such contributions. In many instances, the new procedures and agents have given physicians their first opportunity to afford swift relief from suffering or to prevent deaths due to conditions long unresponsive to available therapies.

But emphasis on "practical results" tends to push into the background of medical practice the many substantial advances of the past decade in fundamental and clinical knowledge. In these contributions, science presents the greatest intellectual challenges to the practicing physician; but here the distance is greatest between the outposts of medical research and the practitioner's office.

The critical factor in this lag is the tremendous scope and complexity of contemporary medical science. Where physicians have been accustomed to dealing with clinical manifestations, morphological changes and physiological disturbances, science now turns our attention to molecular and sub-molecular structures and their amazingly complex functions. From this vantage point, a new view of the human organism is emerging which changes fundamentally our traditional concepts of pathogenesis.

This is especially true, for example, in disturbances of metabolism. Within this broad field of medicine, a unifying influence has been operating with increasing force during the past decade —namely, the partnership of genetics and biochemistry. While independent studies in both fields continue to broaden the areas of basic knowledge, the joint approach has been extraordinarily fruitful in sharply defining specific clinical problems and, in some instances, establishing leads to effective prophylactic and curative therapy. No physician, be he a general practitioner or a specialist, can function efficiently today without a good understanding of the biochemistry of inheritance.

Six years ago, Dr. George W. Beadle, as guest lecturer at the National Institutes of Health, discussed the advances in this field to which he and his associates at the California Institute of Technology had made—and continue to make. These are outstanding contributions.[1] In presenting the evidence then available on the genetics of metabolism, Dr. Beadle described the intimate relationship between a specific gene and a specific enzyme in the process of catalyzing a specific biochemical reaction. At that time, this one-gene one-enzyme hypothesis had had some application in laboratory and clinical studies of various obscure methabolic diseases and blood dyscrasias. But the specific biochemical defects had not been thoroughly clarified nor was there direct evidence of milder clinical forms of such hereditary deficiency diseases, nor of possible relationships between such disorders and other diseases. In the brief period since 1951, progress along each of these lines has been striking. To illustrate, I should like to cite two recent integrated studies at the Public Health Service's National Institutes of Health.

Galactosemia has long been recognized as an hereditary inability to metabolize a specific component of milk sugar, galactose. The early manifestations are observable shortly after birth, but it has been extremely difficult to differentiate the basis of such symptoms as diarrhea, jaundice, and enlargement of the liver in infants. Deaths, therefore, have been common in early infancy and children who have survived have been affected by metabolic illnesses and mental retardation.

Within the past two years, Dr. Herman Kalckar (pronounced Kal-kar) and his associates at NIH have demonstrated the specific biochemical defect in galactosemia.[2] It is a genetically-directed deficiency in the enzyme, galactose transferase, which catalyzes the conversion of galactose phosphate to glucose phosphate in the red blood cells and the liver. On the basis of this finding, the same research workers have developed a safe and relatively simple diagnostic test for galactosemia, applicable in infants and older children. It is now possible to establish a definitive diagnosis of the disease in earliest infancy, and hence to prevent its devastating effects through galactose-free diets. There is good reason to believe that untold numbers of cases have been unrecognized in the past.

Another finding in this series of investigations is of interest. It was demonstrated that the parents of children with galactosemia have some difficulty in metabolizing galactose, although they have only one abnormal gene while the affected offspring in-

herit two—one from each parent. This enhances the physician's opportunity to discover carriers of the trait, and to use this information in counseling clients.

Within the past two months, Drs. LaDu, Seegmiller, Laster, and McGuire at NIH have demonstrated, for the first time, the specific enzymatic deficiency in alcaptonuria, another hereditary metabolic disturbance.[3] The "black urine" characteristic of the disease appears in early infancy, usually first observed when the infant's diapers turn brown after washing and drying in the sun. This symptom causes no discomfort and does not appear to be associated with other disorders in early life. In later life, however, serious complications may develop including a progressive, deforming arthritis resulting from damaged cartilage (ochronosis).

The importance of new knowledge of alcaptonuria rests on the possibility that the disscovery and elucidation of a causal relationship between the joint manifestations and the accompanying metabolic defect may provide better understanding of the pathogenesis of apparently unrelated forms of arthritis. Moreover, clarification of such clinical and biochemical relationships may lead to rational programs of early diagnosis and preventive therapy.

The biochemical defect in alcaptonuria has long been recognized as a failure to oxidize homogentisic acid, an intermediate compound in the metabolism of the aromatic amino acids, phenylalanine and tyrosine. Phenylalanine is converted into tyrosine and the latter then undergoes numerous oxidative changes. Athwart this path of tyrosine stands homogentisic acid which normally is fully metabolized at this point to clear the track. In alcaptonuric patients, this reaction is blocked or impaired. What is missing is the genetically-directed enzyme that catalyzes the breaking of the homogentisic acid ring.

The NIH investigators have identified this missing link as homogentisic acid oxidase and have demonstrated its absence in the liver of an adult patient with alcaptonuria and associated ochronosis.

What is the significance of such a demonstration to the practicing physician? It offers no new drug for the treatment of alcaptonuria. It adds nothing to laboratory diagnostic techniques already available. According to the investigators themselves, it probably raises more questions than it has answered. But it does challenge the physician's thought, as have other demonstrations in the field of biochemical genetics, and it cannot fail to affect his recognition of the vague early symptoms of this and many related disorders. Diagnosis, therapy, and prognosis depend upon such recognition.

Quite apart from the fact that scientific observations of this type shape the course of future research, they afford the physician a deeper insight into common factors found in apparently unassociated conditions and can contribute immediately to the more effective management of patients. Again using our recent NIH experience with alcaptonuria merely in illustration: The patient studied at our Clinical Center was referred in August 1956 with a diagnosis of alcaptonuria with ochronosis. He was then fifty-four years of age. About twenty years earlier, the first symptoms of joint disease had appeared—the "dull aching pain in the sacroiliac area"—but this disease had not been diagnosed. Later an acute episode of pain was interpreted as "ruptured disc." Ten years later, after gradual progression of both metabolic and arthritic symptoms, an erroneous diagnosis of diabetes mellitus was made on the basis of a urinalysis. Three years later the same erroneous diagnosis was made and only when a rigid diet failed to eliminate the urinary reducing substance, were further tests made establishing the diagnosis of alcaptonuria.

In the decade 1946-56, described by many as one of outstanding progress in medicine, the only "progress" in this patient was that of his disease, his pain, his deformity, his despair, unaffected by countless new techniques. Should I be far wrong in saying that such patients are the real outposts of medical research and that progress in medical science depends on the thoroughness with which new basic and clinical knowledge is applied in their physicians' offices?

Communications Between Research and Practice

Medical science today challenges the practicing physician to think—as an experimental biologist and in terms of new disciplines not fully incorporated in his basic training. Effective communication of such new knowledge thus becomes a major problem and responsibility for both medical scientists and medical practitioners. To discharge that responsibility, all of us concerned with human

beings as the subjects of our inquiries and services need to face up to a few facts.

First, although the walls of isolation between the scientific disciplines and even between the clinical specialties are yielding to reason, there are still some apparently impenetrable barriers between the "scientific community" and the "practicing fraternity."

Second, much scientific reporting in fields relevant to the study of Man is incomprehensible, except to those trained in the symbols, methods, thought processes, sesquipedalian terms, and tortured prose of the several disciplines.

Third, there are pressures, subtle and not-so-subtle, that discourage the practicing physician in any attempts to indulge his intellectual curiosity.

Communication is relatively free and speedy among medical scientists, whatever their special disciplines or clinical research areas may be. But if we view Modern Medicine, its Arts and Sciences, as a whole, we must agree that communication in a vertical direction is relatively restricted and slow.

Accessions to fundamental knowledge upon which all else depends do not remain long inaccessible to the few—the research scientists; while the many—the practitioners—remain to varying degrees unaware of basic observations until these have been hammered into a procedure or therapeutic agent by applied research and technological development, often without thorough clinical evaluation. They may promptly incorporate these "practical results" into their practice without a clear concept of the basic principles whence the technique sprang.

The laboratory researchers are the first to know about new basic findings. They have good cross-channels of communication, travel about to see what's going on in other research centers, and publish their findings promptly. They are interested in communication, but with a certain group—their "peers" in the basic disciplines. For it is a matter of survival in their fields to present their observations to the judgment of other basic scientists. With the accelerated methods made possible by modern instrumentation, basic observations can be made much more rapidly than in the past, but the range of communication remains narrow. To paraphrase a well-known jingle, the basic research laboratory seems to be:

> "The home of the atom and quad
> Where the chemists speak only to physicists,
> And physicists speak only to God."

The clinical investigator is almost, if not fully, as familiar with laboratory findings as his colleagues in the basic sciences. But he travels less and his scientific observations are reported less frequently, for his "research materials" are not easy to procure and require longer study to obtain adequate data. He is, however, in a strategic position to act as a transmitter of important new knowledge to practicing physicians. He is equally familiar with the clinical problems in medicine. Most important of all, the highly qualified clinical investigator has a keen insight into the incredible difficulties involved in applying laboratory observations to the study of Man in his environment, and thereby reaching valid conclusions.

Despite his potential qualifications as a communicator, the clinical investigator also circulates in a rather restricted area. He may have few opportunities to reach the larger group of practicing physicians outside of those who specialize in his research area. Even when he has such an opportunity, his audience may not be sufficiently prepared to receive his message; for he may present it, as does his "basic" colleague, in terms so tentative or so esoteric that his audience cannot relate it in any useful way to their experience.

In recent years, there have been several encouraging moves to sink better shafts of communication between the "scientific community" and the "practicing fraternity." Most state and local medical groups are conducting short courses, with medical investigators as guest speakers, in addition to their annual assemblies. Such is the case in Michigan where numerous outstanding state and regional centers provide readily available resources.

Postgraduate courses of longer duration are being conducted for general practitioners and specialists at different medical research institutions by such organizations as the American College of Physicians, the Academy of General Practice, and others. These courses aim to bring small groups of practitioners into close contact with the outposts of medical research; but they serve another equally useful purpose by bringing research scientists into direct contact with medical practitioners. In order to communicate in a setting more intimate than that of the large assembly

or the printed page, the scientists perforce must try to do a better job of interpreting their own work and, in doing so, to see how it fits in with the hurly-burly of the busy practitioner's office.

"The Literature"

Most practicing physicians, however, must depend upon "the literature" to keep them abreast of medical research. If there is a *general* movement to make scientific reporting more comprehensible, more "literate," I have not observed it.

A recent report on enzyme research, for example, starts off like this:

> "In a recent publication, it was reported that, although an extract of rat liver nuclei formed UDPG and UDPGla from UTP and glucose-1-phosphate and glucosamine-1-phosphate, respectively, the formation of UDPAG from UTP and N-acetyl glucosamine-1-phosphate could not be demonstrated."[4]

This goes on for two columns of 8-point type. The authors defined the abbreviations in a footnote, but it didn't help me much to learn that UDPGla means uridine diphosphoglucosamine.

I have not chosen a glaring example. Robert V. Ormes in *Science* (April 26, 1957) analyzes the use of laboratory shorthand in articles and reports submitted to that periodical in the past two and one-half years. He finds that the 485 separate capital-letter abbreviations "have had at least 542 different meanings—we say 'at least' because 109 appeared without any explanation, and almost all of the other 376 appeared in at least one article without any explanation."[5]

As used by scientists, one abbreviation can have several startlingly different meanings, as BP for "before the present," "blood pressure," and "boiling point." Or different authors may use different abbreviations for the same meaning, as NA, NAA, N2A, and ANA for alpha-Napthaleneacetic acid. NA is also used for "nicotinamide."

Although Mr. Ormes pursues the elusive meanings of scientific abbreviations in humorous vein, he is dead right in his conclusion that:

> "The saving of space . . . is hardly worth the restriction of understanding, and only a few of these abbreviations can become any more than what they are, laboratory and notebook shorthand."

Such cryptic messages cannot whet the interest of practicing physicians, even of those specialists who may possess the key to the code. Unless the theories, methods, and observations of current medical research are presented to physicians in large enough perspective and with reasonable clarity, they will not be tempted to stretch their intellectual grasp of new concepts and new problems, in unfamiliar fields where there is no immediate promise of "practical results."

Some clinical and technical journals are making valiant efforts to improve scientific reporting for physicians. More papers, for example, now include background material on the significance of the research itself, as well as on the relevance of the findings to medical practice. Such journals as the *Annals of the New York Academy of Science,* the *Journal of American Medicine,* the *Journal of Chronic Diseases,* and others have taken to publishing an entire symposium in a single issue, thus bringing together a wealth of basic and clinical thought on a particular research field.

These are good beginnings, but the total output of medical research is still far beyond the physician's reach. Meanwhile, the number of secondary publications designed to condense scientific reports grows apace. These digests vary widely in coverage and quality.

At one end, we have such unassuming but remarkably useful publications as the *Bulletin on Rheumatic Diseases,* issued by the Arthritis and Rheumatism Foundation. It provides excellent brief reports of the most significant advances in that field, and recently it has added a series of special reports describing and evaluating laboratory techniques currently applied in the diagnosis of arthritic and rheumatic diseases. At the opposite end, we have a plethora of digests that restrict their coverage almost exclusively to reports on clinicial trials of new drugs. These can have but little more value for the physician truly interested in the widening front of medical science than are the entries in a box-top contest to "tell in 25 words or less why you prefer X's shaving Lotion."

Pressures for Practical Results

The physician, of course, must have access to the latest information on drugs and other commercial products used in his practice. Unfortunately, the "latest" (that is, the most recent item of "literature") is not always the best Thorough clinical evaluation of therapeutic agents is a long, costly, and often baffling process. If it is not done under the control of many fully trained and scientifically self-disciplined minds, working co-operatively in

many different clinical settings, the results may be unsatisfactory at best, and disastrous at worst.

The pressures that force many physicians to look first for "practical results" from medical research are many. Some are the frank demands of his patients. The mass media of public information seem to have done a better job of "selling" patients on some aspects of medical research than professional media have done in the continuing broad education of physicians. A few weeks ago that delightful cartoonist, Thomas Lichty, stated the physician's dilemma precisely. The doctor tells his secretary to leave the old medical journals in the reception room and bring the current popular magazines to his office. "I'm not going to have my patients knowing about the latest 'wonder drugs' before I do," he says.

Some of the pressures are more subtle. The physician's endless battle with time and, not infrequently, his unrest in the presence of so many medical problems that he is not equipped to solve on his own, make him a ready receptor of therapeutic methods recommended to him presumably on the basis of sound fundamental and clinical studies.

Dr. Edwin J. De Costa, in a recent issue of the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, illustrates how such recommendations reach the practicing physician.[6] He quotes an advertisement of "a so-called improved thyroid medication" and a statement from the professional literature, both tending to encourage "the use of thyroid extract in the presumed normal individual";—that is, the patient without demonstrated evidence of hypothyroidism. He then goes on to a thorough exposition of the available knowledge and methods pertaining to the thyroid gland and the various states of its malfunction in obstetrics and gynecology.

I mention this excellent paper not because I wish to introduce a clinical problem that has been a matter of controversy for many years; but because Dr. De Costa places the responsibility for questionable conclusions equally on physicians and on "those who make and sell the products."

The course of clinical and laboratory study, diagnosis, and therapy that he recommends to physicians is not the easy way. But it is based on the accumulation of significant scientific observations pertinent to the subject down to the current year. This more arduous way is the safest and shortest route between the outposts of medical research and the practicing physician's office.

Conclusion

The changing dimensions of medical science are presenting practice with new principles of pathogenesis. If these principles do not form part of the bedrock of the physician's thought, his approach to the medical problems confronting him may lead him into blind alleys.

The practicing physician needs help from his research colleagues and from all the resources of his own and allied professions to keep abreast of the widening front of medical science, and to utilize present and future techniques effectively. In the last analysis, his own initiative will determine how far he goes toward applying the contributions of science.

Some years ago, Sir Walter Langdon-Brown quoted a friend of his as saying that the famous aphorism "Don't think, try!" had been misinterpreted because "out of respect to John Hunter the medical profession for more than a century had been trying not to think."[7] I venture to suggest, in the light of medicine's enormous possession of sciences and techniques and its still greater potential, that the proper interpretation today is "Think—then try."

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The Self-destructive Factor in the Medical Patient

By Shervert H. Frazier, Jr., M.D., and
Adelaide M. Johnson, M.D.

Rochester, Minnesota

ALL MEDICAL MEN are quite familiar with the possibility of extremes of self-destructiveness in patients. Even though the practitioner may be unfamiliar with the complex emotions that operate, he is well aware of the facts of and hazard of actual suicide. Doctors in all fields are similarly alerted to self-destructiveness in less extreme form than suicide as evidenced by their desire to hear this less dramatic subject discussed by us today.

We hear the statement, "despite correct diagnosis and proper treatment some patients fail to improve as expected." We suggest that in such cases we have failed to make the full diagnosis and to institute the extent of treatment necessary. In other words, we may have overlooked the gamut of emotional conflicts operating self-destructively in the patient. Facets of the self-destructive drive may be conscious as in the overt act of suicide or in creation of factitial lesions. The driving conflicts and mechanisms behind the acts, however, are largely hidden from the patient's awareness. In the many cases we shall describe today, large or total factors in the drive to self-destructiveness are completely pushed out of the patient's conscious awareness because they are too painful.

With no intention of burdening the reader with complicated personality mechanisms, we do hope to introduce some clarity into the fundamentals of the drive to self-destructiveness. You will soon see that no one out of the blue wishes even partially to destroy himself or disrupt his bodily health in any way. We do not hold with any theory that man is born with an instinct to destroy himself. We believe that the drive to injure the self develops out of an adaptation to experiencing in early childhood destructiveness on the part of a significant adult. These experiences, and many of the mechanisms adapted to such experiences, become buried in the unconscious, far away from conscious awareness, but still drive your patient unwittingly to operate accordingly.

Let us explore how early experiences of a child induce all degrees of self-destructiveness. We know a great deal about this through detailed study and observations of the behavior going on between parents and children. Here we observe how a parent's conscious or deeply buried destructive hostility is directed toward the child and its effect on the child. Such transactions very early between parents and the young infant are far less well documented but they must have a profound effect on the sensitive early developing neurophysiologic structures.

However, for example, let us take what may go on steadily day by day between parents and a three-year-old child. In the symbiotic relationship with the mother, the child must learn to adjust to all facets of the mother's personality, healthy and unhealthy. Since in the child's helplessness he needs the mother for survival, the child *must* adapt to the mother's behavior. Any infant and child can stand moderate degrees of frustration and with comfort can adjust healthily to gradually increasing moderate frustration. If the child is guided firmly but with affection no serious conflict ensues. Every little child like any adult feels resentment when frustrated. This resentment can be handled by the mother in a healthy way or in a manner productive of conflict. If the parent remains firm about what she wants done by the child but permits him to talk and sputter a bit about his anger, all will go well.

If the mother, instead, becomes very harsh and punitive about the child's resentment, the parent can make the child very guilty. Depending upon the harshness of the mother's reproach the child can develop such a degree of guilt that con-

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Dr. Frazier is with the Section of Psychiatry of the Mayo Clinic, Rochester, Minnesota, and Dr. Johnson is Clinical Professor of Psychiatry, University of Minnesota.

sciously and less consciously he is continuously feeling he should atone for being naughty. The more frustrated he becomes, the anger, without outlet, mounts and because of the mother's tone and words and facial expressions, the child's guilt spirals upward. How is the need to atone handled in childhood and as years wear on? The little child may push himself to be very naughty in order to be spanked. With the latter punishment he often noticeably relaxes and is happier.

Again, when very guilty he may become subdued, depressed and withdraw from everyone and all activities. He may become the well-known martyr in relation to friends and family throughout his life. Or, he may complain of stomach ache, headache, vomit and be unable to retain food, may fail in school or may be accident-prone. He may automatically arrive at an awareness of some self-destructive psychosomatic respone that appeals to his mother or, at times, to the father. Illustrative are the cases of soiling until late childhood. The child and mother may feel miserable consciously, but underneath the child senses that the mother wants this soiling to continue. The mother derives gratification and the child achieves a distorted pleasure out of pleasing her, though he suffers with shame and misery in the presence of other adults and children. Only psychiatric help for parent and child will alleviate these malignant instances of soiling.

One can recite scores of forms of neurotic suffering and atonement in children. Older children, like the adolescent, may go on to suicide. We shall recount many cases in this paper to illustrate this self-punishing attitude in adult patients.

Let us not be deceived that the child or adult develops his symptoms and reactions in order to gain attention. He develops them to ease his guilt, to appease his parents and if he gains attention in his illness, this is a secondary outcome. To be sure, when such attention gratification is forthcoming, it becomes a catalytic agent in the already-established, vicious circle.

It would appear that with self-destructive, self-punitive, guilt-laden reactions in a child that concomitantly the parents direct a hostile destructive feeling toward the child. This has been proved unequivocally in many research studies. The self-punitive child is also angry at the parent, and thus self-destructive behavior or suicide can be and is, in part, retaliatory toward the parent. This is the revenge.

Report of Cases

Case 1.—We saw a brilliant thirty-two-year-old lawyer who came referred by his internist because though he weighed 380 pounds he could not reduce. The patient was a trial lawyer who consciously felt ashamed and miserable about his appearance both in court and socially. He was deeply interested in a fine young woman but was too ashamed and shy to approach her in any way but in a superficial social contact. He felt that he was destroying his real happiness in life because of his obesity. Fortunately he had an internist who did not intimidate and bedevil the patient who could not diet. In one interview the emotional structure of the problem became clear although it took three and one-half years of intensive treatment to lead to a slim figure and a happy marriage. This wealthy, eminently gifted lawyer lived with his mother, the father having died when the patient was eleven years old. The mother had told the patient as a child that she had never wanted more than two children—the patient was the third.

The mother was chronically nagging and critical in all areas but one. She loved to cook and eat and wanted the patient to enjoy her cooking. Only when he ate were he and his mother en rapport. Although he was a fine student, his mother still was not satisfied. Although she was wealthy and could in her old age afford a chauffeur, the mother interfered endlessly with plans of the patient so he would be her chauffeur. In his high school days when he was not so obese and still had some courage his mother sarcastically derogated every girl he dated. From earliest childhood the mother and father had harshly prohibited any expression of resentment from the patient, so that by the time one of us began treating him, he could never remember having talked up nor having stood his ground with his mother. In fact, he was not even conscious of feeling hostile until well along in treatment.

In other words, he was completely tied in a coercive, impossible, hostile relationship with his mother having only one outlet for accord and peace, namely, eating. In treatment as he resolved his conflicts, he freed himself from his mother, talked up firmly and moved to his own apartment. His mother became increasingly anxious and depressed—so much so that she had to have very definite psychiatric care. In this case it became quite evident that the patient was tied in a hostile submissive relationship to the mother, realizing only one modicum of peace with her and that was such overeating that it was destroying his chance for real future happiness.

Case 2.—A great deal of intensive research must be done on the baffling and, at times, fatal problem of anorexia nervosa. This is one of our current research interests and we are in no position yet to make detailed generalizations about all cases. However, one case (of many others) illustrates the conflicts that may underlie the profound self-destruction. In some cases the acuteness of the conflict is with the father, in others with the mother, but in all cases both parents are seriously involved by the destructiveness directed

toward the child. After a period of dieting in order to slim down, as is so frequent in these histories, this beautiful eighteen-year-old girl, popular with both sexes, finally went down to sixty-four pounds. She engaged in all of the common maneuvers—refusal to eat, hiding food, taking boxes of laxatives if she did eat, et cetera.

This girl's mother had had an explosively hateful relationship with her own mother. It was not surprising then that our patient had felt nothing but tension, criticism and coercion with her mother since earliest childhood. The only warmth she experienced came from her father. He had a miserable life with his wife and although very wealthy and prominent, he was quite unhappy.

As our patient entered adolescence her father, obviously a very neurotic man, entered into many sexual intimacies with the patient. The pathologic relationship extended to breast caressing and mutual genital handling as the patient sat on his lap. The father was blatantly acting out his incestuous feelings toward his beautiful daughter. The girl stopped dating because all sexuality became fused in her mind with her father. She put a stop to the intimacies with the father and reduced to the point of extreme emaciation. She was now no longer beautiful nor attractive to anyone, was ridden with guilt toward and fear of her mother, and although unconsciously fascinated by her father, was conciously enraged at him. As long as the unconscious sexual attachment to her father existed, she had to atone to her mother and defend herself by being ugly and wishing to die.

Although we have observed serious incestuous acting-out in a number of the anorexia nervosa cases, we do not wish to convey, in any sense, the impression that this is the constellation of conflicts underlying all cases.

One of our internists who knows far more of the medical care of these patients than do we psychiatrists began treating the patient medically with his firm, kindly, fatherly manner. After an initial improvement, the patient went downhill rapidly. There was no doubt that the patient soon fused the internist with her seductive father, unconsciously, and had to resort to her old defense of not eating to atone for and ward off her unconscious wishes that the internist seduce her. The patient finally had to be treated by a psychiatrist.

Case 3.—As Karl Menninger has said, "Alcoholism is a chronic attenuated form of self-destruction." Each alcoholic patient obviously must be studied to understand and cure his illness. The fact that one psychoanalyst analyzes three cases and finds in each a profound homosexual problem should give no license to conclude that this is the basic conflict in all alcoholics. This is not the case and in those cases where such a conflict is prominent, that is not the entire basic story.

A woman patient was reared in an atmosphere of great coldness and distance on the part of her mother. At the same time, no word of resentment by the child was ever allowed expression. This patient was an alcoholic who also became suicidally depressed. She was an inordinately guilty person about her great unconscious hostility. Her father had always been far too seductive with her and depreciated the mother to the girl. The child was always very neurotic and by college days had a great deal of free floating anxiety. The mother said that she would rather the girl would take alcohol than smoke. The patient, seeking a physician about her anxiety, was told that she should drink some to take the edge off the anxiety. The father continued to be seductive even long after the girl was married. At the same time he hated her drinking and was very ashamed of her. She had to be hospitalized for a long period early in her psychiatric treatment. In brief, never having had security with her mother the patient guiltily hated her mother and in addition was guilty toward the mother over her childish attachment to her father.

The girl followed the mother's destructive suggestion that she take alcohol to dilute anxiety. Her alcoholism not only fulfilled a suffering atonement for her hate toward the destructive cold mother but also warded off the seductive father, who was ashamed of her degrading alcoholism.

It may not be amiss to remind the reader that much of this patient's feelings toward both parents was unconscious until far along in the treatment. It was because she had always been made to feel guilty about resentment that she repressed it. Thus the patient had no conscious awareness early in therapy as to the reasons she was destroying herself with alcohol. And indeed for a period she came close to the brink because of severe liver damage.

Case 4.—An eighteen-year-old son of a Greek family was an immature, indecisive, obese diabetic who kept himself constantly out of diabetic control because of "my rebellion against diabetes." As a young adolescent, he alternately used his metabolic disease to obtain his mother's favor and then to elicit her rejection. He stated that he felt the urge to "let himself have it" after his mother's tirades against his excessive intake of candy and food and on several occasions was precomatose and acidotic. Joseph was the subject of many sadistic beatings by his father, yet when we first saw him he declared for several months the "great love I have for my father." The patient had some courage to fight his father and once after further inciting his father's rage, the latter had a stroke and died. Since this father usually atoned for beating his son with elaborate gifts, trips and attention, the boy had great guilt about expressing his rage. These phases of guilt were frequently associated with acidosis.

In treatment the patient analyzed and lived through with his male therapist his rage and guilt toward the father. As the patient finally learned to depend upon a consistently friendly but firm therapist the diabetes came under control. Having so many of his dependency feelings resolved and satisfied by his therapist he had less need to turn to the mother who was so inconsistent. Finally the boy came to realize affection and consideration from his therapist without first having to experience a beating or acidosis.

Case 5.—A sixteen-year-old high school girl was seen because of extensive hemorrhages into her skin. The

hematologists, dermatologists and orthopedists made extensive investigations into the possible purpuric nature of these lesions. Negative laboratory findings and clinical opinion suggested that the lesions were quite atypical and psychiatric evaluation was requested. Clara had been a sickly child requiring several periods of hospitalization. Such medical care for what appeared to be functional complaints always resulted in the cessation of symptoms. The mother, basically resentful of this child, was always overprotective, nagging but especially oversolicitous when the patient was in the hospital.

Collaborative psychiatric study of the patient, mother and father revealed the fact that the mother suspected that Clara was pounding her extremities in her sleep, thus producing the lesions. The mother had actually seen one of Clara's nightmares when she was pricking and pounding her legs. The mother strangely enough did not awaken the child nor even tell her what went on in sleep. The malignant destructive wishes of the mother toward the child were easily exposed with the help of the mother's therapist. The child working with her therapist was able to realize consciously the self-destructive feelings she had as a result of her violent hate toward her mother. The skin lesions cleared as the patient resolved her conflicts and her mother, through therapy, was able to live a more friendly satisfying life with the daughter.

Case 6.—A twenty-five-year-old man from Montana was "plagued with" thromboangiitis obliterans. The ulcer over the medial malleolus was small on admission, but rapidly enlarged overnight when the patient's very severe pain became intensified while angry at the floor nurse who overlooked giving the man one dose of levo-dromoran. The patient was noticeably agitated but was unable to express his feelings of anger about this oversight. Upon noticing the considerable enlargement of the ulcer the physician pointed out to the patient that as he was rubbing his right great toe his fingernail was rubbing the ulcer. The patient refused to believe this. Similarly, he refused to stay in bed or to elevate the extremity, with the result that induration ensued.

The self-destructive components in this patient's behavior demanded that he have intensive psychotherapy. In such treatment, the patient was able to recall the hostile feelings he had toward his father who kicked him "in the pants" recurrently when he was a boy, because of the patient's inability to carry his share of the farm work even when seven or eight years of age. The brutality of the father toward this patient and the boy's murderous rage toward the father appeared. He longed to kick the parent as he, the patient, had been kicked. As these impulses came to awareness with no reproach from his male therapist the pain subsided greatly. With the death of his mother when he was five he could turn only to his older sister for affection and consideration after the father's beatings and because he had no trust in men. As many of these feelings were worked through in therapy the patient became tractable, pain lessened, he stayed in bed and the ulcer healed. Of course, the Buerger's disease was more easily controlled because of diminished pain, and when the patient no longer felt in such a guilty self-destructive mood the realistic threat of amputation was a considerable impetus to his following out the internist's advice.

Case 7.—A thirteen-year-old boy came to us with a history of twenty-four accidents involving either fractures or lacerations requiring surgery. We saw him after he had been shot by an adolescent friend while the two boys were threatening each other. This patient had been made excessively guilty about his resentful feelings as a child and during the early years he handled these by withdrawal and depression. As years went on, the patient was hostilely provoked and taunted to be very tough and foolishly brave by his father; this boy began to handle his depressions and guilt by placing himself in excessively dangerous spots. This reckless self-destructive behavior fostered by the father resulted in near-tragedy several times. The boy after considerable and long psychotherapy is making an excellent adjustment. The accident-prone patient is readily recognized today by most physicians.

Case 8.—A thirteen-year-old came to us complaining of loss of hair from eyebrows and scalp in areas showing ragged borders. She was wearing a cap. The mother told of finding hair in the child's bed after each night's sleep. The patient had had the habit of twisting her hair as a child (four to twelve years of age) and biting her nails whenever she was unable to express her anger to her very domineering and harsh mother. The mother held rigidly taut reins on this child, requiring her home from school very precisely, allowing her no time from home to have friends or even play with other children. The mother threatened all of her three children with the scissors whenever she was irritated with them. She admitted that she never allowed them, however, to express any anger in any form. There seemed to be only one thing about this girl that from early childhood pleased the mother. This was the child's beautiful hair which the mother always combed lovingly and with pride. The mother was horrified to find the bald spots and thinning of this hair. The hostility this adolescent felt toward her mother found its punitive outlet in ruining the hair which was the mother's pride and joy. Although the patient consciously disliked her appearance, the revenge was worth it. The mother and child both had to have psychiatric treatment.

Case 9.—A forty-two-year-old woman who, since the age of twenty years, had had thirty-six surgical operations because of pain was seen. In every instance except two, according to the records, no satisfactory organic explanation was forthcoming. This was a case of a very self-destructive patient who visited physicians to play one consultant against the other. Initially, she was furious at the suggestion that she should see a psychiatrist and angrily told the psychiatrist that hers was a very happy family and that she had had a short but happy marriage. Later the psychiatrist learned from

(Continued on Page 409)

Editorial

MEDICINE—PROGRESSIVELY PREVENTIVE

Among the most significant achievements of the last half century has been the tremendous interest in health aroused in the general public. From an era when a small band of resourceful, imaginative people, dissatisfied with the status quo, launched attacks against a few diseases, we have come to a constantly waged war on disease by a large standing army recruited from the lay public. leadership in this campaign has been rightfully entrusted to the medical and public health professions, to the press, radio and television. The rôle fulfilled by organized medicine, national in its scope, reaches down to the individual physician wherever he may be located.

State Medical Societies, as units of the national organization, have had for many years Committees on Preventive Medicine to guide and integrate the activities of numerous specialized joint committees. These deal with every known phase of disease prevention and treatment, from the infectious to the degenerative, an important part of their duties being concerned with enlightening the practicing physician and through him his patients.

It is to the unremitting efforts of these devoted grass roots committee members that this special number of The Journal is dedicated. The manuscripts submitted, representing but a small cross-section of the many problems under consideration, demonstrate the constant and serious concern with both the present and future health of the public.

William S. Reveno, M.D.

MEDICAL EVOLUTION

Every practitioner of medicine is or should be familiar with the Hippocratic Oath. Every one is supposed to have taken that oath when he received his degree in medicine. Most doctors have a copy of it framed and hanging on their wall. For countless generations that was the guide stone and code of practice of every responsible medical man. There were very few medical schools and the men who wished to practice medicine must of necessity study with an older man, a preceptor, who taught him the "art and science of medicine." As our country, population, needs for medical services grew, medical schools developed, and a majority of prospective doctors studied in them. Some of these schools were remarkably good institutions, while some were purely commercial affairs whose objectives were to teach new doctors, collect fees for the service and extend the reputation of the teacher.

Toward the end of the 19th century, it became evident there must be some regulation of the practice of medicine. Our state legislatures established medical practice laws, setting up examining boards, established requirements of study and then issued licenses to practice. The license qualified a man to practice "medicine and surgery and midwifery." In the early years of this present century, the Carnegie Foundation made a study of medical schools (Flexner Report) to determine whether they were actually equipped and were giving sufficiently good training so that their graduates would be competent. The immediate result was a reduction in the number of medical schools, a great improvement in the training and education and the establishment of a standard four year course of study instead of the one or two or three which had been the previous rule.

Self Limitation

At first, every doctor, as his license said, was a general practitioner. He did the things necessary to take care of his patients. As medical knowledge grew and the possible services increased, certain fields in medical practice and certain men became more prominent. Some doctors became known as surgeons, eye, ear, nose, and throat specialists, neurologists. Most general practitioners still rendered all services but referred the complicated cases to the ever-increasing number of "specialists." There seemed no adequate way to control this tendency from the standpoint of the police power of the state. The medical profession early began to set up its own controls. It voluntarily established the American College of Surgeons, and later the American College of Physicians, with certain additional educational requirements and the passing of qualifying examinations to determine whether an applicant was quali-

Medical Education Week

This number of THE JOURNAL is dedicated to Preventive Medicine and the Committee and authors are to be complimented on the splendid result that is before you.

This phase of medicine is one of the most important aspects of health insofar as the public is concerned. Also, to us. However, we appreciate that there are other facets in the overall picture of good medical and health care to be given to the people of our great nation.

The week of April 20-26 has been designated as "Medical Education Week." This will be observed throughout the nation and will be co-sponsored by the AMA, the Association of American Medical Colleges, The Woman's Auxiliary to the AMA, The Student AMA, The American Medical Education Foundation, The National Fund for Medical Education, and your State Society.

Each local society, through its Public Relations Committee and its officers, is charged with the responsibility of bringing to the public the full scope of what medical education is achieving. Pressure from many sides for someone outside the medical profession to assume and direct the complete control of not only the availability, but also the development of adequate medical coverage, makes it imperative that each of us do our part in this program.

This is not only an immediate task but also one of a continuous nature—for what we do now may be in a "preventive" sense for the future, in that we preserve for the people the finest medical care of any nation on this globe.

This may be one of the few remaining bulwarks of Free Enterprise, but I believe in fighting for it!

Geo. K. Slagle.

President, Michigan State Medical Society

President's



Message

fied for this restricted specialty. He was then supposed to confine himself to that particular field. Soon the need developed for much more extensive restrictions. Specialty societies were organized, as well as specialty sections in the American Medical Association and the state medical societies. The College of Surgery and the College of Physicians soon followed, with the establishment of a Specialty Board, then another. There are now nineteen with one in General Practice brewing. The 1910 decade and the 1920's saw this deevlopment.

These Specialty Boards, the College of Surgeons, the College of Physicians, set up their own standards for the people who wished to practice in their special field. Our hospitals were very soon happy to adopt these same regulations, urged their staff members to become departmentalized and to accept these standards or their equivalent as criteria for practicing in the hospital.

From the medical profession standpoint, this has been an entirely voluntary self control found to be necessary for the protection of our patients and because there was and is no regulation in the fundamental laws under which we are practicing. It seemed to be impossible to accomplish this purpose through legislative action. The medical profession set up its own regulation through the medical societies, national, state and local as well as the specialty societies—all for our own internal functioning. Staffs of the various hospitals throughout the nation, in order to carry through the increased responsibility, increased ability, and to insure that their patients should be exposed only to the very best and most highly trained service, set up rules and regulations restricting every doctor practicing in the hospital. He was required to conform, to make records, to attend meetings, to do preparatory study if he wished to do special work.

A Changing Scene?

Much of the picture which has just been painted occurred long before the majority of our doctors ever started practice. In fact, most of this self-regulation had developed during the years when the practice of medicine was a dedication of each physician to his own group of patients. A young man entering practice used to work for years before he had established sufficient clientele to earn even a decent living. From five up to ten years was considered the ordinary probationary period for a man to make his reputation, demonstrate his abilities and attract enough patients to be comfortable. During most of those years, the general economy of the nation was such that only a comparatively small percentage of the people could afford or pay for the constantly improving and extending medical services which were becoming available. The depression years of the 1930's and the early 1940's exemplified the fact that when a great social need occurs a solution will inevitably follow.

During these years, the medical profession—not the national body, but the local hard-working group in direct contact with tragic distress, evolved and established the theory of providing absolutely essential medical care for these people through the principles of prepaid insurance. This was an absolutely new philosophy which the insurance people had declined, believing it could not work. The national medical society frowned, but the local pioneers were experiencing tremendous economic pressure and were willing personally to take chances and guarantee services which insurance experts said could not be done. These local groups established the prepayment medical service programs—for hospitals as well as the medical profession.

Our Blue Shield was born of necessity and desperation, and in its forming we had a tremendous part in changing the philosophy of the whole American nation by which so many are now budgeting for their major requirements.

WHAT OF THE FUTURE?

We have a Supreme Court decision in Michigan denying the right of the medical staff of certain hospitals to require standards of perfection, education, training or willingness to conform to rules regarding care, records, and other matters pertaining to patients. It states that the only authority to curb the practice of a physician in any way in this group of hospitals is in the legislature or in the State Board of Registration in Medicine which licensed the physician. Although this decision applied specifically only to a few small county hospitals, the decision was scarcely made when Wm. A. Kopprasch, M.D., of Allegan, brought suit against the Michigan State Medical Society, the Allegan County Medical Society, the Michigan Hospital Association and the Allegan Health Center (a hospital), claiming $750,000 damages and conspiracy to prevent him from

practicing in the Health Center. This suit sought, by analogy, to extend the unlimited right to practice in hospitals without regulation or control, far beyond that recognized by the Supreme Court in the county hospital case.

The original bill of complaint was filed January 17, 1955. In November, 1957, the trial judge absolved the Michigan State Medical Society, the Michigan Hospital Association and the Allegan County Medical Society as defendants. At our latest information, this case had not yet been terminated.*

On November 22, *AAPS Information Bulletin* reported a damage suit filed in Colorado. Two United Mine Workers salaried physicians filed suit against the Las Animas County Medical Society (Trinidad, Colorado) for $75,000 damages to each of the two physicians who have been rendering medical services to the beneficiaries of the UMW fund, alleging the two "approved" physicians were denied membership in the County Medical Society. The officials of the United Mine Workers retain and exercise the right to select "approved" doctors to care for their patients and refuse to pay others, but apparently, they hold that the County Medical Society has no right to "select" and "approve" doctors for membership in the Society.

The *Detroit Free Press* of January 11, 1958, contains a long story of Neil H. Sullenberger, M.D., who was threatened with suspension from the staff of Pontiac General Hospital on November 13. On December 2, 1957, he sued to prevent suspension and asked $250,000 damages. In answering the suit on December 31, 1957, the hospital superintendent listed twenty-five cases of alleged violation of hospital standards, in six of which cases the patient died. This case was also abstracted by *Time*, January 20, 1958. It is reported there is another suit of four general practitioners trying to compel the Pontiac hospital to accept them for unlimited surgery.

It has been the custom of every hospital of any standing and the requirement of The Joint Hospital Accrediting Boards previously conducted by the AMA, the American Hospital Association, or the American College of Surgeons, to set certain requirements or principles governing preparation, experience, willingness to work, to respect the rules regarding records, procedures, et cetera. This procedure has been generally accepted by our doctors, by the College of Surgeons members, by the American Medical Association members, and our county and state medical society members, as well as the staffs.

Doctors, in increasing numbers apparently are attempting to bypass all the constructive work of the medical profession in the last half century. The state licensing boards simply determine whether the man had studied medicine and could answer some questions. There is no way of determining his competence. His license gives him the supposed "right" to do anything in the field of medicine. The growth of the science of medicine and the accomplishments of the last half century are so absolutely astounding, that no one man could accomplish them all; no medical school could teach them all in the four-year course and one-year internship. In the very nature of things, some restraint must be exerted. That is the reason for the establishment of the various surgical and specialty boards and the adoption of rules and regulations for use in the hospital.

The new group, who are making unfounded and uncontrolled demands for unlimited rights to practice, are posing a problem our profession must face. After a half century of progress must we now turn all of those rules and regulations, accomplishments against great odds, and controls over to the government? If that must be done, medicine will have lost its last shred of independence when some bureaucrat determines the rules under which we work and sets up restraints to keep us in line. We shall have lost the fight.

One case in our Michigan Supreme Court was lost. We must not lose another. The majority of our hospitals can still make just rules, assuring the patients the best possible medical attention available. If some of these recent threats should prevail, that last restraint will be gone. The Michigan State Medical Society was not mentioned in these suits but is involved, and we hope will be allowed to argue its side of the case.

The Michigan medical profession, as in so many issues in the past, is again fighting for the rights and protection of the health of the people of our state. We brought them relief from poorly

*On January 31, 1958, Circuit Judge Raymond L. Smith ruled that Dr. Wm. A. Kopprasch was legally entitled to membership on the medical staff at Allegan Health Center, subject to its by-laws. The judge said "the Health Center had been unable to come up with any case of malpractice, unprofessional conduct or lack of ability to support its failure to admit Dr. Kopprasch to the staff."

trained doctors in the early years of the century under the goading of the Carnegie Foundation; we made available to them by prepayment the major and essential health services during and after the great depression years; this last year, we have undertaken another study to determine what the people want and desire in extended and improved prepayment medical care; what the doctors believe can and should be rendered; and what both feel should be the costs.

The result of that "market survey" is now largely incorporated in new policies being offered by Michigan Medical Service. These policies are so broad, so flexible, and so all-inclusive, that any group may protect for almost any type of program it wishes, including the benefit of partial payment or co-insurance; if it wishes, it may provide for complete coverage.

The medical profession has met these problems as they have arisen and has always found enough far-thinking, dedicated members willing to give time, strength, and genius to working out presumably unsolvable problems. We pray this innate ability in the medical profession will stay with us through the trying years and problems we are facing. We have always had complete confidence, have always believed that right will prevail. Nature always provides a stalwart form to carry on when some predecessor falls by the wayside.

PRINCIPLES FULLY IMPLEMENTED

What has happened since the House of Delegates unanimously adopted the new Principles of Medical Care Insurance last September? Are these principles being implemented? We find that much has transpired and that methods are being developed to carry out the principles.

The Medical Care Insurance Committee (MCIC) was appointed and has met for long hours on several occasions. To it has been presented the proposed new contracts of Michigan Medical Service (Blue Shield). These contracts have been examined in meticulous detail by the MCIC and found to adhere scrupulously to the Principles. The Council of the Michigan State Medical Society has approved the recommendation for endorsement.

The California Relative Value Scale has been examined, and, with very few modifications, has been approved by the Council for use, as set forth in the Principles, as a basis for the Dollar Allowances to be used in the new MMS contracts. Unit values for each of the contracts have been established and approved by the Council.

We learn that the new fees will demonstrate an increase of about 11 per cent in the new $5,000 contract over the old. In the Opinion Survey, physicians overwhelmingly favored a $7,500 contract provided there was an increase in the fee schedule of 32 per cent. We learn that the new $7,500 contract will have a fee schedule that is about 31 per cent greater than that of the old $5,000 contract.

It is to be noted that the premium cost to the subscriber has been kept within realistic limits. This we regard as truly remarkable when one contemplates the broad increase in benefits, the new method of determining income-level, and the completely fair method developed for determining fees.

Many complex problems have been dealt with in developing a program that will bring forth contracts that will be fair and satisfying to the patients, to the physician, to the carrier.

We congratulate The Council, the Medical Care Insurance Committee and the Michigan Medical Service for the dispatch with which they have implemented the principles.

Much has happened since the House of Delegates issued its mandate.

IS BLUE SHIELD A "THIRD PARTY"?

"Blue Shield Plans exist only to help the medical profession facilitate the provision of its services to the people. . . . Blue Shield is an organization of the profession itself, and not a third party between doctor and patient."

So declared the Blue Shield Commission in a recent policy statement. The Commission is the elected board of directors of the national association, "Blue Shield Medical Care Plans," whose members are the seventy-odd medical society-sponsored, nonprofit Blue Shield Plans. A preponderant majority of the Commissioners are doctors of medicine.

The medical profession, through its own instrument, Blue Shield, pioneered the great uncharted realm of medical prepayment at a time when commercial insurance companies declared it was actuarially impossible, and when the bureaucrats in Washington asserted that only big government could do the job.

What is a "third party between doctor and patient?" In simplest terms, a "third party" must be some person or agency over whom neither the first party—the patient—nor the second party—the doctor—has any direct control; someone independent of both doctor and patient.

The first requirement of a medical prepayment plan that wants to call itself Blue Shield is that it be approved by the county or state society in the area that it serves. The second requirement is that all medical policies and operations be under medical control; and the third, that it earn the voluntary participation of at least a majority of the doctors in its territory.

Blue Shield is not a "third party." In truth, Blue Shield has proved that doctors and patients, working together, can solve the problems of medical economics without needing any third party to come between them.

SEEING ONLY THE TREES

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physician either in manner of payment or amount of fee for the rendered service. This presents many obvious hazards: viz, an *ex-cathedra* dictum might destroy more than it is worth.

Somehow we need to remember that the prepayment plans were Medicine's answer to the threat of governmental medicine. They did answer this challenge and their real worth to all concerned is substantially greater than all these pages could recount. This dynamic state has created, in turn, a social philosophy which now is part and parcel of mid-century America. But the old threat is still with us—from government or from consumer groups. This is the broad arena—the center ring—and if the little things divert us now we may well miss the forest.—William Bromme, *Detroit Medical News,* February 3, 1958.

Few projects before the American people are of greater importance than the matter of cancer control.

* * *

Although details of deaths from cancer are available, details of all cases of cancer are needed to complete knowledge of the disease.

SELF-DESTRUCTIVE FACTOR

(Continued from Page 403)

the patient that her husband was an ex-convict, her father a brutal alcoholic, and her mother a cold, rejecting, hostile woman. The brother was a sadist like his father who continued to the present to have brutal temper tantrums. The patient had never had any satisfactory outlet for her own fear and resentment. There had been no warmth nor consideration expressed toward her by any family member. Her mounting loneliness, tension, rage and guilt led to pain which secondarily elicited consideration and solicitude on the part of nurses and doctors. The secondary gain only helped to fixate her profound necessity to atone for murderous wishes through surgery. Following surgery each time her tension and guilt were relieved and temporarily her mood was excellent. As the relief through the atonement of surgery wore off, the pains returned.

Case 10.—Sometimes patients recover much more rapidly after surgery and appear in a far happier mood than is normal. We were treating a woman in a deep depression. She developed sudden severe uterine bleeding. Diagnostic study resulted in the decision to do a hysterectomy. The patient was very happy after surgery and for two months all of her old interests in the family and community returned. Hysterectomy to her meant punishment, personal sacrifice and atonement. Thus, for a time, her deep-seated guilt and self-destructiveness were satisfied. It was no surprise to her psychiatrist, however, when the old depression and guilt returned. This was a woman who for years enjoyed the fantasy that she would be completely crippled with arthritis. Only careful psychiatric study will reveal hidden emotional factors that may underlie slow or very rapid apparent improvement with surgery or other organic disease.

Summary

Early in life children may develop great guilt about their hostile feelings because the parents can permit no overt expression of any resentment from the child. Even though the parents obstruct any expression the child cannot help feeling anger at times. He must repress it and conscious and unconscious feelings of guilt, and need to atone may direct his total economy, emotionally and psychosomatically. Such unconscious guilt and need to punish the self lead to all degrees of self-destructive behavior and psychosomatic pathology which may confuse and obscure the picture. This confusion is especially baffling when organic disease is also present. Successful therapy in surgery and medicine, then, will of necessity include consideration of the patient's total health, organic and emotional.

The Bold New Look

AMA Reorganization Plan Shaped by Delegates in Philadelphia

When a small group of scientists met in Philadelphia 110 years ago seeking to improve the practice of medicine from within and to increase respect for the profession from without, their efforts resulted in the birth of the American Medical Association.

In December, 1957, a larger, but no less dedicated group gathered in the City of Brotherly Love and approved a modern blueprint for streamlining the management of the now great AMA.



The recommended changes were presented to the policy-making House of Delegates by Michigan's able William A. Hyland, M.D., of Grand Rapids, chairman of the five-man committee assigned to study possibilities of improving AMA managerial practices.

Medical science and the times have altered since the founding of the AMA more than a century ago. To see just how much they have changed, and how well the AMA had adapted itself, an organizational survey was ordered by the Association to cover all phases of its activities and functions. It was conducted by a private research firm, Robert Heller Associates, of Cleveland.

Heller Report

The Heller Report, as the survey was called, recommended modernization of various managerial practices and formations which the researchers believed were antiquated. The constructiveness of the overall report was recognized, but its all-inclusiveness meant that thorough study by M.D.'s was necessary so that the findings might be viewed in light of the medical profession's unique requirements.

The Report seemed to say that, like Topsy, the world's largest medical organization just grew.

It has grown until today the American Medical Association has a membership of over 160,000, lists scientific and socio-economic committees by the score, and employs a staff of doctors and lay persons who fill nine floors of the headquarters building in downtown Chicago.

In recent years, the AMA has been alarmed at its ever-increasing overhead expense. Portions of the Heller Report advised methods of reducing expense and increasing commercial income. Not being of major policy importance, some of these and other recommendations were referred to and adopted by the AMA Board of Trustees.

Great importance, however, was attached to the survey's revelation that the AMA was a trifle muscle-bound when it came to making quick policy decisions. The Heller Report indicated that a revision of the chain of command might speed up corporate reflexes.

Executive Vice President Recommended

The Hyland Committee recommended the appointment of an executive vice president as the chief staff officer responsible to the Board of Trustees and urged that the General Manager's position be eliminated. The Board will continue being responsible to the House of Delegates.

Another adopted recommendation combined the duties of the secretary and treasurer into an appointive post to be filled by a Trustee, thus separating the duties of the Secretary-Treasurer from the Executive Vice President.

Another highlight of the Philadelphia action favored discontinuance of the office of Assistant Secretary but paved the way for the creation of the post of Assistant Executive Vice President.

In addition, it was agreed that the Council on Medical Education and Hospitals and the Council on Medical Service should continue in all respects as standing committees of the House of Delegates, though the administrative direction was to come from the Executive Vice President.

The Delegates also approved the recommendation limiting the voting members of the Board of Trustees to eleven (nine members, the President and President-Elect). The AMA Vice President, House Speaker and Vice Speaker were authorized to attend all Board meetings but without voting privileges.

Because of high interest among Delegates regarding a proposed change in method of electing the Trustees, the question was left to a floor vote. The House voted that the election of the individual trustees should continue to be based upon an at-large nationwide principle and not upon representation from specific physician-population areas of the country.

Continuing Review Committee Approved

The Hyland Committee did not leave the impression with the Delegates that the improved AMA managerial operation was now cast in a permanent and unbreakable mold. On the contrary, they recommended that a continuing committee be established to consider redefinition of AMA scientific and basic programs, to place more emphasis on scientific activities, and to study socio-economic problems while taking the lead in creating more cohesion among national medical societies.

Thus, modern business practice was brought to organized medicine, reflecting the Hyland Committee's awareness that there are only two kinds of organizations, the quick and the dead.

In the true striped-pants school of diplomacy, the Hyland Committee report succeeded in accomplishing the desired goals without alienating any group or individuals. This was no mean task but it was essential if the modernization was to take place.

In Doctor Hyland's own words, "In our visits with so many of the officers and personnel of the AMA, this committee obtained an impression of a vibrant human element that is rare within organizational structures. With such a devoted group, there can be little doubt that the AMA will reach the heights we all wish it to attain. It is this committee's fondest hope that recommendations based upon the Heller Study will forge a closeness of feeling between the House of Delegates, the officers and the Board of Trustees. We believe that there must be no barrier to mutual understanding, co-operation and respect; therefore in the suggested reorganization, the House loses none of its prerogatives, nor is the decision-making ability of the Board lessened in any degree."

Dr. Pino Pioneered Progress

For Michigan to play a leading role in the Heller Report and subsequent House action is no accident. Years ago, Ralph H. Pino, M.D., of Detroit, urged that the AMA be reorganized on a big business basis. This was considered a drastic proposal in its day. But Doctor Pino persisted in his point and helped prepare the basic groundwork which culminated in the 1957 modernization program.

Principal among those who early recognized the need for re-evaluation was Doctor Hyland—surgeon, diplomat and public-minded physician with business acuity to spare.

An eminent surgeon, Doctor Hyland is a rare blend of the scientific and the socio-economic. Said MSMS president George W. Slagle, M.D.: "Doctor Hyland was uniquely qualified for the task assigned to him in studying the Heller Report. His diplomacy was needed in fullest measure. He has achieved an unusual balance and combination of science and economics through years of leadership in medical and voluntary health organization and through constant study of the scientific advancement of medicine."

After graduating from Georgetown University School of Medicine, the Grand Rapids doctor trained in this country and in Switzerland where his interest in thyroid disease began. Returning to the United States just before the outbreak of World War I, he served with the Office of the Surgeon General experiencing the red-tape and frustrations of government service.

Doctor Hyland's interest in thyroid led him to cancer and surgery and he long ago was certified by the American Board of Surgery; both the American and the International College of Surgeons claim him as member.

MSMS President Hyland (1946)

Organization-wise, Doctor Hyland has come up through the ranks, hit the top, and there has

(Continued on Page 430)

Michigan State Medical Society

Annual Session of The Council

January 31—February 1, 1958

HIGHLIGHTS

- The Auditor's Report for the year 1957 and the budgets for 1958 were approved (see page 426).
- Annual Reports of the Secretary, Treasurer and Editor were presented, thoroughly discussed by Reference Committees, and approved.
 Reports of the three Standing Committees of The Council (County Societies, Finance, Publication) meetings of January 30, 1958, were accepted. The Council Commended the Publication Committee and Editor Wilfrid Haughey, M.D., for the national recognition being accorded JMSMS—a leader in the State Medical Journal field.
- Secretary L. Fernald Foster, M.D., Detroit; Treasurer Wm. A. Hyland, M.D., Grand Rapids; and Editor Wilfrid Haughey, M.D., Battle Creek, were re-elected for 1958.
- Progress Report on Michigan Medical Service was presented by MMS President L. Fernald Foster, M.D.
- Progress Report of Michigan Hospital Service was given by John B. Lord, President; and commented on by Wm. S. McNary, Vice-President, of Michigan's Blue Cross.
- Annual Reports of individual Councilors on the condition of the profession in their Districts were presented.
- Monthly Reports of Council Chairman D. Bruce Wiley, M.D., Utica; President George W. Slagle, M.D., Battle Creek; President-Elect G. B. Saltonstall, M.D., Charlevoix; Secretary L. Fernald Foster, M.D., Detroit; Speaker K. H. Johnson, M.D., Lansing, were presented and accepted.
- Committee on "Big Look": Chairman W. S. Jones, M.D., reported that the architectural associates, Yamasaki and Leinweber of Royal Oak, Michigan, had been selected to aid the Committee on Site in the selection of an appropriate location in the greater Lansing area for the new MSMS headquarters, and to design and erect said building.
- Beaumont Memorial: recent contributions to the new Beaumont Memorial Foundation from MSMS members totaled $2,600.00. A report on the January 30 meetings of the Beaumont Memorial Foundation Membership and of its Board of Directors was presented by BMF President Otto O. Beck, M.D., of Birmingham, who urged that all Michigan physicians become Life Members ($100.00) or Sustaining Members ($5.00 per annum) of the Foundation.
- Committee Reports were presented by: (1) Legislative Committee, meeting of January 23; (2) Committee on Blood Banks, December 14 (and minutes of North Central Blood Bank Committee, November 4); (3) Committee on Uniform Fee Schedule for Governmental Agencies, December 22; (4) Committee on Tuberculosis Control, January 8; (5) Medical Care Insurance Committee, January 18; (6) Industrial Health Committee, January 8; (7) Preventive Medicine Committee, January 9; (8) Committee on Closed Circuit Color Television for 1958 Michigan Clinical Institute, meeting of January 13; (9) Liaison Committee with the Michigan State Board of Registration in Medicine, January 15; (10) Michigan Cancer Co-ordinating Committee, January 23; (11) Medical Advisory Committee to Michigan Hospital Service, January 16; (12) Arbitration Committee, January 24; (13) Permanent Conference Committee, January 22; (14) Postgraduate Medical Education Committee, January 16; (15) Liaison Committee with Michigan Academy of General Practice, January 30; (16) Committee on Awards, January 31.

- J. J. Lightbody, M.D., Detroit (Vice Speaker of the MSMS House of Delegates), was authorized to furnish the MSMS field secretary's office in the new Wayne County Medical Society building.
- Appointments: (1) Mediation Committee (authorized by 1957 House of Delegates): L. R. Leader, M.D., Detroit, Chairman; D. R. Boyd, M.D., Muskegon; A. E. Gamon, M.D., Saginaw; Jack Hoogerhyde, M.D., Grand Rapids; E. B. Johnson, M.D., Allegan; David McTaggart, M.D., Flint; and R. W. Teed, M.D., Ann Arbor. (2) Special Committee on Committees (authorized by 1957 House of Delegates): G. W. Slagle, M.D., Chairman, Battle Creek; L. Fernald Foster, M.D., Detroit; K. H. Johnson, M.D., Lansing; G. B. Saltonstall, M.D., Charlevoix; and D. Bruce Wiley, M.D., Utica. (3) MSMS Representatives to Michigan Health Council: J. H. Meyer, M.D., was appointed as Delegate and E. S. Oldham, M.D., as Alternate Delegate to Michigan Health Council. (4) R. W. Bailey, M.D., of Ann Arbor, was appointed a member of the Child Welfare Committee (and also of the Sub-Committee on School Health Problems). (5) MSMS Representatives to Medicare re-negotiation meetings, Washington, D. C., March 10-11: D. Bruce Wiley, M.D., and B. M. Harris, M.D. (The Council instructed the Secretary to communicate with representatives of the various specialty and general practice groups, stating that MSMS will be glad to consider and review any specific alternations they may wish to recommend in the Fee Schedule; further that the 1958 Medicare negotiators be instructed to attempt to achieve the new Michigan Medical Service $5,000 Fee Schedule as a minimum base.) (6) MSMS Representative to Michigan State Board of Alcoholism: J. S. Rozan, M.D., of Lansing. (7) Representatives to meet with Michigan Society of Anesthesiologists: L. Fernald Foster, M.D., Chairman, B. M. Harris, M.D., and D. Bruce Wiley, M.D. (8) G. B. Saltonstall, M.D., was appointed to Big Look Committee. (9) Liaison Committee with Blue Cross re payments for pathology services: D. B. Wiley, M.D., Chairman, Utica; L. Fernald Foster, M.D., Detroit; R. L. Mainwaring, M.D., Dearborn; Ralph W. Shook, M.D., Kalamazoo; and Mr. J. C. Ketchum, Detroit. (10) National Conference on Rural Health, March 6-8: H. B. Zemmer, M.D., Lapeer, Chairman of MSMS Rural Medical Service Committee, was authorized to attend as official MSMS representative.
- Stream-lining work of three or four committees on fee schedules. The Council instructed that the committee on Uniform Fee Schedule for Governmental Agencies confine its activities to wards of the government and to indigents; and that a study committee be appointed by the Chair to study and make recommendations toward the consolidation of the various fee schedule committees now in operation (referred to special Committee on Committees).
- Telegram of congratulations to the University of Alabama and felicitations to Dr. Lawrence Reynolds, M.D., Detroit, on dedication of Lawrence Reynolds library at the University, was ordered.
- Meeting dates of The Council and of its Executive Committee for the year 1959 were approved (previously, the 1958 dates had been selected); also the date and place of the 1961 Annual Session of The Council and of the County Secretaries—Public Relations Seminar were confirmed.
- Non-participating Physicians in Michigan Medical Service: The following action of the 1957 MSMS House of Delegates was reviewed by The Council: "That Michigan Medical Service be urged to give consideration to the development of a means whereby a patient of a non-participating physician will be reimbursed by Michigan Medical Service in an amount not to exceed the fee called for in the contract fee schedule, unless the patient directs otherwise." The proposed change in the Michigan Medical Service contract, to effect the above direction, was thoroughly discussed and approved by The Council.

- Legal Counsel's Report: Lester P. Dodd presented opinions on (1) Sales tax on drugs purchased by physician; (2) Hospital audit of charts; (3) Religious beliefs in connection with blood transfusions (all opinions to be published in JMSMS).
- Public Relations Counsel's report included (1) Review of medical proposals before the Michigan Legislature; (2) Staff contact program, especially in Wayne County; (3) List of speakers before clubs and groups during 1958 MCI.
- Matters of mutual interest were presented by A. E. Heustis, M.D., Michigan Health Commissioner, including (1) Reiter's Syndrome; (2) Idiopathic thrombocytopenic purpura; (3) Hemophilia; (4) Leukemia and other forms of cancer in children; (5) Lung Cancer Research—which study was approved by The Council; (6) Radiation Rules and Regulations; (7) Poliomyelitis incidents—The Council requested an invitation to co-operate in any industrial injury study; (8) Tuberculosis Recommendations of 1958.
- The Suggested Constitution and By-Laws for County Medical Societies, as developed by the County Societies Committee (Wm. M. LeFevre, M.D., Muskegon, Chairman) was thoroughly discussed and approved by The Council.
- The Council approved co-operation with the institute on alcoholism being sponsored by the Michigan State Board of Alcoholism, to be held next autumn.
- Recognition of the Late J. Joseph Herbert's Work: H. H. Hiscock, M.D., Flint, recommended that reference be included in the next printing of the MSMS Constitution and By-Laws concerning the contribution of the late J. Joseph Herbert LL.B. (former MSMS Legal Counsel) in revising these By-Laws, particularly Chapter six and seven re mediation-ethics-grievance. A paragraph recognizing Mr. Herbert's work was authorized for publication on the inside cover of the newly printed Constitution By-Laws.

SECRETARY'S ANNUAL REPORT—1957

TO: The Council of the Michigan State Medical Society:

I herewith submit the annual report of the Secretary for the year 1957.

MEMBERSHIP

The Michigan State Medical Society membership for 1957 showed a total of 6,632 members including 75 Retired, 286 Life and Emeritus, 583 Associate-Military and 6 Honorary members. The total paid membership was 5,688 with net dues of $308,385.00. The 1957 membership was once again at the highest peak in the history of the Society. The number of members with unpaid dues for 1957 was only 28, the lowest in many years.

DEATHS DURING 1957

I must regretfully report a total of ninety eight deaths among members during the past year.

Allegan County—Olin H. Stuck, M.D., Otsego, Michigan.

Alpena County—Arthur L. Foley, M.D., Alpena; John W. Purdy, M.D., Alpena.

Bay County—George W. Moore, M.D., Bay City, Michigan.

Berrien County—Ruel N. Dunnington, M.D., Benton Harbor; Alvin J. Swingle, M.D., Benton Harbor, Michigan.

Branch County—Kendall B. Rees, M.D., Coldwater, Michigan.

Calhoun County—Charles W. Heald, M.D., Battle Creek; Awra A. Hoyt, M.D., Battle Creek, Michigan.

Chippewa County—John J. Blue, M.D., Cedarville; George A. Conrad, M.D., Sault Ste. Marie, Michigan.

Delta County—Harry John Definet, M.D., Escanaba, Michigan.

Genesee County—N. Arthur Gleason, M.D., Flint; Lafon Jones, M.D., Flint; Ray S. Moorish, M.D., Flint, Michigan.

Gogebic County—Augustus J. O'Brien, M.D., Ironwood; Henry A. Tressel, M.D., Wakefield, Michigan.

Grand Traverse County—Buell H. Van Leuven, M.D., Empire, Michigan.

Gratiot County—Frederick W. Palmer, M.D., Mt. Pleasant, Michigan.

Hillsdale County—Omer G. McFarland, M.D., North Adams, Michigan.

Houghton County—William T. King, M.D., Ahmeek; Melvin D. Roberts, M.D., Hancock, Michigan.

Ingham County—Karl B. Brucker, M.D., Lansing; William DeKleine, M.D., Buffalo, New York.

Ionia County—Lewis E. Bracey, M.D., Sheridan; Lee E. Kelsey, M.D., Lakeview.

Jackson County—Clyde A. Leonard, M.D., Jackson; Norman D. Wilson, M.D., Jackson, Michigan.

Kent County—Murray M. DeWar, M.D., Grand Rapids; Eugene L. Kendall, M.D., Grand Rapids; John G. Kingma, M.D., Grand Rapids; Wilfrid P. Patterson, M.D., Grand Rapids; George L. Riley, M.D., Grand Rapids; Ferris N. Smith, M.D., Grand Rapids; and Joseph B. Whinery, M.D., Grand Rapids, Michigan.

Lenawee County—Wesley H. Mast, M.D., Tecumseh, Michigan.

Macomb County—Henry C. Wellard, M.D., New Baltimore, Michigan.

Marquette County—Arvid W. Erickson, M.D., Ishpeming; George M. Waldie, M.D., Ishpeming, Michigan.
Mason County—Leo J. Goulet, M.D., Ludington, Michigan.
Muskegon County—John E. Vander Laan, M.D., Muskegon, Michigan.
Oakland County—J. W. Edwards, M.D., Ferndale; Clarence L. Hathaway, M.D., Royal Oak; John Norup, M.D., Berkley; and William W. Weisberg, M.D., Oak Park, Michigan.
Saginaw County—John N. Kemp, M.D., Saginaw; James Ware MacMeekin, M.D., Saginaw; Charles R. Murray, M.D., Saginaw; Frank A. Poole, M.D., Saginaw; and Michael D. Ryan, M.D., Saginaw, Michigan.
Washtenaw County—Roscoe Wm. Cavell, M.D., Ann Arbor; Frederick G. Novy, M.D., Ann Arbor; Sylvester J. O'Connor, M.D., Ann Arbor; Harvey Spencer, M.D., Ann Arbor; and William C. Wylie, M.D., Dexter, Michigan.
Wayne County—Bruce Anderson, M.D., Pontiac; Jerome W. Ankley, M.D., Detroit; Noah E. Aronstam, M.D., Detroit; Claud W. Behn, M.D., Detroit; Harvey F. Brown, M.D., Detroit; Constantine Cetlinski, M.D., Detroit; Robert P. Coseglia, M.D., Detroit; Douglas Ruthven Coyne, M.D., Detroit; Frederick S. Dickson, M.D., Detroit; Joseph M. Foley, M.D., Detroit; Daniel P. Foster, M.D., Detroit; William L. Foster, M.D., Detroit; Leonard Fox, M.D., Wyandotte; Herbert L. Goodman, M.D., Detroit; William H. Gordon, M.D., Detroit; Eugene V. Gourley, M.D., Detroit; Joshua Hanser, M.D., Detroit; Leland V. Hewitt, M.D., Detroit; John E. Hopkins, M.D., Detroit; John B. Horwitz, M.D., Detroit; Robert B. Kennedy, M.D., Detroit; Heinrich Kobrak, M.D., Detroit; John C. Koch, M.D., Detroit; Harry C. Kurtz, M.D., Grosse Pointe Park; Rudolf Leiser, M.D., Dearborn; Edward A. Malik, M.D., Detroit; Mark E. Maun, M.D., Detroit; Robert Joseph McClellan, M.D., Detroit; Harold G. McLean, M.D., Detroit; David H. O'Donnell, M.D., Detroit; Dayton H. O'Donnell, M.D., Detroit; Charles F. Pequegnot, M.D., Detroit; Ralph A. Poirier, M.D., Detroit; John J. Prendergast, M.D., Detroit; Carl S. Ratigan, M.D., Dearborn; George W. Robinson, M.D., Detroit; John N. Salowich, M.D., Allen Park; Robert L. Schorr, M.D., Detroit; Carlos W. Shotwell, M.D., Detroit; and Joseph J. Watts, M.D., Detroit, Michigan.
Wexford County—Augustus Holm, M.D., Moline, Illinois; Laurence E. Showalter, M.D., Cadillac, and William H. Stokes, M.D., Lake City, Michigan.

1957 ANNUAL SESSION

Once again the Annual Session was held in Grand Rapids and chalked up a fine registration of 3,235. The figure includes Doctors of Medicine, 1,540; Guests, 422; Exhibitors, 585; Woman's Auxiliary members, 284; and Medical Assistants Society members, 404. The General Assembly type of program with discussion conferences was continued as in past years, and the 132 technical exhibits and 11 scientific exhibits received the usual generous attention of the registrants.

ORGANIZATIONAL ACTIVITIES

MICHIGAN CLINICAL INSTITUTE

The Eleventh Michigan Clinical Institute was held in Detroit, March 13-15, 1957. Total registration was 2,243 and the Operating Room Nurses Conference was held in conjunction with the MCI again this past year, as well as a special conference for Residents, Interns and Senior Medical Students. Eight members of the Michigan State Medical Society who were Presidents of National medical associations received special awards at a luncheon held in their honor.

ANNUAL SECRETARIES-PUBLIC RELATIONS CONFERENCE

In 1957, the three day County Secretaries-Public Relations Seminar was again held in January 25-26-27 and attendance records were shattered with a total attendance of nearly 150 representing nearly every component County Medical Society in Michigan.

SECRETARY'S LETTERS

As part of the Society's general educational and informational program for individual members and for component County Societies there were issued during the year 1957 seven Secretary's Letters, three to all members and four to County Society Secretaries and keymen. These informational bulletins were in addition to the monthly issues of THE JOURNAL with its scientific articles and informative news items. In addition, thirteen Legislative Bulletins were issued to keymen during the 1957 Legislative Session to keep the membership informed of activities in the State Legislature pertaining to the practice of medicine.

COMMITTEES

Once again, time and space preclude the listing in detail of the many activities of all the committees contributing to the many splendid programs of the State Society. The accomplishments of the committees of the Society were achieved at the expense of many hours of personal sacrifice on the part of the personnel of the various committees. During 1957, a total of 103 meetings were held by the forty-eight committees of the Michigan State Medical Society. Practically every meeting was attended by your Executive Director or Secretary or some staff member.

A total of 579 members of your State Society gave freely of their time to attend these meetings and assist in the operational activities of the State Society. Too much commendation cannot be accorded the committee members who contributed their time and effort to develop and execute constructive programs—both scientific and economic for the public welfare and to maintain the position of leadership enjoyed by the Michigan State Medical Society in the field of progressive medical planning.

SPECIAL SESSION, HOUSE OF DELEGATES

April 27, 1957

In view of the demands being made upon our Prepayment Medical Care Plan consistent with our changing economy, a Special Session of the House of Delegates was called for April 27, 1957.

At this session a Public Opinion Survey of the attitudes of the public and the physicians was ordered made.

It was made an activity of the Executive Committee of The Council with Mr. Hugh W. Brenneman as Survey Director.

PUBLIC OPINION SURVEY

Opinion Study of Prepaid Medical Care Coverage in Michigan.—This monumental work, authorized by the House of Delegates in special session on April 27, 1957, is the most significant and largest study of its type ever conducted by a state medical society. A detailed report of the findings was presented to the House of Delegates by the Survey Committee (the members being the members of the Executive Committee of The Council) through their spokesmen. Drs. J. J. Lightbody, George W. Slagle, and Mr. H. W. Brenneman. National attention was focused on the results of the study by the medical profession, the public and the insurance companies. Proof of this was in the large number of distinguished guests on hand for the presentation of the results. Many state and national organizations were represented. They included important personages from insurance companies, health insurance advisory groups, other state medical societies and Blue Shield plans. In addition, editors and writers from the great journals of national and state professional societies are planning reports in the study as are science writers with established national audiences of readers.

FINANCES

An audit of the books of the Society was completed by Knostman & Smith as of November 30, 1957. This has been submitted to the Finance Committee for study and is available to any member of the Society for perusal at the Executive Office, 606 Townsend Street, Lansing, Michigan. A brief summary of the audit produces the following information:

Assets:	
Cash	$ 40,498.08
Accounts Receivable	21,180.92
Investments	270,455.28
Property & Equipment	51,642.28
Other Assets	5,521.77
Total Assets	$389,298.33
Liabilities:	
Accounts Payable	$ 21,888.29
Society Equities	
Reserved for Special Purposes:	
Public Education Reserve	$ 74,084.00
Public Education Program	40,765.04
Public Service Account	2,761.86
Professional Relations Account	4,423.70
Rheumatic Fever Control Program	12,679.95
Contingent Fund	53,614.34
Building Maintenance	16,983.53
New Headquarters Fund	28,135.00
General Society Equity	133,962.62
Total Liabilities & Equities	$389,298.33

THE JOURNAL

The following financial information relative to The Journal is found in the annual audit report of Knostman & Smith. Income was $113,116.06 which is $20,341.06 over the tentative budget for 1957. Expenses were $100,704.24 which was $6,129.25 over the 1957 budget. However, this figure indicates a net gain for the year 1957 (eleven months) of $12,411.81.

Included in the total income of $113,116.06 was only $8,419.50 received from the allocation of membership dues.

1957 HOUSE OF DELEGATES

The 92nd Annual Session of the Michigan State Medical Society's House of Delegates was held in Grand Rapids, September 23-24-25, 1957.

The House of Delegates:

1. Adopted with thanks the President's Address, the President-Elect's Address, the report of Delegates to the American Medical Association, the Annual Report of the President of Woman's Auxiliary to Michigan State Medical Society, and the annual Report of the President of Michigan State Medical Assistants Society.

2. The Annual Reports of The Council (including the Annual Reports of Committees of The Council) were adopted as amended. This included approval of By-Laws amendments—to Chapter 6 and new Chapter 7—concerning mediation-ethics-grievance, as amended, with deletion of "representation by counsel." Action on The Council Reports also included approval of two of the four recommendations of the Committee on Study of Healing Arts, as follows:

(a) That the Michigan State Medical Society Delegates to the AMA House of Delegates be instructed to submit a resolution to the AMA House of Delegates at that body's next session, requesting the referral of the problem of M.D.'s and D.O.'s relationship to the individual constituent state medical societies for action by their individual houses of delegates, and that actions, subsequently taken on this question by these houses, be considered ethical in relation to the AMA Principles of Ethics.

(b) That the Michigan State Medical Society agree to having its Legislative Committee meet (annually) when necessary with the like committee of the Michigan Association of Osteopathic Physicians to attempt to iron out any mutual legislative problems.

3. Adopted Annual Reports of all Standing Committees and of all Special Committees of the Society; also the report of the Permanent Advisory Committee on Fees which was directed to continue its studies.

4. Elected Paul Van Riper, M.D., Champion, as Michigan's Foremost Family Physician for 1957.

5. Approved the MSMS-sponsored Opinion Study of Pre-paid Medical Care Coverage, including the Report of the Committee on Michigan Medical Service, G. W. Slagle, M.D., Chairman (see November Journal for detailed report).

6. Approved the amended Report of the Committee to Study Comprehensive Pre-paid Insurance Plans, C. I. Owen, M.D., Chairman.

7. *Took action on proposed amendments to the Constitution and By-Laws, as follows:* (a) By-Laws, Chapter 6 and new Chapter 7 re mediation-ethics-grievance—approved as amended (supra, Item 2); (b) Constitution, Article X, Sections 1-2-3, and By-Laws, Chapter 9. Section 1, making Vice Speaker a voting member of The Council and its Executive Committee—approved; (c) Constitution, Article VII and By-Laws, Chapter 8, Section 1, giving representation in MSMS House of Delegates to Sections—referred to 1958 House of Delegates; (d) By-Laws, Chapter 2, Section 1 re regulation of membership—disapproved; (e) By-Laws, Chapter 6, re discipline of members—disapproved.

8. *Adopted resolutions concerning:* (a) Federated fund raising—approved in principle; (b) Honorary Membership to Wm. J. Burns, LL.B.; (c) Referral of healing arts problem to A.M.A.; (d) Expansion of medical school facilities; (e) Training of ambulance drivers; (f) Collection of MSMS dues; (g) Pilot Study of Insurance Reporting; (h) Woman's Auxiliary's sponsorship of Freedom Essay Contest; (i) Commendation to Luther R. Leader, M.D., Detroit; (j) Annual registration of M.D.'s (as amended); (k) Recognition of Pathology under Medicare; (l) Recognition of Pathology in Blue Cross-Blue Shield.

9. Referred to The Council a resolution re distribution of influenza vaccine.

10. Referred to Michigan Medical Service resolution re Increased Benefits in Michigan Medical Service contracts.

11. *Adopted substitute resolutions concerning:* (a) Establishment of full-time chairs of preventive medicine and public health in Michigan's medical schools; (b) Creation of Study Committee re Practice Privileges in Public Hospitals.

12. *Took no action on resolutions concerning:* (a) Free choice of physician in all medical service plans; (b) Creation of MSMS Advisory Committee to Michigan Medical Service; (c) Comprehensive medical service plan.

13. Tabled resolution concerning study of relative value schedule of services.

14. *Disapproved resolutions concerning:* (a) Proposed increase in dues for building fund (Thorup); (b) Proposed increase in dues for building fund (Babcock); (c) Merger of Blue Shield-Blue Cross; (d) Separation of Blue Cross-Blue Shield; (e) Creation of national or state clearing committee to investigate new drug claims; (f) Representation on Michigan Medical Service Board; (g) Inclusion of M.D.'s under Social Security; (h) Study of need for third medical school in Michigan; (i) Recommendation to Joint Accreditation Committee to establish new section on special services; (j) Adding physiatrists in present MSMS Radiology-Anesthesiology-Pathology Section; (k) Recognition of Internists; (l) To change MHS-MMS into Indemnity Plans; (m) Limit Blue Shield Contracts to those in Specified Income Limits.

15. *Elected the following Officers:*

(a) J. F. Beer, M.D., St. Clair, as Councilor of the 7th District (1962).

(b) E. S. Oldham, M.D., Breckenridge, as Councilor of the 8th District (1962).

(c) D. G. Pike, M.D., Traverse City, as Councilor of the 9th District (1962).

(d) O. J. Johnson, M.D., Bay City, as Councilor of the 10th District (1962).

(e) W. A. Hyland, M.D., Grand Rapids (1959); J. S.

DeTar, M.D., Milan (1959); and C. I. Owen, M. D., Detroit (1959), as Delegates to the American Medical Association.
(f) W. W. Babcock, M.D., Detroit (1959); E. F. Sladek, M.D., Traverse City (1959); and O. J. Johnson, M.D., Bay City (1959), as Alternate Delegates to the American Medical Association.
(g) G. B. Saltonstall, M.D., Traverse City, as President-Elect.
(h) K. H. Johnson, M.D., Lansing, as Speaker, House of Delegates.
(i) J. J. Lightbody, M.D., Detroit, as Vice Speaker, House of Delegates.

16. *Elected to Special Memberships:*

(a) *Forty-eight members to Life Membership:* (Allegan County) H. H. Johnson, M.D.; (Berrien County) Edward A. Miller, M.D.; (Gogebic County) Charles E. Stevens, M.D.; (Ingham County) J. Earl McIntyre, M.D.; (Ionia-Montcalm Counties) Earl P. Bunce, M.D.; Oscar P. Geib, M.D., Alfred E. Hollard, M.D., Perry C. Robertson, M.D.; (Kent County) Earle J. Byers, M.D., Ernest W. Dales, M.D., Alfred Dean, M.D., John Ver Meulen, M.D., William R. Vis, M.D.; (Lenawee County) W. B. Hornsby, M.D., Philip P. Sayre, M.D., Chad A. Van Dusen, M.D.; (Saginaw County) Alexander R. McKinney, M.D. and John T. Sample, M.D.; (Washtenaw County) Frederick A. Coller, M.D., Emory W. Sink, M.D.; (St. Clair County) George Van Rhee, M.D.; (Wayne County) Effie E. Arnold, M.D., T. H. Edward Best, M.D., F. W. Bramigk, M.D., Philip H. Broudo, M.D., Duncan Campbell, M.D., William J. Cassidy, M.D., Aaron L. Chapman, M.D., Don A. Cohoe, M.D., Ray S. Dixon, M.D., Clair L. Douglas, M.D., Edward F. Dowdle, M.D., Clarence H. Eisman, M.D., Ray L. Fellers, M.D., William Gramley, M.D., Charles W. Husband, M.D., Zeno L. Kaminski, M.D., Charles S. Kennedy, M.D., Hugh A. McFadyen, M.D., Edward J. O'Brien, M.D., Jacob R. Rupp, M.D., Rene J. St. Louis, M.D., Stelios N. Sakorraphos, M.D., Simon H. Sauter, M.D., Jesse G. Slaugenhaupt, M.D., Elisha J. Tamblyn, M.D., Delma F. Thomas, M.D., and Harriet E. McLane, M.D.
(b) *Eleven members to Retired Membership:* (Oakland County) Burton M. Mitchell, M.D.; (Wayne County) Roland M. Athay, M.D., Carl C. Birkelo, M.D., Harry G. Clark, M.D., Floyd B. Knapp, M.D., Arlington Lecklider, M.D., Walter H. Squires, M.D., Hugh Stalker, M.D., Henry B. Steinbach, M.D., Cleary N. Swanson, M.D., William A. Thompson, M.D.
(c) *Fifty-eight members to Associate Membership:* (Alpena County) Jerry Miller, M.D.; (Chippewa-Mackinac Counties) LeRoy A. Futterer, M.D.; (Hillsdale County) William O. Michel, M.D.; (Gratiot County) LeRoy F. Von Lackum, M.D.; (Oakland County) Juliette Seelye Karow, M.D.; (Washtenaw County) John N. Bicknell, M.D., George E. Block, M.D., Fred G. Blum, Jr., M.D., Philip D. Brooks, M.D., Donald C. Bullington, M.D., Charles W. Butler, Jr., M.D., C. William Castor, Jr., M.D, William A. Challener, III, M.D., George W. Cheek, Jr., M.D., Alton J. Coppridge, M.D., William M. Cutler, M.D., James H. Geist, M.D., Robert I. Goldsmith, M.D., Carol E. Goodman, M.D., Frank H. Goodrich, M.D., Donald J. Holmes, M.D., Albert S. Jacknow, M.D., Robert S. Jampel, M.D., Edmund M. Krigbaum, M.D., Graydon A. Long, M.D., John C. Nixon, M.D., Gerald A. O'Connor, M.D., Alden R. Parker, M.D., Prasanna K. Pati, M.D., Gus A. Raney, M.D., Melvin J. Reinhart, M.D., F. Dale Roth, M.D., Arthur S. Shufro, M.D., Carlson R. Speck, M.D., Donald Y. Stewart, M.D., Thomas P. Stratford, M.D., Emanuel Tanay, M.D., Ralph W. Theobald, M.D., Robert L. Timmons, M.D., John B. Tisserand, Jr., M.D., John S. Tytus, M.D., John D. Werley, M.D., Donald K. Williams, M.D., James H. Winkler, M.D., James A. Wood, M.D., William S. Wilson, M.D.; (Wayne County) Donald R. Brock, M.D., Paul Dzul, M.D., David French, M.D., Eugene P. Frenkel, M.D., Alex Gaynor, M.D., Frank L. Hoagland, M.D., L. W. Hull, M.D., William V. Kyle, M.D., Charles West, M.D., John D. McKinnon, M.D., Donald R. Nielson, M.D., and Melvin K. Pastorius, M.D.

OTHER ORGANIZATIONAL ACTIVITIES

WOMAN'S AUXILIARY AND MEDICAL ASSISTANTS

The Woman's Auxiliary and the Medical Assistants have maintained active programs throughout the year.

CONTACT WITH GOVERNMENTAL AGENCIES AND CONTACTS WITH VOLUNTARY AGENCIES AND ORGANIZATIONS

The usual contacts have been made from time to time during the year.

MICHIGAN MEDICAL SERVICE

Financial.—Final figures for the year 1957 are not available as of this date.

The Tentative Balance Sheet as of November 30 indicates:

	1957	*1956*
Assets	$13,840.030.79	$15,931,562.81
Liabilities	10,632,501.50	9,742,510.16
Reserve for Contingencies of	$ 3,207,529.29	$ 6,189,052.65

The Assets as of December 31, 1956 were $15,378,-309.08 or a decrease for the eleven months of $1,538,-278.29.

The Reserve for Contingencies as of December 31, 1956 was $5,812,312.60 or a reduction of the Reserve for the eleven months of $2,604,783.31.

This decrease in Reserve for Contingencies was allocated as follows:

	11 Months 1957	*11 Months 1956*
Loss from Operations	$2,919,402.54	$2,197,610.13
Miscellaneous Income (Gain)	(18,690.90)	(2,539.85)
Investment Income (Gain)	(295,928.33)	(326,381.06)
Total Loss	$2,604,783.31	$1,868,689.22

It is estimated that the subscription fee income for the year 1957 and payments for services rendered subscribers will be as follows:

Estimate of subscription fee income for 1957	$45,759,000.00
VA fees and expense reimbursement	1,082,000.00
Medicare fees and expense reimbursement	536,000.00
	$47,377,000.00
Estimate of payments for services rendered subscribers for the year	$43,836,000.00
For veterans	956,000.00
Medicare	525,000.00
Etimated total payments	$45,317,000.00

This is an average per month of $3,776,400.00 as compared with $3,493,000.00 in 1956.

The dollar of subscription income is divided approximately in cents as follows:

	1957	*1956*	*1955*	*1954*	*1953*
Services to Subscribers	98.54c	97.78c	91.34c	90.66c	89.82c
Administration Expense	8.48	7.80	8.68	8.83	8.66
Reserve for Contingencies (Loss)	(7.02)	(5.58)	(.02)	.51	1.52

The decrease in reserve for contingencies of $2,604,-783.31 for the eleven months of 1957 resulted from increase in services under all contracts except the Surgical $5,000.00 Family Income Certificate. Subscription rates were increased overall by 12% effective October 1, 1958. The effect of this increase for two months is reflected in the corporation's net loss above. The loss would have been greater had there been no increase.

Payments for Services.—There is an increase in incidence of service for the first six months of 1957. Services per 1,000 subscribers are as follows:

	1957	*1956*	*1955*	*1954*	*1953*
First six months	28.46	26.70	23.93	22.94	23.31
Average cost per service is as follows:					
First six months	$35.69	$35.36	$32.74	$33.25	$32.74

The increase in incidence of service in the first six months of 1957 over the same period for 1956 as compared to the increase in 1956 over 1955 is due to large increase in enrollment under the medical-surgical type of certificates and greater utilization of all services.

During the year 1957, payments were made for 1,208,436 services under our basic contracts. In addition there were 99,533 payments under our X-Ray-EKG Rider.

Enrollment.—November 30, 1957 statistics indicate there were 3,636,912 persons protected by Blue Shield in Michigan and of that number 1,899,634 (52.2 per cent) had the X-Ray-EKG Rider.

789,264 (21.7 per cent) persons have surgical protection only
2,847,648 (78.3 per cent) persons have both medical and surgical coverage
1,505,115 (41.4 per cent) persons have the $2,500 family income contract
2,131,797 (58.6 per cent) have the $5,000 family income contract

Professional Relations Activities for 1957.—

I. *Contacts by the Professional Relations Staff for 1957:*

Doctor Contacts:		
In Office	8,995	
Hospital Cloakroom	4,126	
Other	4,266	17,387
Miscellaneous Contacts:		
Hospital and Clinic	1,313	
At Meetings	1,050	
Secretaries	2,511	
District Offices, Subscribers, etc.	2,041	6,915
Meetings:		
Hospital Cloakroom	259	
County Society	134	
Medical Assistants	26	
Hospital Staff	66	
Others	136	621

II. *Report of M.D. Participation Activity for 1957:*

		1956
New doctors entered practice	392	
New doctors signed participation agreement	227	
New doctors who did not sign participation agreement	165	
Doctors already practicing who signed participating agreements	280	
TOTAL PARTICIPATING AGREEMENTS OBTAINED	507	346
M.D.'s left State	63	33
M.D.'s retired	31	
M.D.'s deceased	83	85
M.D.'s moved; whereabouts unknown	32	37
M.D.'s in Military Service	7	39
M.D.'s resigned participation	37	30
TOTAL LOSS OF PARTICIPATING DOCTORS, ALL SOURCES	253	224
NET GAIN OF PARTICIPATING DOCTORS	254	122

NOTE: The above activities are exclusive of Medical Meetings attended by L. Fernald Foster, M.D., Jay C. Ketchum, C. D. Moll, M.D., L. G. Goodrich and staff personnel other than the Professional Relations people.

III. *Total Physician Participation in Michigan Medical Service:*

As of December 25, 1957, total participants were 5,106 out of approximately 6,034 Doctors of Medicine for an 84.6 per cent enrollment.

Two participation campaigns contributed substantially to the above total.

1. The letter from Luther R. Leader, M.D., President of the Wayne County Medical Society, to all Wayne County members brought in 130 new participants.
2. A later letter to all Michigan State Medical Society members from Arch Walls, M.D., President, brought in an additional 85 new participants.

IV. *Other Professional Relations Activity:*

1. In 1957, the Wayne County Medical Advisory Board to Michigan Medical Service held twenty-two meetings and adjudicated fees for approximately 2,200 cases of unusual and complex nature.
2. The Kent County Medical Advisory Board to Michigan Medical Service held ten meetings in 1957 and adjudicated fees for approximately 350 cases of unusual and complex nature.
3. Michigan Medical Service representatives attended and participated in seventeen hospital staff meetings in the Detroit area which were arranged by the Michigan State Medical Society and the Wayne County Medical Society as joint presentations of programs relative to the current activities of both organizations.
4. Michigan Medical Service Professional Relations representatives have made appreciable progress in their relationships with County Medical Societies. Out of the fifty-five County Medical Societies in the State, our representatives attend the regular meetings of thirty-one of them as associate members or because of standing invitations from the Societies to the representatives..
5. The Professional Relations activities in the past year are inclusive of numerous contacts with the liaison committees of the Michigan Osteopathic Association, the Michigan Chiropody Association and the Society of Oral Surgeons.
6. The Professional Relations staff has been called on for considerable assistance and education of the Medical Profession with regard to the newly organized Medicare Program. As this is a new activity of Michigan Medical Service, a great deal of time has been devoted to it to help make it run smoothly. It is estimated that about 25 per cent of the time of our representatives is taken up with this program.
7. There have been approximately 150 overcharge cases of under income subscribers presented to Michigan Medical Service in the last twelve months which required handling by our Professional Relations staff. It is a pleasure to report that all of these cases which came to our attention as disputes between patients and their doctors with respect to fees, for the most part, were settled amicably and successfully to the interest of both parties.

Medicare Program through December 31, 1957.—The Medicare Program has now been in operation thirteen months. When the contract was executed between the Defense Department and Michigan Medical Service as Fiscal Agent for the Michigan State Medical Society, estimates led us to believe we might expect to receive fifteen or twenty claims a week. Actually, since July 1, 1957, we are averaging *925* new claims per month.

Payments to the physicians amounted to *$525,143.48* in benefits for services covered under Public Law 569. We average *801* claims paid and *forty* claims denied per month. (Since July 1, 1957). The average pay-

ment for each claim is *$74.34* which is slightly higher than the national average for other plans throughout the country.

First six months of 1957 payments were for the following type of service:

Obstetrics	46%
T & A	9%
Complications of Pregnancy	6%
Balance	39%

Not only has the Program grown in size claimwise but the interest shown by the physicians has shown a marked increase. A year ago 3,106 Doctors of Medicine and 495 Osteopathic Physicians had signed participating agreements with Medicare. As of December 23, 1957, these figures have grown to *3,992* M.D.'s and *658* D.O.'s. It is important to note the difference between a participating doctor in Michigan Medical Service and Medicare. Under Medicare, a physician who does not participate in the program will not be paid, nor will the government assume any liability as an indemnity to aid the patient. This is a full-service program with no half way measures as far as participation is concerned.

The $5,000 income limit schedule was negotiated by the Medical Society as a reasonable fee schedule since according to the Department of Defense these service people annually average about $4,500 overall. Another striking difference between Medicare and Michigan Medical Service should be pointed out with respect to this fee schedule. A surgical fee as listed in the Medicare schedule contemplates complete payment for *all* necessary and normal pre and post operative care both in the hospital and in the doctor's office. Under Michigan Medical Service's regular program, the surgical fee contemplates no payment for the office care. This situation has caused some unfortunate misunderstandings within the profession.

We believe this problem will be eliminated in our renegotiations with the Defense Department which are scheduled for March 10, 1958. Already the Fee Schedule Committee for Governmental Agencies has been acquainted with a new method of breakdown of these basic fees to denote what portion of the fee is intended for pre operative care, post operative care, and the surgery itself. Likewise the government has attempted to better define the extent of pre operative and post operative services.

In May and again in October, Michigan Medical Service mailed to all doctors literature explaining or clarifying difficult parts of the program. The October mailing included a complete new up to date Medicare Manual with complete fee schedule. Our Professional Relations Department representatives are continually carrying "the word" to the Profession through direct contacts in the field.

The problem of properly identifying a serviceman's dependent has been made much easier. Practically all dependents over age 10 have now been issued a "Uniformed Services Identification and Privilege Card—DD Form 1173" which they must present to their physician at time of service. All claims submitted to Michigan Medical Service on and after January 1, 1958, must bear the Medical Authorization Card number and its expiration date.

As far as the claim form is concerned, there was hope that a revision would be available by the first of this year. Although experience shows that most doctors' offices are becoming more proficient in its use, improperly completed forms still is the chief reason for delay in payments. The Defense Department reports that an improved claim form should be available about next June.

Veterans Hometown Care Program.—The contract with the Veterans Administration effective July 1, 1957, provided for quite a few changes in administrative, authorization and payment procedures. Whereas prior to July 1, a new authorization had to be requested each month in each instance, the Veterans Administration employed the following procedural changes in authorizing.

Veterans, from the standpoint of outpatient treatment, were categorized into one of two groups, either "long term or short term."

Long Term—Veterans whose service connected disabilities were of a chronic nature and required almost continuous care were placed in this category. It provides for the issuing of one (1) authorization for a maximum of one full fiscal year, or as many months remaining in any fiscal year. This eliminates the necessity of having to request a renewal authorization for each month's treatment. Along with the authorization the treating physician would receive one invoice for each month of authorization, and four quarterly Report of Medical Treatment forms. The invoices are to be submitted to Michigan Medical Service one at a time for each month's treatment and for subsequent payment. The quarterly report forms must be submitted directly to the Veterans Administration and preferably prior to the receipt of the invoice for the third month of each quarter. At the present time the majority of Veterans Administration beneficiaries are within this category.

Short Term—Authorization issued within this classification are for periods of one to two months and are for veterans whose service connected disabilities do not require continuous care. Along with the authorization, which is sent directly to the veteran the first time, and then to the requesting physician thereafter, the Veterans Administration sends a progress report form, one invoice for each month, up to two, and one "request to continue treatment" form. At the end of the month the invoice should be submitted to Michigan Medical Service for payment, progress report direct to the Veterans Administration and request to continue treatment also to the Veterans Administration, if treatment for the following month is necessary.

Along with the authorizing procedure, the method of making payment to fee-basis physicians has been changed. Prior to July 1, 1957, payment was made by Michigan Medical Service upon approval of the doctors report, and as quickly as the report-invoice could be worked in the IBM cut-off procedure. Under the current procedure it is necessary to bill the Veterans Administration first and wait for payment from them before Michigan Medical Service can make payment to the doctor. This results in an additional delay of from 10-20 days. Even after receiving payment from the Veterans Administration we must wait until our next payment cycle before paying the doctor.

Except for the months of July and August, 1957, there have been comparatively few new long term authorizations, as a matter of fact only about 150 per month. "Short Term" authorizations have not exceeded an average of 1,500 per month. Currently the Veterans Administration is engaged in a re-classification program, and are changing many cases from "Long Term" to "Short Term." At the beginning of the contract year many veterans, for the sake of expediency, were classified "long term" but are now being changed back to "short term." Compared to an average of 5,500 to 6,000 authorizations per month prior to July 1, 1957, there is no definite reduction in overall authorizations. For example, there were 3,012 long terms in July and 1,614 in August, plus all the short term with averages around 1,500 per month.

Administrative costs have naturally decreased, however, not as much as the Veterans Administration had expected. Under the previous procedure administrative costs were approximately $6,700.00 per month whereas the lowest since July, 1957, was November. 1957, which was $3,707.95.

BLUE SHIELD FACT SHEET

September 30, 1957

I. Total Blue Shield Membership.....40,686,426

II. Blue Shield Members in United States, Puerto Rico and Hawaii.....38,843,522
Per cent of total population in United States, Puerto Rico and Hawaii..... 23.12

III. Blue Shield Members in Canada..... 1,842,904
Per cent of total population in Canada enrolled in Blue Shield..... 11.54

IV. States in which more than 40 per cent of the population are Blue Shield members:

State	*Per Cent*
Delaware	62.90
District of Columbia	56.78
Michigan	48.63
Connecticut	46.61
Massachusetts	42.60

States in which 20 per cent to 40 per cent of the population are Blue Shield members:

State	*Per Cent*	*State*	*Per Cent*
New York	39.76	Ohio	24.73
New Hampshire-Vermont	39.53	Kansas	24.50
Pennsylvania	35.91	Iowa	22.67
Colorado	32.38	Maine	22.57
Indiana	31.37	North Dakota	22.39
New Jersey	31.11	Wisconsin	22.14
Hawaii	30.11	Alabama	20.81
Minnesota	26.56	Missouri	20.45

Per cent of population enrolled in Blue Shield in areas served by Canadian Plans:

Province	*Per Cent*	*Province*	*Per Cent*
Manitoba	32.79	Maritime Prov.	14.35
British Columbia	28.85	Ontario	14.01
Saskatchewan	24.71		

V. Growth of Blue Shield Medical Care Plans:

December 31	*Total Members*
1946	1,826,719
1947	5,791,175
1948	8,911,225
1949	12,260,045
1950	16,629,596
1951	21,130,996
1952	24,670,701
1953	28,141,727
1954	31,489,023
1955	35,725,533
1956	38,802,846
September 30	
1957	40,686,426

Blue Shield Medical Care Plans are now in operation in forty-three of the forty-eight states, in the District of Columbia, in eight Canadian Provinces, and in the Territories of Puerto Rico and Hawaii. The Direct writings of Medical Indemnity of America, Inc., are also included.

VI. Percentage Distribution of Total Income Dollar:

Reporting Plans	*Medical and/or Surgical Expense*	*Operating Expense*	*Reserve Funds*
1947—45 Plans	78.24	15.60	6.16
1948—57 Plans	77.19	14.26	8.55
1949—61 Plans	78.99	13.88	7.13
1950—68 Plans	78.51	13.05	8.44
1951—75 Plans	79.63	12.39	7.98
1952—75 Plans	79.29	11.89	8.82
1953—76 Plans	80.30	11.24	8.46
1954—76 Plans	81.15	11.10	7.75
1955—75 Plans	82.75	10.63	6.62
1956—72 Plans	86.06	10.47	3.47
First Nine Months 1957—73 Plans	87.93	10.24	1.83

Year	*Payments to Doctors*	*% of Total Earned Sub. Income*	*Operating Expense*	*% of Total Earned Sub. Income*
1955 United States, Puerto Rico and Hawaii	$331,067,785	82.81	$43,610,345	10.91
Canada	25,880,141	96.67	2,228,880	8.32
Total	356,947,926	83.68	45,839,225	10.75
1956 United States, Puerto Rico and Hawaii	$407,350,023	86.56	$50,702,153	10.77
Canada	31,237,425	93.41	2,647,650	7.92
Total	438,587,448	87.02	53,349,803	10.58
First Nine Months 1957 United States, Puerto Rico and Hawaii	$354,779,356	88.53	$42,232,077	10.54
Canada	27,863,618	93.14	2,330,720	7.79
Total	382,642,974	88.85	44,562,797	10.35

VIII. Miscellaneous Facts:
1. 12,068 persons joined Blue Shield each working day during 1956.
2. 3,077,313 persons became Blue Shield members during 1956.

Includes direct writing of HSI-MIA.

BEAUMONT MEMORIAL FOUNDATION

Following the approval of last year's House of Delegates, The Council requested the Beaumont Memorial Committee and Legal Counsel, Lester P. Dodd, to proceed with the incorporation of the Beaumont Memorial Foundation, a nonprofit corporation in the State of Michigan. This has been substantially accomplished and every MSMS member has been formally invited to participate in the Foundation created to further the purposes and continuing needs of the Beaumont Memorial. Thus every Michigan physician will know that he is not only eligible to join the Beaumont Memorial Foundation at an annual membership fee, but that it is his privilege to continue the up-keep of this historical gem which belongs to all members of the medical profession and should be the financial responsibility of all.

Alfred H. Whittaker, M.D., of Detroit, was recently appointed as a member of the Mackinac Island State Park Commission by Governor Williams—the first M.D. to be placed on this important Commission.

PUBLIC RELATIONS

During the last twelve months, Michigan medicine executed its most positive public relations campaign of the year when it conducted the Opinion Study of Prepaid Medical Care Coverage in Michigan.

Michigan State Medical Society Study.—In April, at a special meeting of the Michigan State Medical Society House of Delegates, instruction was given to institute a comprehensive survey of public opinion regarding medical service plans. With the responsibility vested in the Executive Committee of The Council and the administration under the direction of Public Relations Counsel Hugh W. Brenneman, the monumental task was geared to a break-neck schedule. Within four months, the three-party study was completed, tabulated, evaluated and prepared for presentation to the September meeting of the House of Delegates in Grand Rapids.

The Study, unanimously approved by the Delegates, served as a constant guide and reference to the House of Delegates Reference Committee on Medical Service and Prepayment Plans chaired by Max L. Lichter, M.D. Based on the Study results, the recommendations of the House of Delegates Committee to Study Comprehensive Prepaid Insurance Plans, and The Council Committee on Michigan Medical Service, recommendations for expanding the scope of prepayment coverage were adopted.

The attention of the entire nation was focused on Grand Rapids and the actions of the Michigan State Medical Society. Insurance companies, foundations, state medical societies and health organizations sent personal representatives to receive the information at first hand. Press interest was overwhelming during and after the House of Delegates session.

The public relations impact of the MSMS action was the end result of a four-month publicity schedule planned in advance, building gradually to a climax when study results were released in September.

The publicity theme was that the doctors and the public were partners in all health insurance plans, and for the first time anywhere, the public was being con-

sulted by Michigan doctors concerning its desires in medical-surgical coverage.

No medium was overlooked. Radio, television, press, magazines, trade journals, letters to organizations, exhibits, bulletin board announcements, and telegrams to hospital chiefs of staff, all urged participation in the survey. The result was that by the time the Study was reported in September, everybody in Michigan knew that the doctors, in partnership with the people, were doing something about medical coverage and costs.

The best defense is a good offense, and the Michigan State Medical Society took full advantage of its opportunity to gain public confidence in the doctors of medicine and prepayment principles.

Motion Pictures.—Michigan State Medical Society activities in motion picture production for 1957 resulted in the completion of one film and in the beginning of another.

A 15-minute colored film entitled, "Something Called Epilepsy," was finished in mid-year and had its statewide premier a few weeks ago in co-operation with the Michigan Epilepsy Center. This picture marks the first attempt of MSMS to enter the disease field with its educational efforts. Previous films have covered such subjects as the quality of M.D. training, medical associate recruitment., medical progress in immunization, etc.

With The Council's advice, shooting on the documentary film of the Wayne County Medical Society's new building has begun. Completion of the film is planned just prior to the dedication of the new headquarters so that the transition from the David Whitney House may be exhibited at the dedication ceremonies next September and preserved as an official record by Wayne County Medical Society.

Hospital Visitation Program.—To increase communication between medical societies and members, the MSMS co-operated with the Wayne County Medical Society in a series of more than 20 meetings with staffs of hospitals in Wayne County. The meetings were attended by officers of Wayne County Medical Society and Michigan State Medical Society officials, and provided an opportunity for a mutual exchange of ideas and information. This program is intended as an annual one and is specifically designed for a large county society not able to have all its members meet at any one time.

Library.—The new service to MSMS members and county societies is the MSMS Library, now fully catalogued under the direction of a professional librarian on loan from the Michigan State Library.

Requests are coming in now for loan of the resource material—films, tapes, scripts, clippings and background material on all socio-medical subjects. Every effort will be made to urge all MSMS members to make maximum use of this new educational and public relations asset.

Educational Campaigns.—"Operation Armor," the MSMS educational campaign to encourage immunization was concluded this past spring. This successful effort was the doctors' admonition to the public that immunization procedures were vital to disease prevention. The campaign was prompted by public apathy to polio and diphtheria vaccine.

National Medical Education Week and Diabetes Week also were promoted by MSMS which served as statewide coordinator and handled publicity in support of county medical society activities in these fields.

Radio-Television.—In radio, MSMS continued its activities in distributing to Michigan outlets, in co-operation with county medical societies, the 15-minute health series transcribed by the American Medical Association. It also continued to distribute its own "Tell Me, Doctor" five-minute series within Michigan. The latter shows have been screened for content and brought up-to-date in line with modern medical developments.

Special television programs were presented during 1957, in addition to regular shows over WKAR-TV, Lansing. The audience for the live TV broadcast of the heart operation performed during the Michigan Clinical Institute was the largest accorded any comparable program during 1957. MSMS co-operated with the Michigan Heart Association and Smith, Kline and French Laboratories to make a kinesscope of that hour-long show and distributed it to out-state TV stations after its initial telecast over WWJ-TV.

General Activities.—The pace of public relations activity increased markedly during 1957, principally because the conduct of the Opinion Study and the new Library were added to regular established duties.

For example, the Public Relations staff traveled in the aggregate some 58,000 miles and attended more than 600 meetings such as county medical society and committee meetings, conferences and business contacts, during the 12-month period.

Last year, the legislature was in session a total of 96 days necessitating the attendance of one or more men at each day and evening session. Combined with routine duties of publicity, program preparation for MSMS meetings, bulletins and so on, it is obvious that the medical profession's public relations function is a consuming task.

For 1958, an equal performance will be expected. Although the legislative session will not be as lengthy as in 1957, other programs will absorb this time slack.

Specifically, I refer to the MSMS participation campaign directed to doctors of medicine who are members of our Society. We hope, perhaps optimistically, that we will be able to obtain 99 and 44/100 per cent participation of our members in support of the prepayment principles developed and approved by the House of Delegates in September.

This has been a crucial year, but we have met its challenge. For 1958, we must do no less.

LEGISLATION

There may have been a time in the dim past when medicine and politics did not mix. Social and economic developments in more recent years, however, have forced the mantle of politics upon our collective shoulders. Even as we must do our utmost to "treat human ailments and disease," so must we also extend our every effort to aid legislative leaders in formulating the legal safeguards which insure for the people of the state the best health care possible.

A complete report on the 1957 Michigan Legislature and national Congress is to be found in last year's midsummer report of The Council and is not repeated here. To quote a part of that report though, it is a tribute to the counsel of the members of the profession and the wisdom of the lawmakers that no legislation inimical to the public interest was passed during the session; some progress toward better health care was gained by the adoption of a half-dozen new laws.

Even more important, however, is the task ahead. Legislative proposals pertaining to the relationship between hospitals and the profession, the reorganization of the health agencies of the state, changes in the medical practice act, the control of atomic materials, the expansion of the medical school facilities of the state and changes in the federal social security law, to mention but a few, will be under consideration soon.

Since nearly a hundred bills in each session affect the health care of the people of the state, any future progress will depend entirely on the amount of responsibility the doctors of medicine assume in the political and socio-economic sphere.

RECOMMENDATIONS

After a careful consideration of the continued successful operation of the MSMS and its many projects, I respectfully submit the following recommendations:

1. That a survey be made by an outside agency of

the MSMS bookkeeping system, with a view to improving the records and making them more simplified.

2. That consistent with the suggestion of the House of Delegates—The Council develop educational programs covering all phases of Prepared Medical Care Insurance.

3. That in view of the growing need of an affiliation of the various professions, the Public Relations Counsel be empowered to proceed with the development of a Michigan Association of the Professions.

4. That if the 1958 Annual Session's new format (Tuesday noon to Friday noon) proves popular with the membership and results in increased M.D. attendance, I recommend that the 1959 Michigan Clinical Institute have the same Tuesday noon to Friday noon format.

5. That if the Editorial Workshop of February 1, 1958, is successful in attendance and county bulletin editor interest, I recommend that it be held every two years (in the same year as the State Medical Journal Advertising Bureau holds its Editorial Conference, to benefit from some of the program presentations and information at this National Conference).

Your Secretary is grateful for the helpful co-operation given him by this Council during the past year.

Too much recommendation cannot be accorded the Executive Office staff for their untiring efforts and loyalty to the Michigan State Medical Society.

Your Secretary is especially appreciative of the constructive advice and services accorded him by William J. Burns, Executive Director, Mr. Dodd, Legal Counsel, Hugh Brenneman, Public Relations Counsel and his staff, Wilfrid Haughey, M.D., Editor, and Robert Roney, Assistant Executive Director. Our field secretaries did an unusual job in their legislative activities.

To everyone who has aided so generously and willingly in the discharge of his duties, your Secretary is most grateful.

Respectfully submitted,

L. Fernald Foster, M.D.
Secretary

TREASURER'S ANNUAL REPORT—1957

Mr. Chairman and members of The Council of the Michigan State Medical Society and the Finance Committee:

I hereby submit a report of the securities and cash belonging to the Michigan State Medical Society in my possession as duly elected Treasurer for the year January 1, 1957 to November 30, 1957:

Balance on hand as of January 1, 1957		$ 8,713.01
Deposits: February 1		375.00
March 1		62.50
March 19		203.55
April 11		235.00
May 15		437.50
		62.50
May 22		312.50
June 12		621.00
June 22		281.25
July 3		55.20
July 24		71.40
Aug. 30		375.00
Sept. 19		125.00
Sept. 30		772.50
Oct. 10		1,657.29
Nov. 13		325.00
Nov. 16		437.50
Total of Deposits		$ 6,409.69
Balance on hand as of November 30, 1957		$15,122.70

Note: *For the benefit of the Finance Committee, the Treasurer's account does not have that total on hand, as during December $10,000.00 was sent to the General fund in Lansing. In January 1958 $6,000.00 was sent to the General fund in Lansing, some of which was deposited in December 1957. Therefore the balance to date is $392.65. This is not a part of the report, but it is offered as general information.*

Mr. Slattery has checked the lock box and has notified Knostman and Smith as to the following securities, which are present at this time:

Michigan National Bank safekeeping receipt No. 4378 covering $25,000 US Treasury 2½% Bonds due Nov. 15, 1961. Securities held in The First National Bank of Chicago, Nos. 37849, 142208/9.

Michigan National Bank safekeeping receipt No. 4536 covering $35,000 US Treasury 2½% Bonds due Nov. 15, 1961. Nos. 89532, 122422, 123809, and 34239.

Michigan National Bank, Lansing, Mich., safekeeping receipt No. A 718 for $45,000 US Saving Bonds, Series K
$40,000 dated June 1, 1954
$ 5,000 dated June 1, 1954
Nos. Y54-843K/46K, V49, 459K.

Michigan National Bank, Lansing safekeeping receipt No. A 726 and No. A 86793. The First National Bank Chicago, US Treas. 2½% Bonds due Mar. 15, 1970/65 No. 30720, $10,000.

Michigan National Bank, Lansing safekeeping receipt No. A 864 and No. A 105141. The First National Bank of Chicago $25,000 US Treas. 2¼% Bonds due June 15, 1962/59 Nos. 79552, 161186, 179363.

$15,000 Savings Deposit Receipts date Oct. 24, 1957. Nos. 1160/2 reg. n/o Michigan State Medical Society.

$40,000 Time Cert. of Deposit dated Mar. 13, 1957, No. 644 reg. n/o Michigan State Medical Society.

$25,000 Time Cert. of Deposit dated Oct. 7, 1957, No. 1737 reg. n/o Michigan State Medical Society.

$4,000 US Savings Bonds Series K, dated July 1, 1954, reg. n/o Michigan State Medical Society Nos. M262-323K/6K.

$5,000 US Savings Bonds Series G, dated May 1, 1946. reg. n/o Michigan State Medical Society, Nos. M4-733-323G/7G.

$30,000 US Savings Bonds Series G, dated Aug. 1, 1946. reg. n/o Michigan State Medical Society, Nos. V543-383G/8G.

$5,000 US Savings Bond, Series G, dated Mar. 1, 1948. No. V799-030G, reg. h/o Michigan State Medical Society.

$8,000 US 2¾% Treas. Bonds, Investment Series B 1975-80, reg. n/o Michigan State Medical Society, Nos. 17469K, 70L, 71A, 72B, 73C, 74D, 75E, and 76E.

Respectfully submitted,

William A. Hyland, M.D.
Treasurer

EDITOR'S ANNUAL REPORT—1957

In previous annual reports, we have sketched the history of The Journal of the Michigan State Medical Society from its inception in October, 1902, to be the mouthpiece of the newly reorganized Michigan State Medical Society which had become a democratic organization with representative controls, delegates representing the component county societies and a governing body, The Council. This was a new concept in medical organization, Michigan being one of the very first to accomplish this purpose and it seemed fitting that the society should have a method of communicating to its members the important and interesting facts of medical economy, policy—as well as science.

Dr. Andrew P. Biddle, first editor, working with Dr. Leartus Conner, then Chairman of The Council, succeeded in making a very impressive and successful venture. The December, 1957, number completes Volume 56 and completes 664 issues of The Journal. The original objective of The Journal has been carried out down through the years by a succession of editors, all of them making the publication strictly a medical journal, giving scientific facts and papers, new discoveries, new thought, new discussion, making an effort to bring to the readers the very latest available knowledge in the whole field of medicine and surgery. There were numerous medical journals publishing scientific

material. The Michigan State Medical Society believed during all the years—and still does—that the other interests of the profession should be brought to us in an authoritative manner. Through the years. THE JOURNAL has published in addition to scientific papers, news items, facts, actions and accomplishments of interest to our profession. It has discussed the economic stress of carrying on through reconstructive years, through the growth years and had brought to our attention, the various threats to our independence and to our individuality.

Serious problems have faced the profession through all the years. These problems have been met by the representatives, the elected spokesmen and by the membership itself in every instance. THE JOURNAL has played a large part in presenting this material to the readers. In the early days of our existence as a State Medical Society, Michigan produced giants in the science and art of medicine, men who have made their marks in history: Victor C. Vaughn, Donald MacLean. Theodore McGraw—to mention a very few, were outstanding in their accomplishment.

As the profession increased in numbers and became more adept in working together, the turn of the century seemed to be a time to consolidate some of the ambitions of our leaders. The newly re-organized society and THE JOURNAL became a force in the community and in the medical world. Throughout the years THE JOURNAL has tried to carry out these policies, ever exploring them and expanding to new functions as new policies were conceived, new antagonisms developed, new projects adopted. We have continued this editorial policy by informing our members of the expanding ambitions, the increasing socio-economic pressures, and the needs to carry into fruition the various services which have been an outgrowth, very largely, of medical thought in our state.

The last two decades have seen concerted efforts from various pressure groups to limit and control the practice of medicine. At one time during the '30's, it was legislative threats from Washington; at other times, it was the long depression years, the years when most of our patients could not pay. Michigan was most active in establishing the Blue Shield program primarily so that the low income group of people might have the needed medical service assured to them. To our modern minds, it seems unbelievable but in 1939 and 1940 when our Blue Shield was established, 85 per cent of the families of the state of Michigan were earning less than $2,500 a year. The work of creating a Blue Shield program and of preserving that program, has been one of the functions of THE JOURNAL. A uniform fee schedule for governmental agencies was another item which helped to make living fees possible. To mention other things, the society had established numerous committees which had various functions and which worked voluntarily and diligently to carry on their program.

About twelve or thirteen years ago, THE JOURNAL adopted the policy, after long consideration of the publication committee and the executive committee of The Council, of making special numbers or parts of numbers available to these specific committees or functions of the society so that this accumulated knowledge could be made public. About that time we abandoned the old formal cover of THE JOURNAL and have not used two covers alike for many years. This year, we have followed through. The January number was devoted to the problems of the heart, to our committees and the Michigan Heart Association. The cover was suggestive of the immense progress that has been made in heart surgery, and shows a heart in many of its details with the quotation "serving the physician through research." The February issue was dedicated to the Genesee County Medical Society and featured their annual cancer day, announcing the program which was to appear April 17 in Flint. The cover featured a crab. The subject matter for March was child health and pictured a very happy looking child with her dolls. April was our cancer number and it showed Esculapius with his sword and shield fighting a many-headed monster—"kill cancer quackery." May had a woodland scene, a man, a child and a dog following the pathways—"exercise—the first step toward successful aging," and was devoted to geriatrics primarily. The June number for many years has been devoted to Michigan Medical Service. The cover had our Blue Shield, quotation "operation crossroads," with roadsigns and problems, and of course featured the tremendous questions and problems the State Medical Society and Michigan Medical Service have been trying to solve. In July came the announcements for the Annual Session—"new perspectives." The cover featured a globe with a part of the American hemisphere and a satellite. Was it a preconception of the sputnik which came later? August featured the Upper Peninsula Medical Society—their meeting, their problems, ambitions and questions and efforts. The cover showed a map of the Upper Peninsula, a pine tree, the Mackinac bridge and a freighter going under it. September was devoted to traffic accidents and the cover was driving hands on an automobile wheel with the speedometer registering 55 miles—title, "Prevent traffic accidents" and in red—"Your life is in your hands." This issue also carried our directory with a map of the state with the number of members inscribed in each county totalling 6,302. Mental health was the topic for October and featured two womens' faces, one with an improved mental expression. November had been assigned to "the physician as a citizen" and it worked out just right. It carried the reports of the Market Opinion Survey which had been conducted in Michigan, had been presented to the Annual Meeting and had made such a spectacular impression upon the whole medical world. A medical man was pointing to "progress." This was the largest number THE JOURNAL has ever attempted and the most elaborate. December, for many years, has been devoted to Michigan Clinical Institute and has a chart with a health line showing "yesterdays helpless now curable."

During the year, we have published original articles with 153 authors, of whom nine appeared twice. This is a very large distribution of our authors and presents the activity of a goodly percentage of our membership in the scientific field. We have published abstracts of thirty-seven books, most of which have been presented to the reviewers or deposited in some of our libraries. We have prepared and published eighty-one editorials, a very few on scientific subjects conforming with a specific feature of that particular number of THE JOURNAL, and these by guest editorial writers. Most of our editorials have been along the socio-economic or legislative interest of the profession. We have attempted to furnish to our readers in Michigan, the very best medical research and reporting. We have published 116 "in memoriam" testimonials including those of two past presidents: J. D. Brook of Grand Rapids and R. S. Morrish of Flint. We also memorialized the founder of the printing company which has published our JOURNAL for so many years, John Robert Bruce.

The size of THE JOURNAL has been increasing. In 1953, we published 1414 pages in 1954 we published 1454 pages; in 1955 we published 1538 pages; in 1956 we published 1578 pages, and in 1957 we published 1646 pages. That does not report the whole story. In 1957, we accepted many more "tipped-in" double pages or more from the advertisers.

A survey of the last six months and what they contain follows: Under the word text, we have included all society materials, original articles, editorials, news and book reviews, tables of contents, lists of committees, everything strictly referring to the Society. Under advertising, we have included all the pages devoted to advertising. In July, we published 99 pages of text with 57 of advertising; in August, there were 99 pages of text and 51 of advertising; in September, there were 68 pages of text and 72 of advertising; in October, there were 80 pages of text and 78 of advertising; in No-

vember, there were 102 pages of text and 72 of advertising; and in December, there were 92 pages of text and 74 of advertising.

All of this adds up to 968 pages, but the numbered pages were only 842. The extra 126 pages were made up of "tipped-in" advertising and inserts in the center. We had one four-page "tipped-in" insert in the November number calling special attention to our membership of certain items and "principles of procedure." The first six months of the year were not reviewed with the same idea in mind. We wish to call special attention to the November number which we mentioned as being the largest we have ever published. That number had nine "tipped-in" inserts, the special four-page list of principles and procedure mentioned, and twenty-two pages of advertising. Every one of these "tipped-in" inserts has to be hand done and separately glued into the assembled JOURNAL before it is stapled and bound. In many of these cases, the pages had to be slit in order to allow the insertion in the proper space. This procedure delayed that particular number of THE JOURNAL for two weeks in the process of preparation.

We are happy to see the need of this special advertising. It pays extra and shows the appreciation of our advertisers for our value as an advertising medium. This necessarily adds hundreds of labor days to the publication. We have been sending our material to the printer approximately a week earlier than previously, and still we have not caught up with our date line.

The editor wishes to report that he attended the Conference of Editors and editorial personnel in Chicago in October—a two-day session—and was highly gratified at the reception. Mr. O. M. Forkert, who two years ago at the previous meeting of this group, surveyed all the state medical journals and made critical analyses of them, was very complimentary to our JOURNAL. He said that by searching diligently, he could find only one or two spots to criticize. Last year in our President's page, we had Dr. Arch Walls looking away from his text and from the reader. That has been corrected with Dr. Slagle this year. He was very much interested and spent a whole noon with the editor to learn our method of procedure. He wanted to know who prepared our editorials, being of the opinion that it was too much of a job to expect from one man and did we assign it to various members of the publication committee. The editor told him what our publication committee and our executive committee have known for fifteen years. The preliminary form for the editorials is dittoed and submitted for review, criticism and comments to the publication committee, the President, the President-Elect, Secretary, Executive Director, Chairman of the Council, Vice Chairman, and others. If writing about some particular topic, various members of the society having special knowledge are also consulted. We send out about fifteen of these copies every month. Mr. Forkert told the group of this procedure, complimenting us very highly, because it accomplishes several purposes—an invitation for suggestions, determination of clarity of expression, faithful interpretation of the society's ideals, and a checking from those with an exact knowledge which the editor might not have. It also furnishes a sharing of the responsibility of having spoken the true opinions of the society with those who are making those decisions.

One of the editors told us of an experience he had. For several years, he had consulted a particular friend in the preparation of his editorials. One month not long ago, this friend being out of town, he sent his unchecked editorials to the printer. When the friend came home and read the editorial comments, they sent a truck to the post office, gathered up the whole issue of THE JOURNAL, took it back to the printers, took the covers off, the stitching out, reprinted eight pages, rebound, restitched and remailed. That editor was very happy with the suggestion coming from Michigan and says he will never be caught again in that manner.

Most of our state medical journals do not publish many editorials but assign certain members of the editorial staff to write the editorial for designated numbers. Some invite guest editorial writers to prepare a special editorial. We were complimented from many sources on THE JOURNAL and its appearance, especially the entirely new covers at every issue with no advertising on the cover.

The editor is happy to express to his confreres of the Publication Committee, the Executive Committee and The Council as well as other advisors in the official family, for their aid and advice in the conduct of his work. It is the labor in which he is happy and for which he wishes to express his grateful satisfaction in the way his efforts have been accepted.

Respectfully submitted,
WILFRID HAUGHEY, M.D.
Editor

MSMS 1958 BUDGET ESTIMATES

GENERAL FUND

ACCOUNT TITLE	1958 Estimate
INCOME:	
5250 members @ $60.00	$315,000.00
Less: $1.50 to THE JOURNAL	7,875.00
$6.25 to Public Education	32,812.50
$3.50 to Public Service	18,375.00
$5.25 to Professional Relations	27,562.50
$10.00 to MSMS Headquarters Fund	52,500.00
$2.00 to Building Maintenance Fund	10,500.00
$3.00 to Public Education Reserve	15,750.00
Balance to General Fund @ $28.50	$149,625.00
Interest and Miscellaneous Income	7,000.00
TOTAL FUNDS AVAILABLE	$156,625.00
EXPENSES: (Administrative and General)	
Printing, Mailing and Postage	$ 12,000.00
Office Supplies	4,000.00
Insurance and Bonds	4,500.00
Auditing	750.00
Salaries: Administrative and Office (Including Legal Counsel)	32,656.00
General Counsel Expense	500.00
Equipment and Repairs	3,000.00
Telephone and Telegraph	7,000.00
Taxes (Other than property)	2,300.00
Miscellaneous Expenses and Contributions	2,000.00
Employe's Retirement Trust	10,000.00
I.B.M.	1,800.00
Total Administrative and General Expenses	$ 80,506.00
EXPENSES: (Society Activities)	
Council Expense	$ 19,000.00
AMA Delegates and Alternates	7,000.00
General Society Travel and Entertainment	7,500.00
Officers Travel	5,500.00
Secretary's Letters and Office Expense	800.00
Woman's Auxiliary	600.00
Dues Collection Expense	3,000.00
Total Society Activities	$ 43,400.00
EXPENSES: (Committees)	
Cancer Coordinating Committee	$ 1,000.00
Child Welfare Committee	300.00
National Defense Committee	400.00
Geriatrics Committee	500.00
Industrial Health	100.00
Legislative	1,200.00
Maternal Health	450.00
Mental Health	450.00
Michigan Health Council	10,000.00
Postgraduate Medical Education	3,000.00
Preventive Medicine	100.00
Permanent Conference Committee (Rehabilitation Conference $200.00)	450.00
Rural Medical Service	150.00
Scientific Radio	1,000.00
Tuberculosis Control	200.00
Venereal Disease	100.00
Beaumont Memorial Restoration	—0—
Highway Accident Committee	520.00
Miscellaneous Committees	2,400.00
Iodized Salt	500.00
Advisory Committee to Medical Assistants	300.00
Medical Economics and Ethics Courses	262.00
Big Look Committee	500.00
Uniform Fee Schedule for Government Agencies	400.00
Total Committee Expense	$ 24,282.00

TOTAL GENERAL FUND EXPENSES	$148,188.00
GAIN OR LOSS FOR THE YEAR (G)	8,437.00
BALANCE FROM PRIOR YEARS	133,962.62
	$142,399.62
NET GAIN OR LOSS FROM ANNUAL SESSION AND THE JOURNAL (L)	7,628.00
BALANCE TO FUTURE YEARS	$134,771.62

BUILDING MAINTENANCE FUND

INCOME:	
Allocation from membership dues	$ 10,500.00
EXPENSES:	
Maintenance: Utilities, Decorating, supplies, etc.	2,800.00
Salaries: Janitor	1,800.00
Property Taxes	1,050.00
Insurance: Fire and Liability	500.00
Depreciation	1,600.00
Furnishings	—0—
Remodeling (roof)	500.00
Parking Area	—0—
Miscellaneous	200.00
Total Building Maintenance Expenses	$ 8,450.00
GAIN OR LOSS FOR THE YEAR (G)	2,050.00
BALANCE FROM PRIOR YEARS	16,983.53
BALANCE TO FUTURE YEARS	$19,033.53

MSMS HEADQUARTERS FUND

INCOME:	
Allocation from membership dues	$ 52,500.00
Balance from prior years	28,135.00
Total MSMS Headquarters Fund	$ 80,635.00

CONTINGENT FUND

INCOME:	
Allocation from membership dues	—0—
Balance from prior years	53,614.34
Total Contingent Fund	$ 53,614.34

ANNUAL SESSION

ACCOUNT

INCOME:	
Booth Sales: 102 spaces	$ 23,500.00
EXPENSE:	
Scientific Meeting	$ 3,500.00
Exhibit	4,000.00
Registration and Hotel	900.00
State Society and Officers Night	3,500.00
Promotion: Printing, Mailing, Postage and Scientific Work Committee	2,000.00
Press Expense	2,000.00
Salaries	5,500.00
House of Delegates Expense	2,000.00
Miscellaneous Expenses	500.00
Total Annual Session Expense:	$ 23,900.00
GAIN OR LOSS ON ANNUAL SESSION (L)	$400.00

MICHIGAN CLINICAL INSTITUTE

INCOME:	
Booth Sales: 73 spaces	$ 13,080.00
EXPENSES:	
Scientific Meeting	$ 2,000.00
Exhibit	4,000.00
Registration and Hotel	700.00
Promotion: Printing, Mailing and Postage	2,000.00
Press	1,700.00
Salaries	1,500.00
Residents and Interns Conference	150.00
Miscellaneous Expense	500.00
Total MCI Expense	$ 12,550.00
GAIN OR LOSS ON MCI (G)	$ 530.00

THE JOURNAL

ACCOUNT

INCOME:	
Allocation from membership dues	$ 7,875.00
Subscriptions—non-members	750.00
Advertising sales	97,987.00
Reprint and Cut Sales	4,000.00
Miscellaneous Income	—0—
Total Income	$110,612.00
EXPENSES:	
Editor's Secretary	$ 1,800.00
Editor's Expense	3,000.00
Printing, Mailing and Postage	63,000.00
Reprint and Cut Expense	4,000.00
Salaries	21,070.00
Discounts and Commissions	25,000.00
Miscellaneous Expenses	500.00
Total Expenses	$118,370.00
GAIN OR LOSS ON THE JOURNAL (L)	$ 7,758.00

PUBLIC EDUCATION RESERVE

ACCOUNT

INCOME:	
Allocation from membership dues	$15,750.00
Balance from prior years	74,084.00
Total Public Education Reserve	$ 89,834.00

PUBLIC EDUCATION ACCOUNT

INCOME:	
Allocation from membership dues	$ 32,812.50
Other income	100.00
Total Income	$ 32,912.50
EXPENSES:	
Committee Meetings	$ 500.00
Equipment and Repairs	1,500.00
Printing, Mailing and Postage	1,500.00
Office Supplies	2,000.00
Salaries	20,700.00
Telephone and Telegraph	1,000.00
Travel and Entertainment	6,000.00
Exhibit Expenses	2,000.00
Publications, Pamphlets, Clippings	1,500.00
Radio, TV and Cinema	6,000.00
Miscellaneous Expense	800.00
Library	3,000.00
Survey	—0—
Total Expense	$ 46,500.00
GAIN OR LOSS FOR THE YEAR (L)	13,587.50
BALANCE FROM PRIOR YEARS	40,765.04
BALANCE TO FUTURE YEARS	$ 27,177.54

PUBLIC SERVICE ACCOUNT

TITLE

INCOME:	
Allocation from membership dues	$ 18,375.00
EXPENSES:	
Salaries	$ 20,700.00
Telephone and Telegraph	600.00
Travel and Entertainment	6,000.00
Rural Health Conference	131.14
Miscellaneous Expenses	—0—
Committee Meetings	100.00
Total Expenses	$ 27,531.14
GAIN OR LOSS FOR THE YEAR (L)	9,156.14
BALANCE FROM PRIOR YEARS	2,761.86
BALANCE TO FUTURE YEARS (L)	$ 6,394.28

PROFESSIONAL RELATIONS

INCOME:	
Allocation from membership dues	$ 27,562.50
EXPENSES:	
Rent to Wayne County Medical Society	$ 720.00
Salaries	20,700.00
Telephone and Telegraph	1,000.00
Travel and Entertainment	6,000.00
National Meeting Expense	2,000.00
County Secretary's—P.R. Conference	6,135.92
County Society & Field Secretary Meetings	500.00
Woman's Auxiliary	1,000.00
Miscellaneous Expense	100.00
Committee Meetings	—0—
Printing, Mailing and Postage	1,000.00
Total Expenses	$ 39,155.92
GAIN OR LOSS FOR THE YEAR (L)	11,593.42
BALANCE FROM PRIOR YEARS	4,423.70
BALANCE TO FUTURE YEARS (L)	$ 7,169.72

RHEUMATIC FEVER CONTROL PROGRAM

TITLE

INCOME:	
From Michigan Heart Association	$ 15,000.00
EXPENSES: (Central Office)	
Committee Meetings	600.00
Equipment and Repairs	200.00
Payroll Taxes	350.00
Printing, Mailing and Postage	1,750.00
Office Supplies	100.00
Publications and Pamphlets	—0—
Salaries: Administrative and Office	15,000.00
Travel	1,000.00
Fellowships	3,000.00
Telephone and Telegraph	—0—
Laboratory Aid Plan	—0—
Travel Fellowships	—0—
Annual Rheumatic Fever Day	—0—
Circulating Exhibits	—0—
Total Central Office Expense	$ 22,000.00

EXPENSES: (Control Centers)	
Alpena	500.00
Ann Arbor	800.00
Bay City	200.00
Benton Harbor	—0—
Detroit	500.00
Grand Rapids	1,500.00
Jackson	—0—
Kalamazoo	1,200.00
Lansing	—0—
Muskegon	200.00
Petoskey	100.00
Pontiac and Royal Oak	100.00
Saginaw	100.00
Sault Ste. Marie	—0—
Traverse City	1,000.00
Total Control Center Expenses	$6,200.00
Total Rheumatic Fever Expenses	28,200.00
GAIN OR LOSS FOR THE YEAR (L)	13,200.00
BALANCE FROM PRIOR YEARS	12,679.95
BALANCE TO FUTURE YEARS (L)	$ 520.05

REPORT OF KNOSTMAN & SMITH, CPA—1957

Executive Committee of the Council
Michigan State Medical Society

We have examined the Statement of Financial Condition of the MICHIGAN STATE MEDICAL SOCIETY, Lansing, Michigan, as at November 30, 1957, and the related statements of income and expense and fund transactions for the eleven-month period then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying Statement of Financial Condition and related statements of income and expense and fund transactions, presents fairly the position of the MICHIGAN STATE MEDICAL SOCIETY as at November 30, 1957, and the results of its operations for the eleven-month period then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

KNOSTMAN & SMITH
Certified Public Accountants

Lansing, Michigan
December 27, 1957

We submit the following comments relative to our examination of the MICHIGAN STATE MEDICAL SOCIETY, Lansing, Michigan, for the eleven-month period ended November 30, 1957.

HISTORY

The MICHIGAN STATE MEDICAL SOCIETY was organized on September 17, 1910, under the laws of the State of Michigan, as a non-profit corporation. The charter has been extended for a period of thirty years from September 17, 1940. The Society is affiliated with the American Medical Association, and it charters county medical societies within the State of Michigan. The purposes of the Society are the promotion of the science and art of medicine, the protection of the public health, and the betterment of the medical profession. In the furtherance of these purposes, the Society publishes "The Journal of the Michigan State Medical Society."

COMMENTS

The commercial bank account maintained at the Michigan National Bank, Lansing, Michigan, was reconciled to your books of account, and further confirmed by direct correspondence with the bank as at November 30, 1957.

Confirmation of the treasurer's account as at November 30, 1957, was received from the Michigan National Bank, Grand Rapids, Michigan. The savings account in an amount of $10,000.00 plus $150.56 interest as at November 30, 1957, was confirmed by direct correspondence with the Michigan National Bank, Lansing, Michigan.

Petty cash in the Lansing office, in an amount of $36.61, was counted by our representative. Cash of $50.00 in the Detroit office was not verified.

Direct confirmations of Accounts Receivable have been mailed. A small percentage of replies have been received by our office. Your office will be notified in the event of negative replies. An aging analysis of the accounts by the month of charge is as follows:

September, October, November	$17,243.80
June, July, August	114.98
Over six months	2,018.39
TOTAL	$19,377.17

The employes portion of insurance premiums applicable to the Society retirement plan ($1,553.07 at November 30, 1957) are to be reimbursed to the Society via a payroll checkoff.

A summary of the 1957 premium costs is as follows:

	Total	*Society Share*	*Employee Share*
Premium—1 year	$19,699.72	$10,680.47	$9,019.25
Adjustments	860.65	483.05	377.60
NET	$18,839.07	$10,197.42	$8,641.65
Collections from Employees	7,088.58		7,088.58
	$11,750.49		$1,553.07
Due from Employees in November 1957 and January, 1958	1,553.07		1,553.07
NET SOCIETY COST	$10,197.42	$10,197.42	$ —0—

Schedule No. 10 sets forth in detail the changes in your investments during the period, together with an analysis of interest received and amortization taken. Securities were confirmed by the Michigan National Bank, Grand Rapids, Michigan, in a letter to our office. The letter was dated December 18, 1957.

Real estate owned and applicable depreciation allowances are set forth in Schedule No. 11.

The cost of equipment for a library was charged to expense of the Public Education Program.

Office equipment purchased during the period under review was charged to expense in acordance with the Society policy of not reflecting equipment as an asset.

Membership dues for the period were reconciled to the 5,694 membership cards issued to paying members.

Confirmations were mailed to county Societies reporting dues of $10,000.00 or more for the eleven month period ended November 30, 1957. Your office will be notified of any negative confirmations.

Both space income for the Annual Session and the Michigan Clinical Institute was verified by our representative, and a test check of JOURNAL Advertising was traced through your books of account.

Net gain for all society functions for the eleven-month period ended November 30, 1957 was $62,415.11, the detail of which is shown in Exhibit C.

Respectfully submitted,
KNOSTMAN & SMITH
Certified Public Accountants

NOTE: The 1957 actual expenses were for an eleven-month period, as the books were closed and audit made as of November 30, 1957 for this one year only in order to change the accounting period to December 1-November 30.

STATEMENT OF INCOME AND EXPENSES
December 24, 1956, to November 30, 1957

INCOME		
Membership dues	$160,043.96	
Miscellaneous	172.27	
Interest income (Schedule 10)	6,544.05	
Amortization (Schedule 10)	660.03	$167,420.31
OTHER INCOME		
Annual Session (Schedule 2)	426.54	
Michigan Clinical Institute (Schedule 3)	(168.34)	
The Journal (Schedule 4)	12,411.81	12,670.01
TOTAL INCOME		$180,090.32
EXPENSES		
Administrative and general (Schedule 1)	75,637.03	
Society activity (Schedule 1)	39,042.99	
Committee expenses (Schedule 1)	21,318.24	135,998.26
NET GAIN		$ 44,092.06

EXPENSES
December 24, 1956, to November 30, 1957

ADMINISTRATIVE AND GENERAL		
Printing, mailing and postage		$ 8,470.42
Office supplies		4,781.46
Insurance and fidelity bonds		1,749.79
Auditing		750.00
Salaries—Administrative and office		32,954.79
General counsel retainer and expense		484.35
Equipment and repairs		4,304.46
Telephone and telegraph		6,018.21
Payroll taxes		2,687.07
Miscellaneous expense		1,484.53
Employee's retirement trust		10,197.42
International Business Machines		1,754.53
TOTAL ADMINISTRATIVE AND GENERAL EXPENSES		$75,637.03
SOCIETY ACTIVITIES		
Council expense		$18,605.60
Delegates and Alternates to AMA		5,657.99
General Society travel and entertainment		6,117.85
Officers' travel		4,239.12
Secretaries' letters		789.17
Woman's Auxiliary		600.00
Dues collection expense		3,033.26
TOTAL SOCIETY ACTIVITIES EXPENSES		$39,042.99
COMMITTEE EXPENSES		
Legislative		$ 1,437.10
Postgraduate medical education		3,043.09
Preventive medicine		84.99
Cancer Coordinating Committee		1,000.00
Child Welfare		211.68
Geriatrics		794.73
Industrial health		-0-
Maternal health		440.43
National Defense		512.22
Mental health		466.91
Scientific radio		1,196.97
Venereal disease		55.74
Tuberculosis Control		193.08
Michigan Health Council		10,000.00
Rural Medical Service		32.00
Highway Accident Committee		145.74
Beaumont Memorial Restoration		(1,198.58)
Permanent Conference Committee		266.74
Sundry committee expense		2,635.40
TOTAL COMMITTEE EXPENSES		$21,318.24
TOTAL EXPENSES (EXHIBIT B)		$135,998.26

INCOME AND EXPENSE OF THE ANNUAL SESSION
December 24, 1956, to November 30, 1957

INCOME	
Booth sales (132 spaces)	$30,977.50
TOTAL INCOME	$30,977.50
EXPENSES	
Scientific meeting	$ 3,084.47
Registration and hotel expense	836.37
Exhibit expense	5,480.98
State Society and Officers night	5,138.12
Promotion—printing, mailing, postage and Scientific Work Committee	1,469.07
Press expense	1,763.21
Salaries	7,456.99
House of Delegates	4,304.39
Miscellaneous expense	1,017.36
TOTAL EXPENSES	$30,550.96
GAIN OR (LOSS) ON ANNUAL SESSION	$ 426.54

INCOME AND EXPENSE OF THE MICHIGAN CLINICAL INSTITUTE
December 24, 1956, to November 30, 1957

INCOME	
Booth sales (75 spaces)	$13,650.00
TOTAL INCOME	$13,650.00
EXPENSES	
Scientific meeting	$ 1,840.82
Registration and hotel	655.51
Exhibit expense	4,087.50
Promotion—printing, postage, mailing and Committee Meetings	2,325.09
Press expense	1,845.92
Salaries	1,704.47
Residents and interns conference	81.63
Miscellaneous	1,277.40
TOTAL EXPENSES	$13,818.34
GAIN OR (LOSS) ON M. C. I.	$ (168.34)

INCOME AND EXPENSE OF "THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY"
December 24, 1956, to November 30, 1957

INCOME	
Allocation from dues	$ 8,419.50
Subscriptions of others	712.11
Advertising sales	99,805.72
Reprint and cut sales	4,178.73
Miscellaneous (cash discounts)	-0-
TOTAL INCOME	$113,116.06
EXPENSES	
Editors expense	$ 2,750.00
Printing, mailing and postage	58,750.59
Reprint and cut	3,827.97
Salaries	13,102.98
Discounts and commissions	22,272.71
Miscellaneous	-0-
TOTAL EXPENSES	$100,704.25
GAIN ON THE JOURNAL	$ 12,411.81

INCOME AND EXPENSE OF THE BUILDING MAINTENANCE FUND
December 24, 1956, to November 30, 1957

INCOME	
Allocation from 1957 dues	$11,226.00
TOTAL INCOME	$11,226.00
EXPENSES	
Maintenance—utilities, decorating, supplies, yard work, etc.	2,888.70
Janitor—salary	1,654.47
Taxes—property	1,021.74
Insurance	474.65
Depreciation	1,636.92
Reception room furnishings	—0—
Remodeling	531.03
Miscellaneous	159.90
TOTAL EXPENSES	$ 8,367.41
GAIN ON BUILDING MAINTENANCE FUND	$ 2,858.59

INCOME AND EXPENSE OF THE PUBLIC EDUCATION PROGRAM
December 24, 1956, to November 30, 1957

INCOME	
Allocation from dues	$ 35,081.25
Miscellaneous (commissions)	137.95
TOTAL INCOME (Note 1)	$ 35,219.20
EXPENSES	
Committee meetings	422.30
Equipment and repairs	1,017.46
Printing, mailing and postage	1,494.83
Office supplies	1,000.50
Salaries	16,405.63
Telephone and telegraph	584.34
Travel and entertainment	12,023.81
Publications, pamphlets and clippings	1,081.40
Radio, television and cinema	2,909.68
Exhibit expense	1,101.34
Miscellaneous	620.79
Library	4,670.93
Survey	25,013.02
TOTAL EXPENSES	$ 68,346.03
GAIN OR (LOSS) DURING PERIOD	$(33,126.83)

Note 1
This does not include $16,839.00 allocation of dues specifically set aside for the Public Education Reserve per Exhibit C.

INCOME AND EXPENSE OF THE PUBLIC SERVICE ACCOUNT

December 24, 1956, to November 30, 1957

INCOME	
Allocation from dues	$19,645.50
TOTAL INCOME	$19,645.50
EXPENSES	
Committee meetings	—0—
Salaries	$16,405.63
Telephone and telegraph	293.06
Rural health conference	131.14
Travel and entertainment	3,728.97
TOTAL EXPENSES	$20,558.80
GAIN OR (LOSS) DURING PERIOD	$ (913.30)

INCOME AND EXPENSE OF THE PROFESSIONAL RELATIONS ACCOUNT

December 24, 1956, to November 30, 1957

INCOME	
Allocation from dues	$29,468.24
TOTAL INCOME	29,468.24
EXPENSES	
Postage, mailing and printing	$ 675.89
Rent to Wayne County Medical Society	480.00
Salaries	16,405.63
Telephone and telegraph	439.59
Travel and entertainment	3,519.64
National meeting expense	1,484.08
Public relations—County Secretarys' Conference	6,194.63
County Society and Field Secretarys' meetings	—0—
Womans' Auxiliary	742.58
Miscellaneous	—0—
TOTAL EXPENSES	$29,942.04
GAIN OR (LOSS) DURING PERIOD	$ (473.80)

INCOME AND EXPENSE OF THE RHEUMATIC FEVER CONTROL PROGRAM

December 24, 1956, to November 30, 1957

INCOME	
Grant from Michigan Heart Association	$15,294.75
TOTAL INCOME	$15,294.75
EXPENSES (Central office)	
Committee meetings	$ 704.52
Equipment and repairs	—0—
Payroll taxes	147.45
Printing, mailing and postage	151.95
Office supplies	—0—
Publications and pamphlets (purchased)	—0—
Salaries—administrative and office	916.66
Travel	—0—
Fellowships	2,272.78
Laboratory Aid Plan	—0—
Telephone and telegraph	—0—
Travel Fellowships	—0—
Annual Rheumatic Fever Day	—0—
Circulating Exhibits	—0—
TOTAL CENTRAL OFFICE EXPENSES	$ 4,193.36
CONTROL CENTERS	
Alpena	$ 200.00
Ann Arbor	1,317.50
Bay City	715.00
Benton Harbor	75.00
Detroit	—0—
Grand Rapids and Muskegon	1,675.00
Jackson	—0—
Kalamazoo	1,127.50
Lansing	—0—
Petoskey	—0—
Pontiac and Royal Oak	—0—
Saginaw	—0—
Sault Ste. Marie	—0—
Traverse City	987.00
TOTAL CONTROL CENTERS	$ 6,097.00
TOTAL EXPENSES	$10,290.36
GAIN OR (LOSS) DURING PERIOD	$ 5,004.39

STATEMENT OF FINANCIAL CONDITION

November 30, 1957

ASSETS

CASH ON HAND AND IN BANKS			
Michigan National Bank Lansing, Michigan		$ 15,138.21	
Grand Rapids, Michigan (Treasurer's account)		15,122.70	
Savings account		10,150.56	
Office cash (Lansing and Detroit, Michigan)		86.61	$ 40,498.08
ACCOUNTS RECEIVABLE			
Advertising, allowances and other items		$ 19,367.54	
Collection expense		9.63	
Due from employees-Insurance premiums		1,553.07	
Employee advances		376.98	
		$ 21,307.22	
LESS Allowance for doubtful accounts		126.30	$ 21,180.92
INVESTMENTS (Schedule 10)			
Held for Public Education		58,000.00	
Held for General Fund		212,455.28	$270,455.28
(Market or Redemption Value $265,509.43)			
PROPERTY AND EQUIPMENT (Schedule 11)			
Land		$ 10,000.00	
Office building	$ 34,500.00		
Lot adjoining office building	6,000.00		
Building improvements	5,664.06		
Building equipment	3,836.09		
Parking lot	1,913.60	$ 51,913.75	
		$ 61,913.75	
LESS Depreciation allowance		10,271.47	$ 51,642.28
OTHER ASSETS			
Prepaid expenses		521.77	
Deposit on purchase of land		5,000.00	$ 5,521.77
TOTAL ASSETS			$389,298.33

LIABILITIES

ACCOUNTS PAYABLE			
Federal Unemployment Tax			$ 211.17
Michigan Unemployment Tax			167.22
Unpaid invoices			16,802.07
Payroll taxes—payable			4,707.83
TOTAL ACCOUNTS PAYABLE			$ 21,888.29
SOCIETY EQUITIES			
RESERVED FOR SPECIAL PURPOSES			
Public Education Reserve	$ 74,084.00		
Public Education Program	40,765.04	$114,849.04	
Public Service Account		2,761.86	
Professional Relations Account		4,423.70	
Rheumatic Fever Control Program		12,679.95	
Contingent Fund		53,614.34	
Building Fund		16,983.53	
Headquarters Fund		28,135.00	
TOTAL RESERVED		$233,447.42	
General Society Equity 12-24-56	89,870.56		
Net gain for period (Exhibit B)	44,092.06	$133,962.62	
TOTAL EQUITIES (Exhibit C)			$367,410.04
TOTAL LIABILITIES AND EQUITIES			$389,298.33

INCOME AND EXPENSE SUMMARY
December 24, 1956, to November 30, 1957

	Balance 12-24-56	*Income For The Period*	*Expenses For The Period*	*Net Gain or (Loss)*	*Balance 11-30-57*
Equity—General Fund		$167,420.31	$135,998.26	$ 31,422.05	
Annual Session		30,977.50	30,550.96	426.54	
Michigan Clinical Institute	$ 89,870.56	13,650.00	13,818.34	(168.34)	$133,962.62
THE JOURNAL		113,116.06	100,704.25	12,411.81	
Contingent Fund	53,614.34	-0-	-0-	-0-	53,614.34
Building Fund	14,124.94	11,226.00	8,367.41	2,858.59	16,983.53
Public Education Reserve	57,245.00	16,839.00	-0-	16,839.00	74,084.00
Public Education Program	73,891.87	35,219.20	68,346.03	(33,126.83)	40,765.04
Public Service	3,675.16	19,645.50	20,558.80	(913.30)	2,761.86
Professional Relations	4,897.50	29,468.24	29,942.04	(473.80)	4,423.70
Rheumatic Fever Control Program	7,675.56	15,294.75	10,290.36	5,004.39	12,679.95
Headquarters Fund	—0—	28,135.00	-0-	28,135.00	28,135.00
TOTAL	$304,994.93	$480,991.56	$418,576.45	$62,415.11	$367,410.04

PROPERTY AND DEPRECIATION ALLOWANCES—November 30, 1957

	Date Acquired	Cost	Depreciation Allowance Prior Years	Remaining Cost Beginning Of Period	Estimated Life	Depreciation Expense 1957	Depreciation Allowance 11-30-57
Land	1951	$10,000.00	$	$10,000.00		$	$
Building	1951	34,500.00	6,200.00	28,300.00	30 (11 months)	1,054.00	7,254.00
		44,500.00	6,200.00	38,300.00		1,054.00	7,254.00
BUILDING IMPROVEMENTS							
New building entrance	1953	3,917.85	457.10	3,460.75	30 (11 months)	119.70	576.80
Remodel basement and storeroom	1956	1,746.21	29.10	1,717.11	30 (11 months)	53.35	82.45
		5,664.06	486.20	5,177.86		173.05	659.25
BUILDING EQUIPMENT							
Lighting	1952	2,121.50	707.15	1,414.35	15 (11 months)	129.70	836.85
Boiler	1952	1,714.59	571.44	1,143.15	15 (11 months)	104.72	676.16
		3,836.09	1,278.59	2,557.50		234.42	1,513.01
PARKING LOT	1953	1,913.60	669.76	1,243.84	10 (11 months)	175.45	845.21
LOT ADJOINING OFFICE BUILDING	1952	6,000.00		6,000.00			
		$61,913.75	$8,634.55	$53,279.20		$1,636.92	$10,271.47

SECURITIES OWNED—November 30, 1957

	Maturity Date	Face Value	Cost 12-24-56 (Book Value)	Redemption Value 11-30-57	Purchases During Period	Sales or Redemptions During Period	Amortization Debit Or (Credit)	Cost 11-30-57 (Book Value)	Interest Received To Last Interest Date
UNITED STATES GOVERNMENT SECURITIES									
Savings Bonds—series "G"	5-1-58	$ 5,000.00	$ 5,000.00	$ 4,960.00	$	$	$	$ 5,000.00	$ 125.00
Savings Bonds—series "G"	3-1-60	5,000.00	5,000.00	4,880.00				5,000.00	125.00
Savings Bonds—series "G"	8-1-58	30,000.00	30,000.00	29,580.00				30,000.00	750.00
Treasury Bond—series "B" 2¾%	4-1-80/75	8,000.00	8,160.66	7,385.00			(8.93)	8,151.73	220.00
Savings Bonds—series "K" 2.76%	6-1-66	45,000.00	45,000.00	43,605.00				45,000.00	621.00
Savings Bonds—series "K" 2.76%	7-1-66	4,000.00	4,000.00	3,876.00				4,000.00	110.40
Treasury Bond—2¼%	6-15,62/59	25,000.00	24,583.33	23,773.43			208.34	24,791.67	281.25
Treasury Bond—2½%	3-15-70/65	10,000.00	9,787.50	9,250.00			26.56	9,814.06	250.00
Treasury Bond—2½%	11-15-61	25,000.00	24,331.25	24,250.00			167.19	24,498.44	312.50*
Treasury Bond—2½%	11-15-61	35,000.00	33,932.51	33,950.00			266.87	34,199.38	875.00
Time Certificate—Michigan National Bank, 2½%, Dated 3-16-55 (Renewed)	Six months notice subject to renewal		25,000.00			25,000.00			1,657.29
Time Certificate—Michigan National Bank, 3%, Dated 10-7-57	30 days notice	25,000.00		25,000.00	25,000.00			25,000.00	
Time Certificate—Michigan National Bank, 2½%, Dated 3/18/55	30 days notice		15,000.00			15,000.00			466.05
Savings Deposit Receipt 10-24-57	Demand	15,000.00		15,000.00	15,000.00			15,000.00	
Time Certificate—Michigan National Bank, 3%	30 days notice	40,000.00		40,000.00	40,000.00			40,000.00	600.00
TOTAL SECURITIES		$272,000.00	$229,795.25	$265,509.43	$80,000.00	$40,000.00	$660.03	$270,455.28	$6,393.49
Interest on Savings Account									150.56
INTEREST INCOME									$6,544.05

*Interest of $312.50 due on Nov. 15, 1957, was deposited Dec. 11, 1957.

Note 1: $58,000.00 of securities are held for the Public Education Reserve.

MSMS RHEUMATIC FEVER CONTROL COMMITTEE

Statistical Report from January 1, 1957, to December 31, 1957

	*Total Register Jan. 1, 1957				Jan. 1, 1957, to Dec. 31, 1957				*Total Register Dec. 31, 1957			
	No. Adm.	Rh. F.	Reex.	Total	No. Adm.	Rh. F.	Reex.	Total	No. Adm.	Rh. F.	Reex.	Total
Alpena (19)	139	64	30	169	15	9	5	20	154	73	35	189
Ann Arbor (6)	243	231	327	570	25	13	50	75	268	244	377	645
Bay City (9)	229	85	92	321	7	3	1	8	236	88	93	329
Benton Harbor (14)	25	8	4	29	9	1	1	10	34	9	5	39
Detroit-Wayne (1)	312	54	8	320	18	5	4	22	330	59	12	342
Grand Rapids (3)	722	275	529	1251	14	5	16	30	736	280	545	1281
Jackson (15)	139	48	28	167	2	1	0	2	141	49	28	169
Kalamazoo (10)	588	183	634	1222	56	10	49	105	644	193	683	1327
Lansing (5)	115	13	20	135	1	0	0	1	116	13	20	136
Muskegon (11)	251	83	205	456	2	1	3	5	253	84	208	461
Petoskey (18)	23	21	16	39	INACTIVE				23	21	16	39
Pontiac-Royal Oak (2)	255	60	94	349	20	1	5	25	275	61	99	374
Saginaw (7)	91	27	8	99	25	3	0	25	116	30	8	124
Traverse City (13)	693	242	607	1300	50	46	80	130	743	288	687	1430
TOTALS:	3825	1394	2602	6427	244	98	214	458	4069	1492	2816	6885

*Cases and examinations on record from the beginning of the Center's activities.
**Number indicates rank of importance according to population.

UNORGANIZED CENTERS:
Battle Creek (12)
Flint (4)
Port Huron (16)

Inactive:
Benton Harbor (14)
Lansing (5)
Marquette (8)
Petoskey (18)
Sault Ste. Marie (17)

NOTE: Detroit Reported for 6 Months
Muskegon Reported for 6 Months
Lansing Reported for 2 Months

THE BOLD NEW LOOK

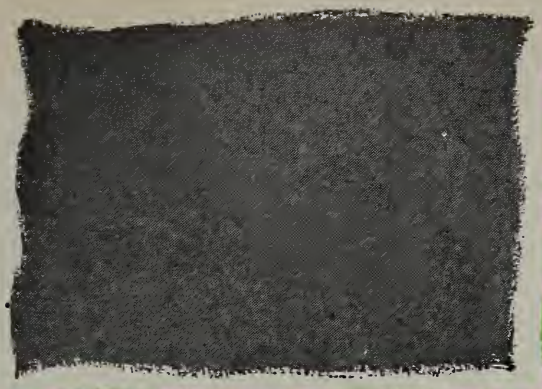
(Continued from Page 411)

remained through the years. Beginning in his local (Kent) county medical society, Hyland was tapped for committee work and subsequently reached the presidency of the group. His activities naturally attracted the attention of the MSMS and he began committee work, was a member of the House of Delegates and of The Council of MSMS and became its president in 1946. Following his term of office, he was elected Treasurer and continues in that post today.

On the national level, his influence also has been felt. For years, as head of the Michigan delegation to the American Medical Association, Doctor Hyland has been a driving force in improving the public relations and the practice of medicine, always tempering his enthusiasm for a project to meet the climate of the times; result: his batting average has remained high.

Believing in medical traditions, Doctor Hyland assiduously avoids the harsh glare of publicity. He much prefers the soft glow of personal satisfaction from a job well done.

If there really are only two kinds of organizations, the quick and the dead, Doctor Hyland intends that the American Medical Association remain in the first category, and thanks to his successful captaincy of the team, it looks like it will.



If Monilial overgrowth is a factor

Achrostatin* V

TETRACYCLINE (PHOSPHATE-BUFFERED) AND NYSTATIN

Combines ACHROMYCIN V with NYSTATIN

SUPPLIED:

CAPSULES contain 250 mg. tetracycline HCl equivalent (phosphate-buffered) and 250,000 units Nystatin. ORAL SUSPENSION (cherry-mint flavored) Each 5 cc. teaspoonful contains 125 mg. tetracycline HCl equivalent (phosphate-buffered) and 125,000 units Nystatin.

DOSAGE:

Basic oral dosage (6-7 mg. per lb. body weight per day) in the average adult is 4 capsules or 8 tsp. of ACHROSTATIN V per day, equivalent to 1 Gm. of ACHROMYCIN V.

ACHROSTATIN V combines ACHROMYCIN† V ... the new rapid-acting oral form of ACHROMYCIN† Tetracycline ... noted for its outstanding effectiveness against more than 50 different infections ... and NYSTATIN ... the antifungal specific. ACHROSTATIN V provides particularly effective therapy for those patients prone to monilial overgrowth during a protracted course of antibiotic treatment.

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, N. Y.

Lederle

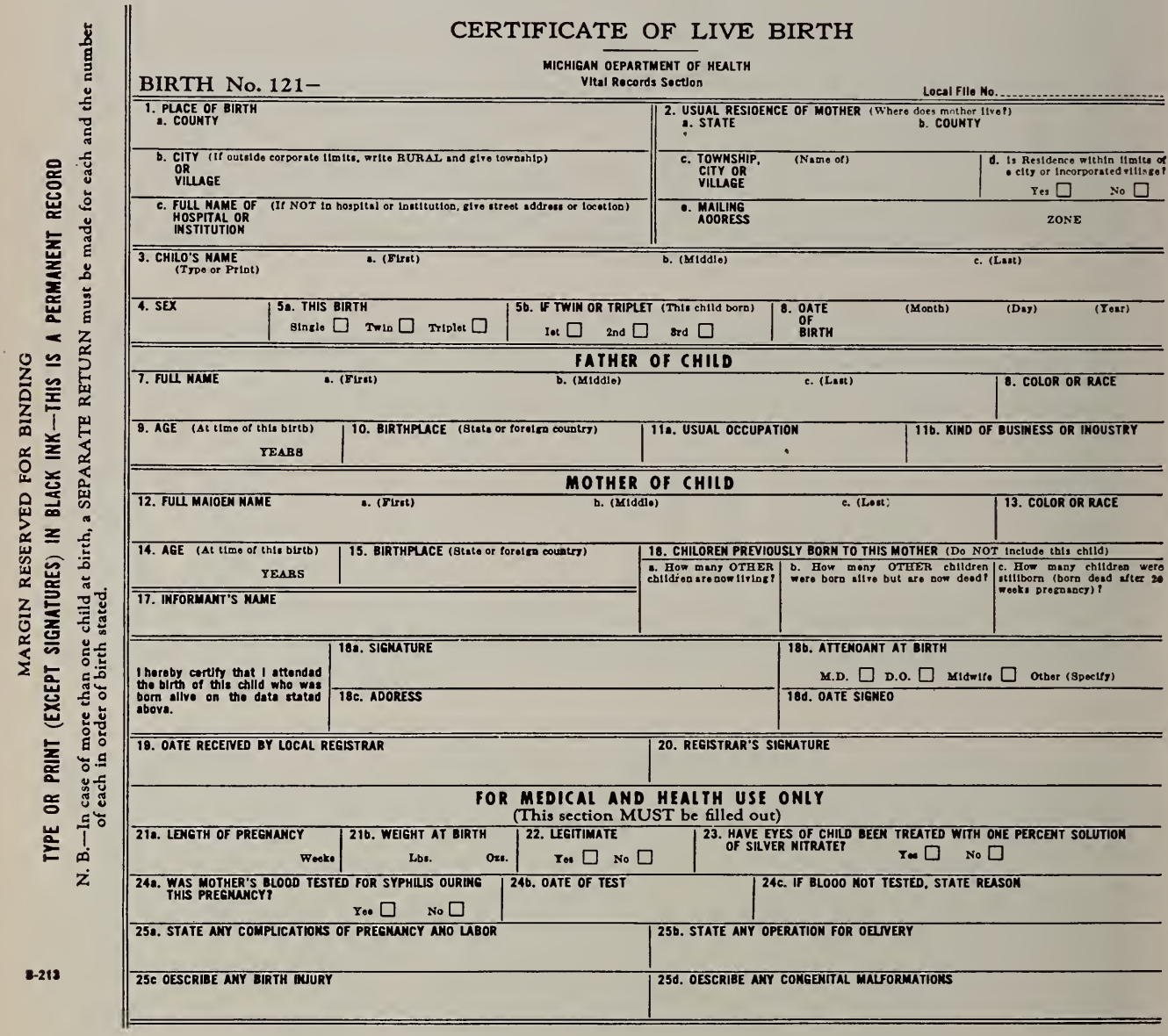
*Trademark †Reg. U. S. Pat. Off.

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

COMPLETION OF LOWER SECTION OF BIRTH CERTIFICATE

Among some physicians there is apparently a misunderstanding regarding the use and completion of birth certificate forms. Attention is called to the following:



MARGIN RESERVED FOR BINDING

TYPE OR PRINT (EXCEPT SIGNATURES) IN BLACK INK—THIS IS A PERMANENT RECORD

N. B.—In case of more than one child at birth, a SEPARATE RETURN must be made for each and the number of each in order of birth stated.

CERTIFICATE OF LIVE BIRTH

MICHIGAN DEPARTMENT OF HEALTH
Vital Records Section

BIRTH No. 121—

Local File No.

1. PLACE OF BIRTH
a. COUNTY
b. CITY (If outside corporate limits, write RURAL and give township) OR VILLAGE
c. FULL NAME OF HOSPITAL OR INSTITUTION (If NOT in hospital or institution, give street address or location)

2. USUAL RESIDENCE OF MOTHER (Where does mother live?)
a. STATE
b. COUNTY
c. TOWNSHIP, CITY OR VILLAGE (Name of)
d. Is Residence within limits of a city or incorporated village? Yes ☐ No ☐
e. MAILING ADDRESS
ZONE

3. CHILD'S NAME (Type or Print) a. (First) b. (Middle) c. (Last)

4. SEX
5a. THIS BIRTH Single ☐ Twin ☐ Triplet ☐
5b. IF TWIN OR TRIPLET (This child born) 1st ☐ 2nd ☐ 3rd ☐
6. DATE OF BIRTH (Month) (Day) (Year)

FATHER OF CHILD

7. FULL NAME a. (First) b. (Middle) c. (Last)
8. COLOR OR RACE
9. AGE (At time of this birth) YEARS
10. BIRTHPLACE (State or foreign country)
11a. USUAL OCCUPATION
11b. KIND OF BUSINESS OR INDUSTRY

MOTHER OF CHILD

12. FULL MAIDEN NAME a. (First) b. (Middle) c. (Last)
13. COLOR OR RACE
14. AGE (At time of this birth) YEARS
15. BIRTHPLACE (State or foreign country)
16. CHILDREN PREVIOUSLY BORN TO THIS MOTHER (Do NOT include this child)
a. How many OTHER children are now living?
b. How many OTHER children were born alive but are now dead?
c. How many children were stillborn (born dead after 20 weeks pregnancy)?
17. INFORMANT'S NAME

I hereby certify that I attended the birth of this child who was born alive on the date stated above.
18a. SIGNATURE
18b. ATTENDANT AT BIRTH M.D. ☐ D.O. ☐ Midwife ☐ Other (Specify)
18c. ADDRESS
18d. DATE SIGNED
19. DATE RECEIVED BY LOCAL REGISTRAR
20. REGISTRAR'S SIGNATURE

FOR MEDICAL AND HEALTH USE ONLY
(This section MUST be filled out)

21a. LENGTH OF PREGNANCY Weeks
21b. WEIGHT AT BIRTH Lbs. Ozs.
22. LEGITIMATE Yes ☐ No ☐
23. HAVE EYES OF CHILD BEEN TREATED WITH ONE PERCENT SOLUTION OF SILVER NITRATE? Yes ☐ No ☐
24a. WAS MOTHER'S BLOOD TESTED FOR SYPHILIS DURING THIS PREGNANCY? Yes ☐ No ☐
24b. DATE OF TEST
24c. IF BLOOD NOT TESTED, STATE REASON
25a. STATE ANY COMPLICATIONS OF PREGNANCY AND LABOR
25b. STATE ANY OPERATION FOR DELIVERY
25c DESCRIBE ANY BIRTH INJURY
25d. DESCRIBE ANY CONGENITAL MALFORMATIONS

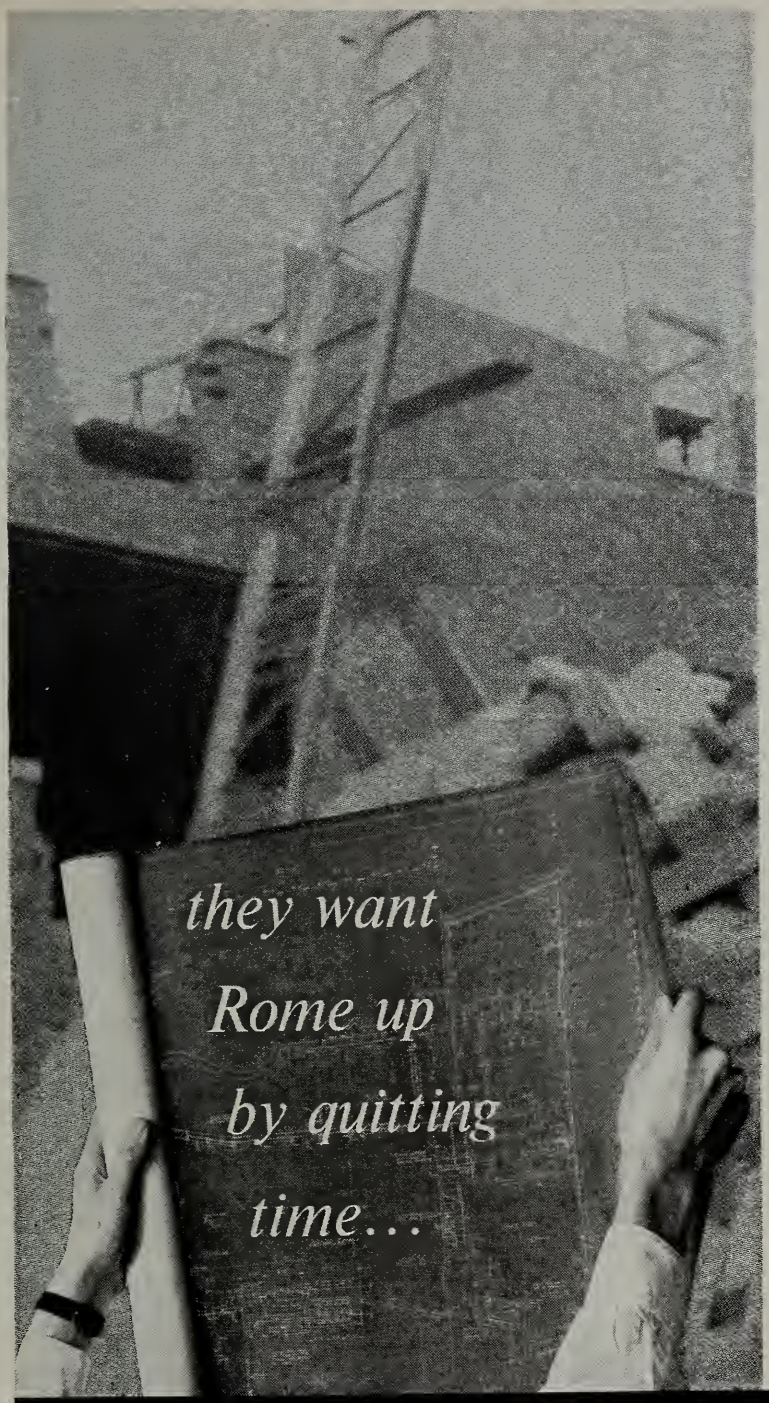
B-213

1. An entry must be made for each item on the birth certificate including the section "For Medical and Health Use Only."

2. In accordance with the act regulating the treating of the eyes of newborn infants, silver nitrate, 1.0 per cent solution in individual containers, is the prophylactic required to be used in each child's eyes immediately (within one hour) after birth unless the hospital staff has requested and received written permission from the State Health Commissioner for research in the use of a prophylactic other than silver nitrate. If such written permission has been given, Item 23 on the Birth Certificate should be checked "no" and the medication used indicated.

3. Items 24a, 24b and 24c on the birth certificate refer to the blood sample taken at the time of the first prenatal visit to the physician in compliance with the Prenatal Blood Test Law which states, "Every physician attending a pregnant woman in the State of

(Continued on Page 438)



To cut daytime lethargy

(and keep rauwolfia potency)

in treatment of hypertension:

Mounting clinical evidence confirms the view that HARMONYL produces much less lethargy while reducing blood pressure effectively. In the most recent study[1], HARMONYL was evaluated in comparison with reserpine and other rauwolfia alkaloids. HARMONYL *was the only alkaloid which produced a hypotensive response closely matching that of reserpine, coupled with a greatly reduced rate of lethargy.* Only one HARMONYL patient in 20 showed lethargy, while an average of 11 out of 20 showed lethargy with reserpine, and 10 out of 20 with the alseroxylon fraction. Abbott

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for your hypertensives who must stay on the job

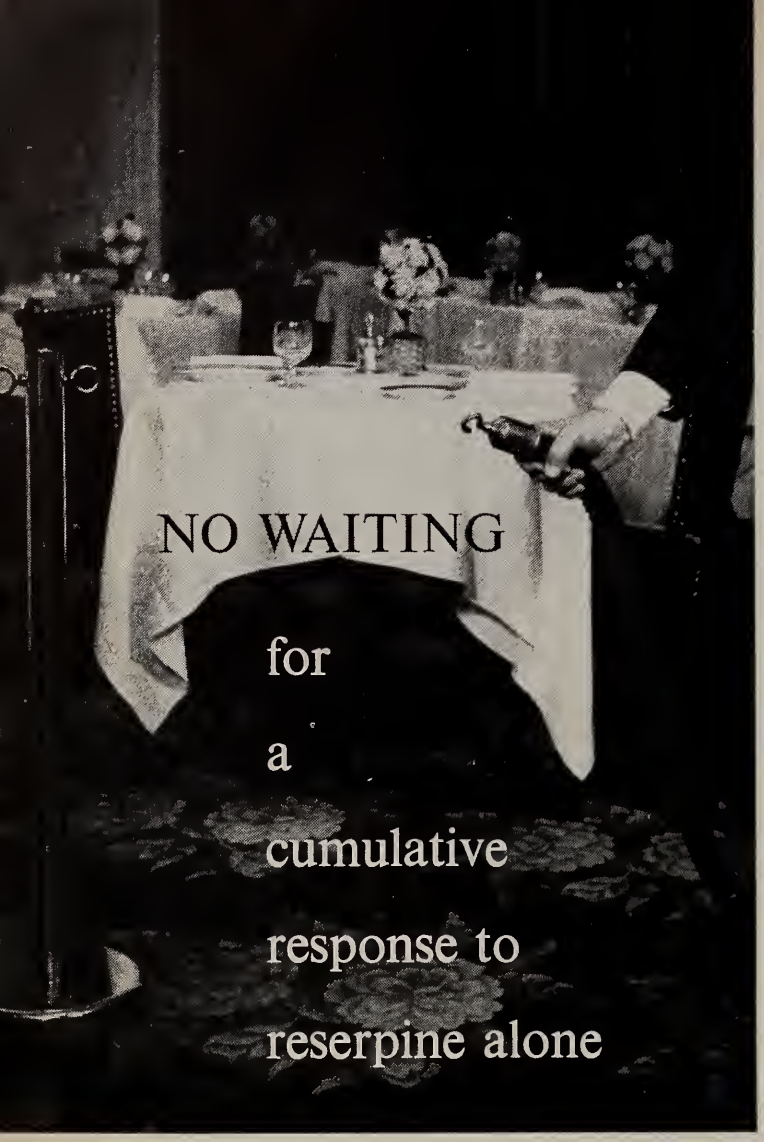
Harmonyl*

(OESERPIDINE, ABBOTT)

while the drug works effectively . . . so does the patient

1. Comparative Effects of Various Rauwolfia Alkaloids in Hypertension; *Diseases of the Chest*, in press.

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in anxiety and hypertension

NEW *fast-acting*

filmtab

Harmonyl-N*

(Harmonyl* and Nembutal®)

Calmer days, more restful nights starting *first* day of treatment, through synergistic action of HARMONYL (Deserpidine, Abbott) and NEMBUTAL (Pentobarbital, Abbott). Lower therapeutic doses, lower incidence of side effects. Each HARMONYL-N Filmtab contains 30 mg. NEMBUTAL Calcium and 0.25 mg. HARMONYL. Each HARMONYL-N *Half-Strength* Filmtab combines 15 mg. NEMBUTAL Calcium and 0.1 mg. HARMONYL. Abbott

®Filmtab—Film-sealed tablets, Abbott; pat. applied for

801060 *Trademark

COMPLETION OF BIRTH CERTIFICATE

(Continued from Page 436)

Michigan shall, in the case of each woman so attended, take or cause to be taken a sample of blood of such woman at the time of first examination, and submit such sample to an approved laboratory for a standard serological test for syphilis." A blood sample taken the day of delivery or after delivery does not fulfill the legal requirement of this law. The only exception to this is if the patient is not seen prior to delivery. If such is the case, it should be so stated in Item 24c. In all other instances Item 24b indicates the date the blood sample was taken by the physician at the time of the patient's first prenatal visit.

4. The Certificate of Live Birth is a legal document. Only one original form shall be completed for any live born infant. The yellow hospital work sheet may be used for hospital or physician's records.

AMENDMENT TO COMMUNICABLE DISEASE RULES AND REGULATIONS

The following amendment to the communicable disease rules and regulations was approved by the Council of Health on December 12, 1957.

FOODBORNE DISEASES AND POISONINGS

1. Foodborne diseases and poisonings are hereby added to the list of reportable diseases.

2. *Reporting.*—It shall be the responsibility of each local health officer to investigate all foodborne diseases and poisonings, or suspected foodborne diseases and poisonings originating or reported in his jurisdiction and to report immediately to the Michigan Department of Health by telephone or telegram. If the investigation discloses that the source of the foodborne disease or poisoning is outside of the area of his jurisdiction, the investigating health officer shall also notify, by telephone or telegram, the local health officer having jurisdiction of the area. If the source of the foodborne disease or poisoning is located out of this state, it shall be the duty of the Michigan Department of Health to notify immediately the appropriate state official having jurisdiction.

3. *Cases and Suspected Cases.*—All reported cases and suspected cases of foodborne diseases and poisonings shall be interviewed by the health officer or his representative who shall be responsible for conducting appropriate epidemiological studies. He shall keep the Michigan Department of Health informed as to epidemiological findings.

Health officers investigating foodborne diseases or poisonings shall obtain such samples as are necessary, and shall submit them in a manner approved by the state health commissioner to any of the Michigan Department of Health Laboratories or to a laboratory registered for bacteriologic and enteric diagnosis by the Michigan Department of Health.

SYMPOSIUM ON VENEREAL DISEASE

The Ninth Annual Symposium on Recent Advances in the Study of Venereal Diseases, sponsored by the U. S. Public Health Service, will be held May 12 and 13, 1958, at the Sheraton Hotel, Philadelphia, Pennsylvania. Michigan physicians are invited to participate in this symposium.



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SULFASUXIDINE*® PECTIN-KAOLIN-NEOMYCIN SUSPENSION

SOOTHING ACTION . . . Kaolin and pectin coat and soothe the inflamed mucosa, adsorb toxins and help reduce intestinal hypermotility.

BROAD THERAPY . . . The combined antibacterial effectiveness of neomycin and Sulfasuxidine is concentrated in the bowel since the absorption of both agents is negligible.

LOCAL IRRITATION IS REDUCED and control is instituted against spread of infective organisms and loss of body fluid.

PALATABLE creamy pink, fruit-flavored CREMOMYCIN is pleasant tasting, readily accepted by patients of all ages.

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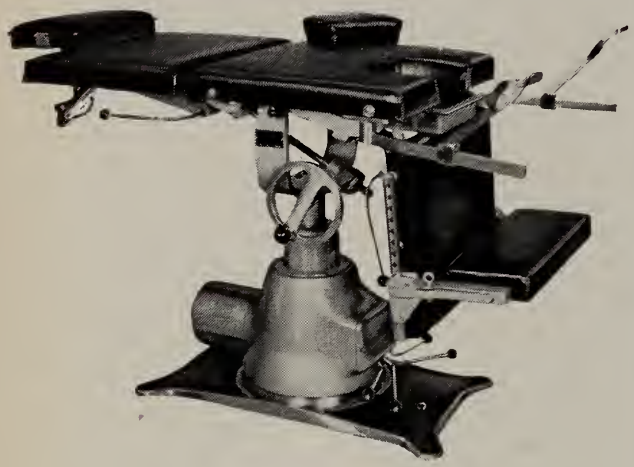
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The flexibility of the Universal Table is practically unlimited. It provides unusually effective facilities for an improved rectal posture (inverted knee-chest), Gyn and many other positions, including a relaxed approach in the treatment of child or baby.

The extreme low position of the Ritter Universal Table enables the debilitated or the elderly patient to get onto the table without a painful and at times hazardous maneuver. Table rotation of 180° saves you many steps each day and the rotation lock holds the table in any desired position.

Expertly designed, carefully built, this Ritter Universal Table is a sound long-term investment in convenience and efficiency—everything about the table speaks quality from its eye-appealing exterior to its innermost working parts.

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In Memoriam

JOHN P. CONNOLLY, M.D., Detroit physician, died December 31, 1957, at the age of fifty-three. A native of Austria, Doctor Connolly came to Detroit in 1913. He was a graduate of the University of Detroit and the Detroit College of Medicine in 1933.

A staff member of Mount Carmel Hospital, he is survived by a brother, Frank O. Connolly, M.D. He was a member of the Knights of Columbus.

HUGH WILLIAM HENDRY, M.D., Detroit physician, died November 26, 1957, aged sixty-four. Born in Toronto, Ontario, he served with the Canadian Expeditionary Force in France, 1917-1918. Following his discharge from military service, Doctor Hendry entered the University of Toronto and obtained his medical degree from that institution in 1920. He interned at St. Michael's Hospital, Toronto.

He started in general practice and later specialized in ophthalmology for more than thirty-seven years.

Doctor Hendry was a member of the A.F. & A.M. (Toronto) and the Fraternal Order of Eagles.

ARTHUR S. PASTERNACKI, M.D., Adrian physician, died December 22, 1957, at the age of fifty-six. Born in Detroit, Doctor Pasternacki was a 1929 graduate of the Detroit College of Medicine. Starting his practice in Detroit and Wyandotte, he moved to Adrian in 1941.

Doctor Pasternacki served in the U. S. Army Medical Corps in Madison, Wisconsin, before going overseas in 1942 where he participated in the North African and Italian campaigns. He was stationed at Bizerte, Corsica and Sicily.

Discharged in 1945, he returned to Adrian where he was named Civilian Defense Medical Director in 1954.

Doctor Pasternacki was a member of Phi Beta Pi Medical Fraternity and St. Mary's Church of Adrian.

FRANK WILLIAM SCHWARZ, M.D., Battle Creek physician, died December 27, 1957, aged seventy. Doctor Schwarz had been in private practice in Battle Creek in general medicine and psychiatry since 1947, after a long career in Army medical service, with the U. S. Public Health Service and the Veterans Administration.

Doctor Schwarz was born in Philadelphia and received his B.S. degree from the University of Pennsylvania and was a 1917 graduate in medicine from Temple University. He was affiliated with the Veterans of Foreign Wars, the American Psychiatric Association, the Battle Creek Hunt Club and the Gull Lake Country Club.

How Old is Too Old for Tranquilizers ?

The psychological needs of the elderly confront physicians with one of their most perplexing problems. Perhaps no other patient group suffers so much from emotional distress. Yet, precisely because of their age, geriatric patients often seem beyond the reach of tranquilizing treatment.

When tranquilization seems risky . . .

They are too much beset by complicating chronic ailments, too susceptible to serious side effects. Ataraxia is clearly indicated, yet the doctor cannot risk side reactions on liver, blood or nervous system.

Is there an answer to this dilemma?

We feel there is. In four recent papers investigators have reported good results with ATARAX in patients up to 90 years of age.* In one study, **improvement was "pronounced" in 76%, "good" in an additional 18.5%.*** ATARAX has been successfully used in such cases as senile anxiety, agitation, hyperemotivity and persecution complex.* On ATARAX, patients became ". . . quieter and more manageable. They slept better and demonstrated improved relations with other patients and hospital personnel. Even their personal hygiene improved, and they required less supervisory management."*

. . . ATARAX is safe

Yet even in the aged, ATARAX has given "no evidence of toxicity. . . . Complete liver function tests and blood studies were made on all patients after two months of therapy. . . . There were no significant abnormalities."* With still other elderly patients "tolerance to the drug was excellent, even in cases where the patients were given relatively high doses."* Similarly, no parkinsonian effects have been observed on ATARAX therapy.

Nor does ATARAX make your patients want to sleep all day. Instead, they can better take care of themselves, because ATARAX leaves them both calm and alert. In sum, ATARAX ". . . does not impair psychic function and has a minimum of side effects. . . . It appears that ATARAX is a safe drug. . . ."*

These, undoubtedly, are the results you want when emotional problems beset your geriatric patients. For the next four weeks, won't you prescribe tiny ATARAX tablets or pleasant-tasting ATARAX syrup — both so readily acceptable to the elderly.

*Documentation on request

ATARAX®
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ATARAX
in any hyperemotive state

for childhood behavior disorders
10 mg. tablets—3-6 years, one tablet t.i.d.; over 6 years, two tablets t.i.d. Syrup—3-6 years, one tsp. t.i.d.; over 6 years, two tsp. t.i.d.

for adult tension and anxiety
25 mg. tablets—one tablet q.i.d. Syrup—one tbsp. q.i.d.

for severe emotional disturbances
100 mg. tablets—one tablet t.i.d.

for adult psychiatric and emotional emergencies
Parenteral Solution—25-50 mg. (1-2 cc.) intramuscularly, 3-4 times daily, at 4-hour intervals. Dosage for children under 12 not established.

Supplied: Tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

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New York 17, New York
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. NEWS MEDICAL

MICHIGAN AUTHORS

Chandler Smith, M.D., Saginaw, is the author of an editorial entitled, "The Mongoose and the Cobra," published in *Surgery, Gynecology and Obstetrics,* December, 1957.

William S. Carpenter, M.D. and **Paul J. Connolly, M.D.**, Detroit, are the authors of an article entitled "Surgical Management of Chronic Ulcerative Colitis," published in AMA *Archives of Surgery,* January, 1958.

William J. Fulton, M.D., Detroit, is the author of an article entitled "Medical Department Layout and Design," published in *Industrial Medicine and Surgery,* January, 1958.

Wilfred N. Sisk, M.D., **K. Ann Locher, M.T.(ASCP)** and **Eleanor I. Titus, M.T.(ASCP)**, Kalamazoo, are the authors of an article entitled "The Value of Early Diabetes Detection," published in *Industrial Medicine and Surgery,* January, 1958.

Carey P. McCord, M.D. and **Warren A. Cook, M.D.**, Ann Arbor, are the authors of an article entitled "A Classification System for Lantern Slides and Other Visual Aids in Occupational Health," published in *Industrial Medicine and Surgery,* January, 1958.

Edwin J. DeCosta, M.D., is the author of an article entitled "The Thyroid Gland in Obstetrics and Gynecology," published in THE JOURNAL of the Michigan State Medical Society and condensed in the *American Practitioner and Digest of Treatment,* January, 1958.

Harry Lamb, M.D., Sturgis, is the author of an article entitled "About Obesity," published in *GP,* January, 1958.

Morris Dworski, M.P.H., **George E. Wilson, M.D.**, **Homer W. McCreary, M.D.**, Saranac Lake, New York, and **Anthony B. Delahant**, Saranac Lake, New York, and **Gerrit W. Schepers, M.D.**, Ann Arbor, are the authors of an article entitled "Fatal Pulmonary Disease Caused by an Atypical Acid-Fast Bacillus," published in *Industrial Medicine and Surgery,* December, 1957.

Martin F. Bruton, M.D., F.A.C.P., and **Marion W. Jocz, M.D.**, Detroit, are the authors of an article entitled "Myocardial Infarction," published in *Industrial Medicine and Surgery,* December, 1957.

Francis D. Murphy, M.D., is the author of an article entitled "Diagnosis and Treatment of Acute Coronary," published in THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, August, 1957, a quote from which appears in *Current Medical Digest,* November, 1957.

John P. Gallagher, M.D., Washington, D.C., and **Franklin E. McCoy, M.D.**, Mount Pleasant, are the authors of an article entitled "Subdural Empyema" published in *Medical Annals of the District of Columbia,* November, 1957.

J. P. Gray, M.D., Detroit, is the author of an article entitled "The Medical Writer's Part in Keeping the Practicing Physician in Step with Modern Scientific Advances," presented at the fourteenth annual meeting of the American Medical Writers Association in St. Louis, September, 1957, and published in *Mississippi Valley Medical Journal,* January, 1958.

Charles W. Sellers, M.D., Detroit, is the author of an article entitled "The Fallacy of Retirement," selected for presentation in the contest on non-medical writing conducted in connection with the fourteenth annual meeting, American Medical Writers Association, St. Louis, September, 1957, and published in the *Mississippi Valley Medical Journal,* January, 1958.

Leo S. Figiel, M.D., and **Steven J. Figiel, M.D.**, Detroit, are the authors of an article entitled "Ileo-Cecal Intussusception in the Adult," published in the *American Journal of Roentgenology, Radiotherapy and Nuclear Medicine,* October, 1957.

Steven J. Figiel, M.D., and **Leo S. Figiel, M.D.**, Detroit, are the authors of an article entitled "Herpes Zoster with Ileus Simulating Intestinal Obstruction," published in the *American Journal of Medicine,* December, 1957.

Sidney W. Hoobler, M.D., Ann Arbor, is the author of an article entitled "Practical Plan for Long-Term Treatment of Hypertension," read in the Panel and Symposium on the Uses and Abuses of New Drugs and Antibiotics in Therapy before the Section on General Practice at the 106th meeting of the American Medical Association, New York, June, 1957, and published in the *Journal of the American Medical Association,* December 28, 1957.

Richard C. Bates, M.D., **Robert B. Jennings, M.D.**, and **David P. Earle, M.D.**, Lansing, are the authors of an article entitled "Acute Nephritis Unrelated to Group A Hemolytic Streptococcus Infection," published in the *American Journal of Medicine,* October, 1957.

Daniel J. Leithouser, M.D., Detroit, is the author of an article entitled "A Survey on Early Ambulation after Surgery," published in *Surgery, Gynecology and Obstetrics,* January, 1958.

J. P. Gray, M.D., Detroit, is the author of an article entitled "Report of Visiting Lecturer on Medical Writing, American Medical Writers Association, during 1956-1957," presented at the fourteenth annual meeting, American Medical Writers Association, St. Louis, September, 1957, and published in the *Mississippi Valley Medical Journal,* January, 1958.

Ruth Good, Assistant Editor, *University of Michigan Medical Bulletin,* Ann Arbor, is the author of an article

(Continued on Page 446)



when you encounter

- respiratory infections
- gastrointestinal infections
- genitourinary infections
- miscellaneous infections

for all tetracycline-amenable infections, prescribe superior

SUMYCIN

Squibb Tetracycline Phosphate Complex

In your patients, **SUMYCIN** *produces:*

1. Superior initial tetracycline blood levels—faster and higher than ever before—assuring fast transport of adequate tetracycline to the site of the infection.

2. High degree of freedom from annoying or therapy-interrupting side effects.

Supply:	*Tetracycline phosphate complex equiv. to tetracycline HCl (mg.)*	*Packaging:*
Sumycin Capsules (per Capsule)	250	Bottles of 16 and 100
Sumycin Suspension (per 5 cc.)	125	2 oz. bottles
Sumycin Pediatric Drops (per cc.—20 drops)	100	10 cc. dropper bottles

"SUMYCIN" IS A SQUIBB TRADEMARK

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Squibb Quality—the Priceless Ingredient

for modern
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CUMERTILIN®
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Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
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DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100.

1. Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

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4444 Woodward Avenue, Detroit 1, Mich.

(Continued from Page 444)

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Samuel J. Levin, M.D., William Roubeck, M.D., and **David Kliger, M.D.,** are authors of an article entitled "Comparison of the Rate of Absorption of Subcutaneously and Intramuscularly Injected Phenolsulphonphthalein," which appeared in the *Annals of Allergy,* December, 1957.

Kouighi R. Tanaka, M.D., and **George O. Clifford, M.D.,** Detroit, are the authors of an article entitled "Spontaneous Remission in Pernicious Anemia," published in the *New England Journal of Medicine,* January 2, 1958.

Marshall W. Alcorn, M.D., Bay City, is the author of an article entitled "Management of Uremia," published in *Clinical Medicine,* November, 1957.

Leopold Liss, M.D., and **J. Reimer Wolter, M.D.,** Ann Arbor, are the authors of an article entitled "The Histology of the Glioma of the Optic Nerve," published in A.M.A. *Archives of Ophthalmology,* November, 1957.

Michael N. Zelenock, M.D., Robert D. Larsen, M.D., and **Joseph L. Posch, M.D.,** Detroit, are the authors of an article entitled "Treatment of Fractures of the Hand," read at the fourteenth annual meetings of the Central Surgical Association, Chicago, February, 1957, and published in AMA *Archives of Surgery,* September, 1957.

James A. Maher, M.D., Ann Arbor, is the author of an article entitled "A Statistical Study of Lymphoblastoma in the Necropsy Series at the University of Michigan Hospital," published in the *University of Michigan Medical Bulletin,* November, 1957.

W. W. Coon, M.D., J. W. Mackenzie, M.D., and **P. E. Hodgson, M.D., F.A.C.S.,** Ann Arbor, are the authors of an article entitled "A Critical Evaluation of Anticoagulant Therapy in Peripheral Venous Thrombosis and Pulmonary Embolism." published in *Surgery, Gynecology and Obstetrics,* February, 1958.

Philip A. Riley, Jr. Captain, MC, USAR (now of Jackson, Michigan), **Basel M. Mixon, Jr., Major, MC, USA,** and **Timonthy G. Barila, Major, MC, USA,** Washington, D. C., are the authors of an article entitled "Antifibrillary Drugs for Deep Hypothermia in the Dog" published in *Surgery,* St. Louis. November, 1957.

William D. Robinson, M.D., Ann Arbor, is the author of an article entitled "Nutrition and Joint Disease," published in the *Journal of the American Medical Association,* January 18, 1958.

Clayton K. Stroup, M.D., F.A.C.G., and **Donald K. Pine, M.D.,** Flint, are the authors of an article entitled "Pneumoperitoneum after Gastroscopy," published in the *American Journal of Gastroenterology,* January, 1958.

B. K. Bagchi, Ph.D., William D. Robinson, M.D., and **Jere M. Bauer, M.D.,** Ann Arbor, are the authors of an article entitled "Electroencephalographic Changes in a Case of Vitamin D Intoxication," published in the *University of Michigan Medical Bulletin,* December, 1957.

(Continued on Page 448)

Say you saw it in the Journal of the Michigan State Medical Society

in HAY FEVER

Family Physicians use

specific desensitization for *lasting immunity

. . . easily, pleasantly and economically

SPECIFIC DESENSITIZATION . . .

is easily accomplished, quickly and accurately by any physician. Simply scratch test each patient by using activated Barry allergens to determine what offends the patient. Then send a list of these offenders with their reactions to Barry for the preparation of a specific desensitization formula which promotes *lasting active immunity*. For scratch testing your patient, use the Barry Pollen-Pack containing 21 tests of Tree, Grass and Weed pollens including Fungi and House Dust, all botanically correct for your locality. Safe, simple, time-proven technique complete with directions for your nurse.

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is obtained by desensitizing patients for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction of each. Specific desensitization immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For patients that have already been skin tested by any means, send their list of offenders to the Allergy Division. Prompt 7-10 day service for all Rx's.

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Scratch Test Set
with each Rx Specific Desensitization Set prepared according to your patient's own skin test reactions.

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Allergy Division
DETROIT 14, MICHIGAN

BARRY
since 1928

(Continued from Page 446)

E. C. Pierson, Ph.D., M.D., and **S. W. Hoobler, M.D.,** Ann Arbor, are the authors of an article entitled "Significance of Transient Encephalopathy in Cases of Benign Hypertension," published in the *University of Michigan Medical Bulletin,* December, 1957.

Saul I. Harrison, M.D., Ann Arbor, is the author of an article entitled "Modus Operandi of Psychoanalysis," published in the University of Michigan *Medical Bulletin,* December, 1957.

Harry M. Nelson, M.D., Detroit, Past President of the American Cancer Society and current Chairman of the Michigan Cancer Co-ordinating Committee, is the author of "Exfoliative Cytology in the Detection of Uterine Cancer," published in the *Bulletin of the American College of Surgeons,* December, 1957. Dr. Nelson is also author of "Periodic Health Checkups and Cancer" published in *Medical Times,* November, 1957, and "The Present Status of Exfoliative Cytology in the Control of Uterine Cancer," published in the *University of Michigan Medical Bulletin,* November, 1957.

The World Medical Association will hold its twelfth General Assembly in Copenhagen, Denmark, August 15-20, 1958. The United States Committee, now in its tenth year, secured 797 new members in 1957. The U. S. Committee will hold another meeting at the American Medical Association convention in San Francisco in June, 1958.

* * *

The Basic Course for Orthoptic Technicians, sponsored by the American Orthoptic Council, will be moved from its previous location in Iowa City to the University of Michigan at Ann Arbor for the summer session this year. The course will be held from June 23 to August 16, and the students will be housed in the University dormitories, with the lectures being given at the University Hospital under the sponsorship of the Department of Ophthalmology. Anyone interested in writing for further details of the course should address their inquiries to Dr. John W. Henderson, Department of Ophthalmology, University Hospital, Ann Arbor, Michigan.

* * *

Max K. Newman, M.D., Detroit, has presented three talks recently: (1) "The Rehabilitation of the Geriatric Patient," presented at the Veterans Administration Hospital, Fort Wayne, Indiana, December 16, 1957; (2) "Neurological Signs and Symptoms of the Aged," presented at the Jewish Home for the Aged, Detroit, on January 16, 1958, and (3) "Occupational Hazards of Practicing Dentists—The Myofascial Syndromes," presented before the Northern Section of the Detroit District Dental Society, January 21, 1958.

* * *

The American College of Allergists will hold its Fourteenth Congress and Graduate Instructional Course in Allergy on April 20-25, 1958, at the Shelburne in Atlantic City, New Jersey. For further information, write to The American College of Allergists, John D. Gillaspie, M.D., 2049 Broadway, Boulder, Colorado.

TAKE A LOOK AT
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Poliomyelitis.—One year ago, representatives from every state medical society in the country met in Chicago to offer their services to the AMA polio inoculation campaign to protect every person under forty. Vaccine supplies are now plentiful. 41,300,000 cc. were on hand at the latest U. S. Public Health Service count, January 1, 1958.

The polio campaign must be a continuing effort. Thirty-five million inocculation appointment cards are being distributed during the NFIP door-to-door "Mothers' March on Polio." These are post cards which families send to doctors requesting appointments for polio shots. Physicians and their secretaries should be on the lookout for these cards in their daily mail and set up appointments promptly when they are requested. Cards state that "your doctor will tell you what it costs to get vaccinated."

Last year, the number of paralytic polio cases was only 32 per cent of the 1956 total. We can cut the incidence even more sharply next summer by plunging energetically into "Operation Cleanup" this spring. That briefly is the message of Julian P. Price, M.D., Chairman, AMA Committee on Poliomyelitis, January 26, 1958.

* * *

Tribute to TB Workers.—On December 12, 1957, at Lansing, the Michigan Tuberculosis Association honored at a luncheon, Harry D. Bennett, treasurer, and Theodore J. Werle, executive secretary, both having served for thirty-five years and both now retiring. They were cited for their leadership in the Michigan Tuberculosis movement and both were given a memory book and gift. The Michigan State Medical Society headquarters staff members have co-operated with these two men over many years and wish to add their felicitations.

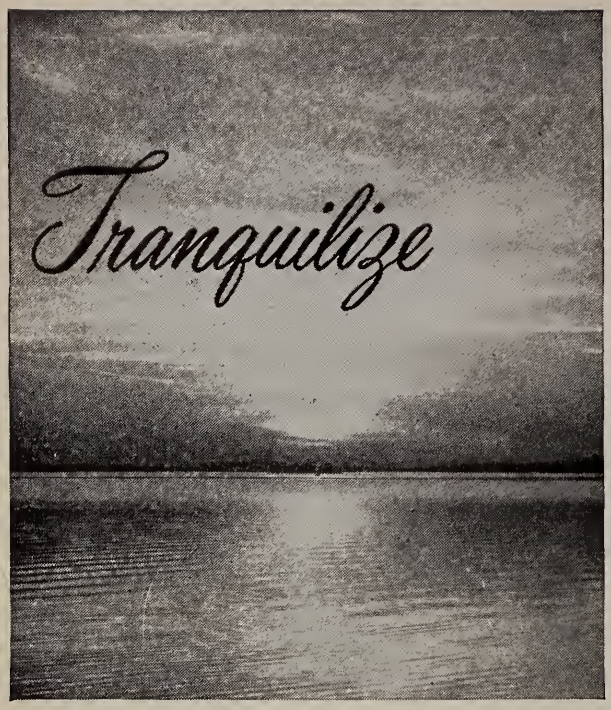
* * *

The Rains Again.—The National Library of Medicine News of February, 1958, again tells the story of rain damage:

"Throughout December the rains in the Washington area were twice the normal amount, and with the rains came water in the basement stacks of the National Library of Medicine. A few shelves of books in the most dangerously threatened area were moved; unfortunately, all cannot be moved. Lacking space, odd alternatives such as coating the books with an anti-mildew mixture of copper sulfate have been considered, especially for those books in the dampest sections of the stacks.

"Early in January the Executive Officer of the National Library of Medicine and the Superintendent of the Mall Group of buildings, Public Buildings Service, made an extensive inspection of the situation; as a result of their survey, several actions will be taken. An attempt will be made to waterproof the interior west wall of the basement stacks, and a concrete splash pan will be constructed on the exterior of the wall to eliminate seepage; all interior downspouts remaining in the building will be capped and replaced with exterior downspouts. The interior west wall of the upper stack area will be replastered and repainted. In addition, some gratings in the main stack will be replaced, and ex-

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terminators will turn their attention from the plague of rats, now somewhat abated, to incursions being made by cockroaches and silverfish."

* * *

Edward W. Schoenheit, M.D., President of the North Carolina State Medical Society, devoted his whole President's page to his trip to Michigan attending our annual meeting in September and receiving at first hand the information available.

He says:

"I desire to plead that we do everything possible to maintain voluntary insurance plans, and I believe that without Blue Shield plans, compulsory health insurance would already have been forced upon us. Many physicians in our state are dissatisfied with our present Blue Shield plan, as evidenced by the fact that less than 50 per cent are willing to participate in it. Many have commented that they would just as soon have socialized medicine as our present Doctor's Plan.

"Most of us agree that we would rather practice under the old order, without insurance, we a fee-for-service arrangement; however, we must face the fact that times have changed and some sacrifice will have to be made. Blue Shield plans offer a co-operative effort to satisfy the public and render satisfactory service, and will insure the maintenance of our doctor-patient relationship."

* * *

The General Practitioner Education Project, jointly sponsored by the American Psychiatric Association and the American Academy of General Practice, is interested in the development of postgraduate psychiatric education for the family physician. One of the services which is offered by the project is a Speakers Bureau, which is prepared to offer names of psychiatrists who are willing to serve as guest lecturers while they are taking their vacation trips. Medical societies, hospitals, and others interested in obtaining names of psychiatric speakers, are requested to write the G. P. Project, American Psychiatric Association, 1785 Massachusetts Avenue, N.W., Washington, D. C.

* * *

The Wisconsin Academy of General Practice is accepting applications for scientific exhibits at the Academy's annual assembly, September 15-16, 1958.

Approximately twenty scientific exhibits will be accepted for the two-day meeting, which will be at the Milwaukee Auditorium. Scientific exhibits will be in Bruce Hall of the Auditorium. About 450 family doctors will attend the assembly.

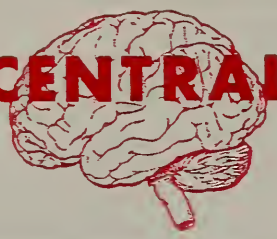
Dr. Charles J. Picard, of Superior, scientific assembly chairman, said the Academy is setting aside more space for scientific exhibits because it realizes the importance in helping family doctors keep up to date with the latest developments in modern medicine. All applications will be screened by Dr. Picard's committee.

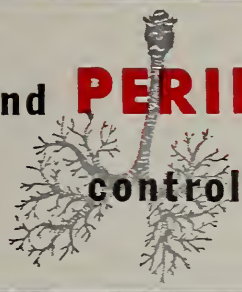
The exhibit spaces are 10 feet by 10 feet, and the Academy will provide back and side drapes, a booth sign, and electric current. Booth space will be provided without cost for those scientific exhibits accepted.

Medical schools, clinics, hospitals or individual physicians desiring further information or wishing to apply may write to Robert A. Dufour, Executive Secretary, Wisconsin Academy of General Practice, 758 N. 27th Street, Milwaukee 8, Wisconsin.

(Continued on Page 452)

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Dihydrocodeinone bitartrate	1.33 mg.
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Ammonium chloride	75.0 mg.
Menthol	1.0 mg.
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* * *

The Third International Congress of Allergy will be held in Paris, France, October 19 to 26, 1958. It is sponsored by the International Association of Allergology and the French Allergy Association. The program will consist of symposia on asthma and emphysema, immunology, recent clinical advances, biochemical aspects, auto-immune reactions, dermatology and socio-economics aspects. Participants are world authorities in special fields. There will be sectional papers limited to ten minutes, on any phase of allergy, also round table small groups luncheon conferences on selected subjects led by international authorities and both pre and post convention tours. An enjoyable social program has also been arranged. For information, write Samuel Feinberg, M.D., 303 East Chicago Avenue, Chicago, Illinois.

* * *

Poison Information Center.—The University of Michigan Department of Medicine announces the establishment of a poison information and therapy center at the University Hospital to be added as a service to the physicians of the state who may need fast information on poisons and antidotes or whose patients, especially children, have become sick from swallowing mysterious substances lying around the house—deodorants, detergents, weed killers, rat poison, insecticides, household drugs and even bubble bath soap, may demand immediate information. The establishment of this center, under the direction of George H. Lowrey, M.D., will be a real service to the people of the State of Michigan, with trained and training physicians and residents on the staff of the University skilled in the treatment and diagnosing of poisoning on call. All available information will be subject to call, even in emergencies when a doctor is not immediately available.

For the poison Information Center, telephone University Hospital, NOrmandy 3-1531. Ask for emergency service poison center. This service could result in the saving of many lives.

* * *

A Public Health Service roundup on poliomyelitis statistics for 1957 shows 5,894 cases of all types compared with 15,419 in 1956 and 29,270 in 1955.

* * *

The University of Michigan School of Public Health received a grant of $136,155 supported by the March of Dimes program to carry on the search for new anti-polio drugs. Dr. Thomas Francis, Jr., will be in charge of the program. According to Dr. Francis, the secondary aim of the project is to advance understanding of what the basic mechanisms of virus infection are. This may in the long run prove even more important than the discovery of drugs effective against poliomyelitis.

(Continued on Page 454)



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Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

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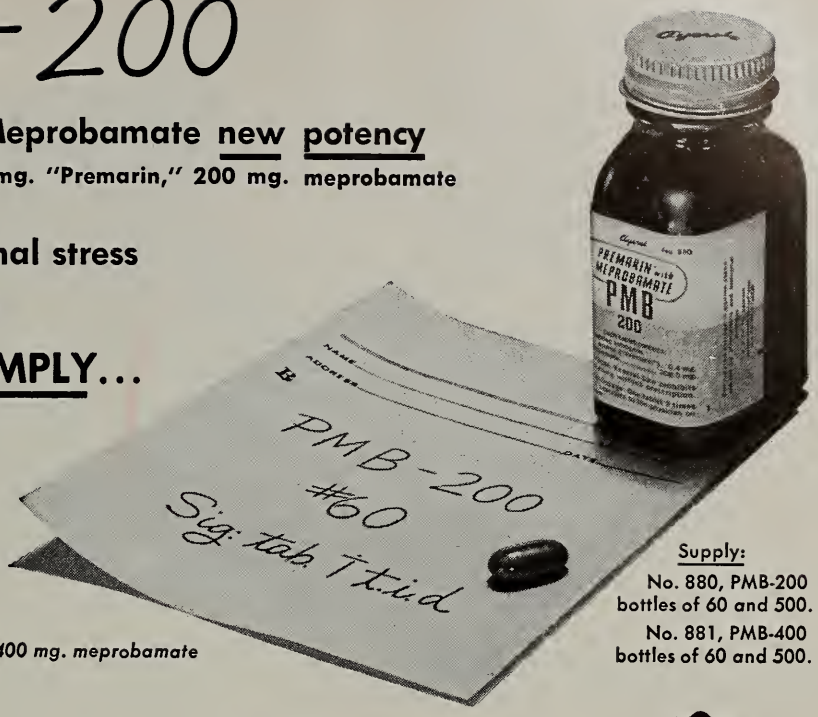
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Fredrick A. Coller, M.D. and William J. Regan, M.D., both of Ann Arbor, became associated as general surgeons on the staff at St. Joseph Mercy Hospital, Ann Arbor, on February 1, 1958.

Doctor Coller retired as Chairman of the Department of Surgery at University of Michigan Medical School last July after holding the post for twenty-seven years. He has been associated with the University since 1920, having joined the staff shortly after military service in World War I. At the present time, he is continuing as Professor of Surgery and as lecturer in the "History of Medicine," as well as consultant to the Medical School faculty. Doctor Coller's plans for the future also include a medical museum for the University and a continuation of research projects in the field of cancer.

A native of South Dakota, Doctor Coller received his M.D. degree from Harvard Medical School in 1912, and served an internship and residency at Massachusetts General Hospital, Boston.

Doctor Regan, an instructor in surgery at the University of Michigan since 1951, graduated from the University of Pennsylvania School of Medicine in 1949. He is a member of Alpha Omega Alpha, Sigma Xi, the Fredrick A. Coller Society and is a Diplomate of the American Board of Surgery.

* * *

The Health Information Foundation has announced the results of a two-year study of a major problem still confronting voluntary health insurance plans. This report, made January 15, 1958, will be published by the Harvard University Press, Cambridge, Massachusetts. The report states that at the start of 1955, almost two-thirds of the U.S. population had some type of health insurance protection. The great majority of insured persons were covered by employe groups.

Thirty-five per cent of the United States population are not eligible for group coverage because of their employment problems. Only one quarter of these non-eligible persons were enrolled in Blue Cross-Blue Shield, or other health insurance plans on a non-group basis.

Non-group enrollment presents problems for those selling voluntary health insurance. First, there is no automatic payroll deduction; second, non-group subscribers often include a high proportion of individuals who have greater-than-average utilization rates for hospital services. Many Blue Cross-Blue Shield plans have worked out ways of encouraging non group enrollment without upsetting their administrative and actuarial structure: (1) community enrollment on a county or smaller basis with a stated percentage of population

(Continued on Page 456)

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* 1. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.
2. Bleiberg, J.: J. M. Soc. New Jersey *53*:37, 1956.
3. Abrams, B. P, and Shaw, C.: Clin. Med. *3*:839, 1956.
4. Welsh, A. L., and Ede, M.: Ohio State M. J. *50*:837, 1954.
5. Bleiberg, J.: Am. Practitioner *8*:1404, 1957.

(Continued from Page 454)

required; (2) community enrollment on a county basis with no stated percentage of the population required; (3) continuous year-round or "over-the-counter" enrollment on an individual sales basis; (4) periodic "open" enrollment on a plan-wide basis or less than plan-wide but larger than county-wide; (5) group enrollment of non-employe groups such as farmers, fraternal and professional organizations, and others.

The problem still remains: too small a percentage of these people are being enrolled.

* * *

Alfred Blalock, M.D., will present the William J. Mayo Lecture at the University of Michigan on March 26, 1958, at 8:30 P.M. in the Horace H. Rackham School of Graduate Studies.

Dr. Alfred Blalock, professor of surgery at the Johns Hopkins University and surgeon-in-chief at the Johns Hopkins Hospital, is noted for his operation on "blue babies." At the University of Michigan, he will give a lecture on "Surgery of the Heart and Great Vessels."

The William J. Mayo lectureship series is sponsored by the University of Michigan department of surgery and was endowed in 1924.

* * *

The Genesee County Medical Society will hold its Tenth Annual Cancer Day, Wednesday, April 9, 1958, at Hurlay Hospital, Flint, at 9:00 a.m. Speakers include Benjamin Felson, M.D., Cincinnati; Edgar L. Frazell, M.D., New York City; Eugene M. Bricker, M.D.; St. Louis, Mo.; Robert C. Horn, M.D., Detroit; Alfred Gellhorn, M.D., New York City; and I. S. Ravdin, M.D., Philadelphia.

* * *

The Women's Auxiliary of the Michigan State Medical Society issued Volume I, No. I of *The Auxilium* in December, 1957. This takes the place of the former *Auxiliary News,* which was published sporadically over several years. The first number contains four pages, attractively done on heavy white paper, and folds to letter size. It is a well printed, very readable, newsy bulletin, and contains a listing with the addresses of the advisory committee, the officers, and the various committee chairmen. Warren F. Tryloff, Associate Public Relations Counsel, is assisting in this work.

* * *

The Health Information Foundation will conduct a nation-wide survey of medical costs and voluntary health insurance during 1958. The survey will be conducted and sponsored jointly by HIF (Health Information Foundation) and the National Opinion Research Center of the University of Chicago will represent a re-survey, paralleling that which the Foundation conducted in 1953. The new study will provide a basis for comparing data on medical expenditures, utilization of medical services and patterns of health insurance coverage in 1953 and the present.

* * *

The Social Security Administration will study a group of 3,000 newly retired persons over a twelve-year period

(Continued on Page 458)



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Rutin	10 mg.	Niacinamide	20 mg.
Ascorbic Acid	30 mg.	Manganese	1 mg.
B-12	1 mcg.	Magnesium	5 mg.
Molybdenum	0.5 mg.	Iodine	0.15 mg.
Cobalt	0.1 mg.	Potassium	2 mg
Copper	0.2 mg.	Zinc	1 mg.
Vitamin A	5,000 I.U.	Choline Bitartrate	40 mg.
Vitamin D	400 I.U.	Methionine	20 mg.
Vitamin E	1 I.U.	Inositol	20 mg.
Cal. Pantothenate	3 mg.		

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*REFERENCE: J.A.M.A. 163: 359, 1957 (February 2)

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(Continued from Page 456)

beginning early this year. The purpose of the study is to determine facts on the income, saving, housing, health, employment, major expenditures and various activities of retired persons. Interviews will be conducted at intervals of from one to two years, beginning with the year in which the persons interviewed apply for social security benefits. How retired persons pay for health care and the nature of their expenditures for such care is identified as a major question in this study.—*Blue Shield Newsletter,* Volume 3, Number 1.

* * *

Standing Orders for Nurses in a Mass Disaster.—In the December JOURNAL (pages 1508, 1510 and 1519), was published a set of rules and standing orders which have been agreed upon for the use of nurses in mass disasters. These come from the medical and public health division of Civil Defense and were endorsed by the Michigan State Medical Society Committee on Civil Defense and by The Council.

In a letter to the editor, Dr. Carleton Fox, a maxillofacial surgeon, who has been a member of the Board of Directors of Michigan Medical Service for over ten years, called attention to one very important first aid precaution which has been overlooked.

"In World War I, as well as in the last two wars, many of the casualties were of the face, and especially of the lower face, involving the mandible and tongue. Many of these men died for lack of an adequate air way, due to improper first aid and transportation. Item B of instruction VIII is correct, but an all-important order has been neglected, namely: All patients with macerations of the lower face, including the tongue, should not be transported on their backs, with the head to one side, but rather face down or in a sitting position with the head bent forward."

It is suggested that this note be added to the information published.

* * *

American Board of Obstetrics and Gynecology.—The next scheduled examinations (Part II), oral and clinical for all candidates eligible, will be conducted at the Edgewater Beach Hotel, Chicago, Ill., by the entire Board from May 7 through 17, 1958. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I Examinations will be notified of their eligibility for the Part II Examinations at the earliest possible date.

Current Bulletins of this Board may be obtained by writing to: Robert L. Faulkner, M.D., Secretary-Treasurer, American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

Gifts and grants to Wayne State University reached a new high during the fiscal year 1956-57, according to totals released recently by Olin E. Thomas, University vice president and treasurer.

More than $3,100,000 was received by the University during the year, exceeding last year's total of more than $2,500,000 by 25 per cent.

The annual report also showed that the number of contributors rose to 407, more than doubling over the past two years.

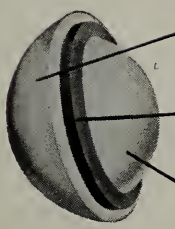
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NITROGLYCERIN—
0.4 mg. (1/150 grain)—acts quickly

CITRUS "FLAVOR-TIMER"—
signals patient when to swallow

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15 mg. (1/4 grain)—prolongs action

For continuing prophylaxis patient swallows the entire Dilcoron tablet.
Average prophylactic dose:
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Therapeutic dose:
1 tablet held under the tongue until citrus flavor disappears, then swallowed.

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Grants for instruction and research totalled approximately $2,387,000 of which $901,000 was in government contracts.

Capital gifts exceeded $586,000. Gifts for scholarships, fellowships, loan funds and wards came to more than $196,000, an increase of 50 per cent over a year ago.

An additional $44,000 for research, instruction and student aid was received from the Wayne University Foundation.

* * *

Wayne State University has started a unique pilot program that will result in more student housing on campus.

An apartment house, the Glenn Manor at 645 Merrick, is being redecorated for use by College of Nursing students. The Glen Manor, recently acquired by the University for $134,000, is within walking distance of all points on campus.

The University plans to assign three to five women to an apartment, with a maximum of eighty-six students in the building.

* * *

Medical Officers Released.—Due to the reduction in the Army's strength this fiscal year, a certain number of Army medical and dental officers scheduled to complete their two-year service agreements between February 1 and August 31, 1958, may be able to return to civilian status after twenty-one months of active duty, Major General Silas B. Hays, Surgeon General of the Army, announced.

Since this is a voluntary program the exact number to be affected by this ruling will not be known until reports have been received in Washington from the field. Notification by Department of Army Message 304795, 15 January, 1958, of the provision for earlier release has been sent to medical installations around the globe where officers, under voluntary or involuntary agreement, are stationed.

Written requests for this earlier release must be filed by the medical or dental officer with his local commander by February 10, 1958. Applications will be approved only where release of the officer will not interfere with carrying out the mission of the Army Medical Service.

General Hays emphasized that this is a one-time voluntary program and is to apply only to those medical and dental officers whose actual separations could be effected by June 30, 1958.

* * *

MSMS Public Relations Counsel Hugh W. Brenneman was guest speaker at the annual banquet of the Michigan Practical Nurses Association regional meeting in Lansing, January 20. Mr. Brenneman's topic was, "It's All in How You Look at It."

* * *

"Revolutions in Medicine" is the title of an address, now in beautiful brochure form, presented by C. Howard Ross, M.D. of Ann Arbor, before the Washtenaw Historical Society November 13. The manuscript is on file with the Michigan Historical Collection and is an excellent example of interesting reading in the field

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of medical history, both ancient and modern. The worthy opus is dedicated, among others, to Frederick A. Coller, M.D., and the late Reuben Peterson, M.D.

* * *

Basic Science Examinations.—The report of examinations in the basic sciences, for the year 1957, indicate that 575 applicants were examined, that 434 were certified and 141 failed.

* * *

The Fourth Annual Nutrition Conference will be held at the Wayne State University College of Medicine, April 24 and 25, 1958.

"Proteins in Nutrition"

Thursday Evening, April 24—Lafayette Clinic Auditorium

8:00 p.m.—"Biochemical Aspects of Meat Preservation"
F. E. Deatherage, Ph.D., Chairman of the Department of Agricultural Biochemistry, Ohio State University.

Friday, April 25—College of Medicine Auditorium

11:00 a.m.—"Protein Deficiency, Kwashiorkor, in Man"
N. S. Scrimshaw, Ph.D., M.D., Director of the Instituto de Nutricion de Centro America, Guatemala.

2:00 p.m.—"Factors Influencing Amino Acid Utilization"
E. E. Rice, Ph.D., in charge of Nutrition Research, Swift and Company.

3:00 p.m.—"Amino Acid Balance in Nutrition"
C. A. Elvehjem, Ph.D., Chairman of the Department of Physiological Chemistry and Dean of the Graduate School, University of Wisconsin.

Members of the Michigan State Medical Society are cordially invited.

* * *

The Lawrence Reynolds Library of the University of Alabama was dedicated on February 2 in Birmingham. The library is named for Lawrence Reynolds, M.D., of Detroit, Clinical Professor of Roentgenology at the University of Michigan, and a native of Alabama. Congratulations, Doctor Reynolds!

* * *

The 90th Clinic Day and Alumni Reunion of Wayne State University's College of Medicine will be held Wednesday, May 7, at the Hotel Fort Shelby in Detroit. Registration begins at 8:00 a.m.

Leonard A. Scheele, M.D., Wayne Medical School alumnus and former Surgeon General of the United States, will speak at the morning session on "State of the Nation's Health and National Health Problems."

A Surgical Symposium on "Biliary Tract Disease" and a Medical Writing Workshop will also be morning session features.

John S. DeTar, M.D. of Milan, Michigan, will lead off the afternoon program with a talk on "Cancer Detection in the Office of the Generalist." Carl A. Moyer, M.D., of St. Louis, Missouri, will speak on the "Acute Interstitial Pancreatitis—Fact or Fiction." A panel discussion on "Care of the Diabetic Pregnant Patient" will close the scientific program.

A reception is planned for 6:15 p.m. followed by a banquet at 7:00 p.m.

Individual class reunions are being arranged for Tuesday evening, May 6, according to Homer Strong, director of Alumni Relations.

* * *

Thomas Francis, Jr., M.D., Ann Arbor, assumed the Presidency of the U. S. Armed Forces Epidemiological Board on January 1.

* * *

Russell N. DeJong, M.D., Ann Arbor, is the current President of the American Board of Neurology and Psychiatry.

* * *

John M. Sheldon, M.D., Ann Arbor, recently was elected National President of Phi Rho Sigma Medical Fraternity.

* * *

The Michigan Health Council presented its Public Health Award to Marjorie Delavan, of Lansing, who retired as Chief of the Health Education Section of the Michigan Department of Health in 1957 after nearly forty years of service. In addition, the MHC recognized the *Detroit Times* and the *Lansing State Journal* for public service in printing the MSMS Survey of Consumer Opinion on Medical Care Protection questionnaire.

The annual Andrew S. Brunk Award went to the Marshall Health Council for the most outstanding community health program during 1957.

At the 1957 Pan Pacific Surgical Association Congress in Honolulu, the following Michigan M.D.'s were guest speakers: Kenneth B. Babcock, M.D., Detroit; W. O. Badgley, M.D., Lansing; R. C. Buerki, M.D., Detroit; F. A. Coller, M.D., Ann Arbor; W. S. Davies, M.D., Detroit; L. S. Fallis, M.D., Detroit; E. S. Gurdjian, M.D., Detroit; J. P. Pratt, M.D., Detroit; and C. S. Stevenson, M.D., Detroit.

* * *

Michigan Heart Association: R. E. Fisher, M.D., of Battle Creek is Secretary of the Association. J. G. Bielawski, M.D., Detroit, is Medical Director. Executive Headquarters of the MHA are located at 3919 John R. Street, Detroit.

* * *

Michigan Health Council television productions over WJBK-TV, Detroit: January 5—Farm Petroleum Safety—(Film); January 12—Eleventh Annual Michigan Rural Health Conference. Guests: J. K. Altland, M.D., Dan E. Reed and John A. Doherty, all of Lansing; January 19—M. D. Placement—(Film—"A Citizen Participates"); January 26—Vision—(Films—"Eyes for Tomorrow" and "Light Is What You Make It").

* * *

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Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

BIOGRAPHY OF A FOUNDATION. By William C. Richards and William J. Norton. The story of the Children's Fund of Michigan 1929-1954, a terminal philanthropic foundation created by the late U. S. Senator from Michigan, James Couzens, with gifts of $11,880,700. Detroit Children's Fund of Michigan, 1957.

This is a most interesting report. James Couzens, formerly vice president of the Ford Motor Company, who sold his interest back to Henry Ford, became mayor of Detroit, and later, United States Senator from Michigan. On May 1, 1929, he created a philanthropic fund or trust, with the donation of $10 million, its main interest to be the welfare of children, research and looking after their health, and he set up a twenty-five-year limit of the fund on the belief that at the end of twenty-five years conditions should be improved or different, or that some other program should be devised. He had another $1,800,000 to the trust and he appointed William J. Norton, of Detroit, as Executive Director and Executive Vice President. Under the terms of the trust, the earnings of the trust were to be used in children's welfare as well as the exhaustion of the whole fund which amounted in its final analysis to approximately $18 and a quarter million. This book is the history of the foundation, its establishment, its management and the tremendous work it did in various parts of the state including various children's clinics. The editor of this biography, William C. Richards, died before the completion of the work, and William J. Norton completed it. Our doctors in Michigan will many of them remember Mr. Norton as for several years the treasurer of Michigan Medical Service in its earlier years, and as a member of its Board of Directors for quite a period of time. The Foundation was officially closed, May 1, 1954. Preparing the biography, especially with the handicap of the death of the biographer, has delayed this publication, however, we think it is well worth our while and are happy with it.

CIBA FOUNDATION COLLOQUIA ON ENDOCRINOLOGY. Volume II. Hormones in Blood. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Elaine C. P. Millar, A.H.-W.C., A.R.I.C. 74 illustrations. Boston: Little, Brown and Company, 1957. Price $9.00.

The eleventh volume of these admirable colloquia has the suggested subtheme of "back to blood" indicated that in the minds of many, and rightly so, the proper area for study of the hormones is the blood. In this medium, the hormones are circulating and from this medium regulate the bodies economy. In rather detailed critical papers and discussion, the methods of the determining of the blood levels of the hormones and the alterations of the levels in health and disease are considered.

The hypophyseal, thyroid, adrenal, placental and ovarian hormones are well considered, the pancreatic hormone to a less degree. The papers are presented by established investigators known in their respective fields and the material is well and thoughtfully covered. Inclusion of specific discussion of each paper and of general discussion of the topic gives the material a spontaneity which increases the interest and educational value to the reader.

It is a volume which should serve to provide the interested physician with a critical insight into many of the problems which present themselves to the investigator in the field of endocrine research and the assay of the hormones.

J. Frederic Johnson, M.D.

MANNUAL OF NUTRITION. New York: Philosophical Library, 1957. Price, $3.50.

This little book contains an immense amount of information regarding all types of nutrition problems condensed in very quickly referrable form including some tables of values and hints on the feeding of children of school age, feeding of the bed ridden, how to determine whether a diet is really nutritiously good and many other topics. A very handy volume for quick reference.

(Turn to Page 464)

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PSYCHOPATHIC PERSONALITIES. By Harold Palmer, M.D. New York: Philosophical Library, 1957. Price, $4.75.

This book is a careful analysis and study of numerous psychopathic personalities including schizophrenia, the depressive state, the obsessions, hysteria, epilepsy, tension syndromes, paranoid conditions and mania. Each is clearly discussed and well presented, but we believe could have been improved by making a few more pages and putting a little more space between the lines so that they would be easier to read. Philosophical and psychological material we believe is more attractive reading when there isn't quite the stress of following lines a little too close together. That is just a personal reflection on the printing but does not detract from the value of the book.

THE CHRONICALLY ILL. By John Fox, Ph.D. New York: 229 pages. Philosophical Library, Inc., 1957. Price, $3.95.

This well-written and interesting book is in good and easily readable type and discusses chronic sickness from many different angles, including what are the chronic illnesses, listing them and describing them. It contains chapters on self-help, invalidism, the crises individuals meet when they have to admit chronic illness, long-term care and its problems, the rehabilitation and taking up of life again. Age has its influence on chronic illness and also there is a very remarkable sociological aspect including the economic problems. Medical and institutional planning for the prolonged illness are again discussed from the results of studies at Montefiore Hospital which have been the subjects of previous books. It is a very very well-done booklet.

TEXTBOOK OF GYNECOLOGY. By John I. Brewer, B.S., M.D., Ph.D. Professor of Obstetrics and Gynecology, Northwestern University Medical School. Chief of Gynecology and Obstetrics, Passavant Memorial Hospital, Chicago. Second Edition. Baltimore: The Williams and Wilkins Company, 1958. Price, $15.00.

This new edition of a Textbook of Gynecology has added new material as well as a change in sequence of presentation. The book is divided into two parts. Part One deals with the symptoms and findings during the three major stages of a woman's life. Part Two deals with the various major entities. At the beginning of each chapter, there is a brief outline of the subject content. The primary purpose of the book is to teach gynecology from the clinical standpoint and not from a didactic one. The chapters on carcinoma of the cervix have been brought up to date, including the newer concepts of treatment. The chapter on endocrinology is in considerable detail and is of great assistance to one interested in the new fields of gynecology. Following each chapter, there is a complete reference list to the subject matter. The main value of the book is the correlation of the subject matter in such a way as to cause the reader to think and project. From this standpoint, it is of value not only to the student but to the general practitioner, as well as the specialist in gynecology. This book should be included in everyone's reference library.

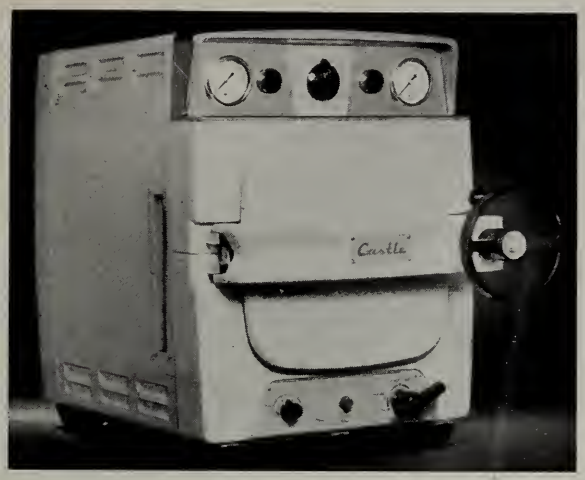
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GENESEE COUNTY CANCER DAY

The Genesee County Medical Society will hold its thirteenth Annual Cancer Day Wednesday, April 9, 1958. Papers will be presented as follows:

Morning Session: "The Use of Angiography in the Diagnosis of Malignancy"—*Benjamin Felson, M.D.*, Professor and Director, Department of Radiology, University of Cincinnati; "Radical Pelvic Surgery for Lower Abdominal Cancer"—*Eugene M. Bricker, M.D.*, Associate Professor of Clinical Surgery, Washington University, School of Medicine, St. Louis, Missouri; "Cancer of the Head and Neck"—*Edgar L. Frazell, M.D.*, Attending Surgeon and Chief, Head and Neck Service, Memorial Hospital, New York.

Afternoon Session: "The Pathology of Gastrointestinal Cancer"—*Robert C. Horn, Jr., M.D.*, Pathologist-in-Chief and Director of Laboratories, Henry Ford Hospital, Detroit, Michigan; "Primary Cancer of the Lymph Nodes"—*Alfred Gellhorn, M.D.*, Associate Professor of Medicine, College of Physicians, Columbia University and Director, Medical Service, Francis Delafield Hospital, N. Y.; "Gastric Ulcer and Gastric Cancer"—*I. S. Ravdin, M.D.*, John Rhea Barton Professor of Surgery, School of Medicine, University of Pennsylvania; Surgeon-in-Chief, Hospital of the University of Pennsylvania.

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Contributors to This Issue



MAX CUTLER, M.D.



H. D. DYKHUIZEN, M.D.



L. H. GARLAND, M.B.



LEON GOLDMAN, M.D.



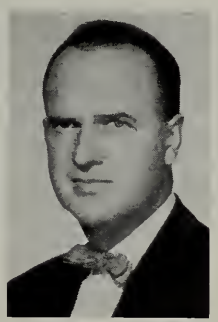
H. M. NELSON, M.D.



C. H. ROSS, M.D.



ISIDORE SELZER, M.D.



J. W. STRAYER, M.D.



M. W. WHITE, M.D.



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Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
L. FERNALD FOSTER, M.D.
441 E. Jefferson, Detroit, Michigan

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All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota. or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 5-7125.

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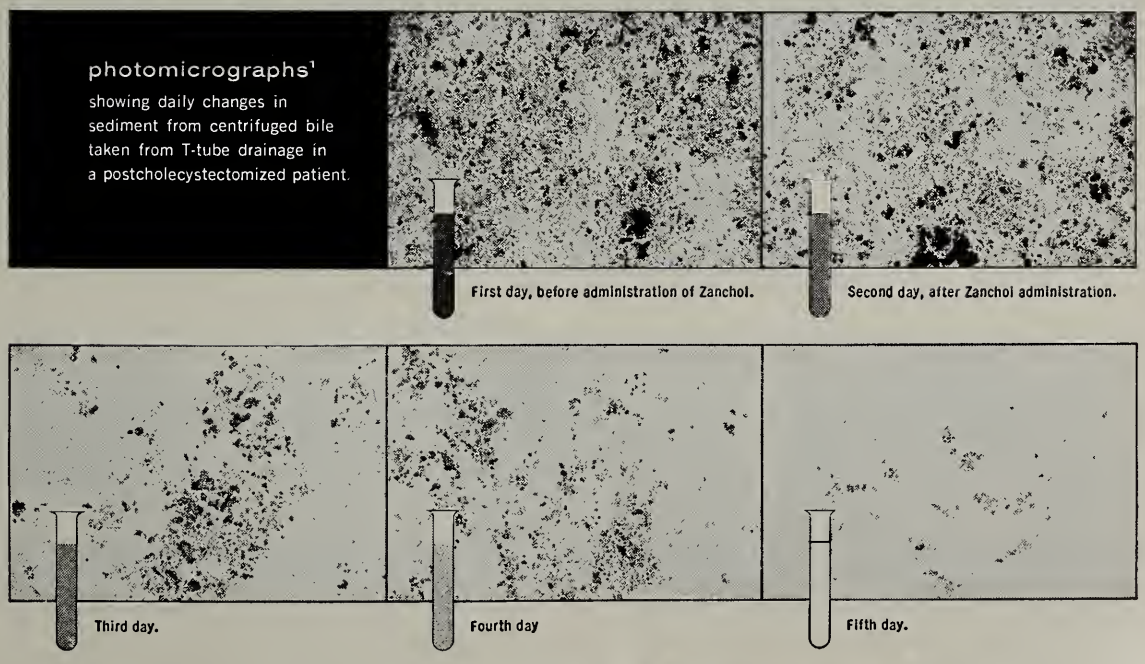
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1. McGowan, J. M.: Clinical Significance of Changes in Common Duct Bile Resulting from a New Synthetic Choleretic, Surg., Gynec. & Obst. *103*:163 (Aug.) 1956.

SEARLE

Editorial Comment

BLUE CROSS HIRES 40-TON "BRAIN"

Michigan Blue Cross-Blue Shield recently put into operation a giant electronic "brain" to handle records involving their more than 3½ million members.

Officials of Datamatic Division of Minneapolis-Honeywell Regulator Company, manufacturer of the device, said it is the first of its size designed primarily for business use.

The 'brain," called Datamatic 1000, is valued at more than 1½ million dollars. The hospital-medical-care agencies are leasing it at $37,000 a month.

Weighing 40 tons, Datamatic 1000 occupies three large rooms on the sixth floor of the Blue Cross-Blue Shield building at 441 E. Jefferson. It takes up a total of 5,000 square feet of space.

William S. McNary, executive vice president of Blue Cross, said the primary purpose in using the "brain" is to give better service to subscribers.

"It will provide faster and more accurate accounting and give absolutely standard application of policies," he said.

Jay C. Ketchum, Blue Shield executive vice president, added that it will produce valuable "by-products" in the form of statistical information virtually impossible for individuals to compile.

McNary was unable to estimate how many employes Datamatic 1000 will replace, but he said no worker will lose his job because of it.

It will take two years to transfer the entire work load to the machine, and in that time normal attrition will decrease the number of employes, he said.

Datamatic Division, located in Newton Highlands, Massachusetts, a suburb of Boston, is turning out several more of the machines for other agencies and companies, including the Treasury Department.

Three of these, First National Bank of Boston, County of Los Angeles and the Baltimore & Ohio Railroad, will use Blue Cross-Blue Shield's "brain" in the evenings while waiting for their own to be installed.

The Datamatic system will reduce all Blue Cross-Blue Shield records to 20 reels of magnetic tape, each three inches wide and 2,700 feet long.

It will take just two hours to handle the daily average of 25,000 alterations or additions to these records.

The remaining six hours in the work day will be devoted to billing operations and compilation of statistics.

A high-speed printer translates the coded information into words and numbers at the rate of 900 lines a minute.

The designers say only human error in "feeding" the machine can affect its accuracy.

Continual proper function is guarded by a self-checking unit which locates any section of the machine that is starting to go bad. The Datamatic engineers on duty then can replace or repair it before harm is done.

Installation of the big "brain" took more than a year.—Geoffrey Howes in *Detroit Free Press,* February 19, 1958.

AILING HEALTH PLAN

Britain's womb-to-tomb National Health Service is in the red again. Last week Chancellor of the Exchequer Derick Heathcoat-Amory gave Commons the bad news: individual contributions will be upped, on July 1 as much as 37 per cent.

Before the N.H.S. was launched in 1948, optimists estimated that it would cost $490 million a year; of this, $355 million would come from general tax funds, the balance from individual contributions of up to about 20 cents a week. But the estimates proved woefully low.

Total costs have rocketed to an estimated $2 billion for the next fiscal year. To raise even one-fifth of this whopping bill (four-fifths will still come from taxes), the Chancellor set these new weekly rates: for employed men, 7 cents more, for a total of 26 cents; employed women, 5 cents more, total 19 cents; employed juveniles (under eighteen), two cents more, total 12 cents. In addition, employers' fees will go up from 4 cents per worker to 6 cents. For children not yet employed, the rate goes up 2 cents to a total of 16 cents.

The Socialists promptly blasted the government for laying the added burden on the whole population, meaning that most of it would be borne by the well. Deliberately so, said Heathcoat-Amory: the government believed this was fairer than putting a still heavier burden on the sick, who are least able to bear it.—*Time,* March 3, 1958.

Eighty per cent of persons having Stage I cervical cancer will be free of disease five years after adequate treatment, compared to but 20 to 30 per cent of Stage III cases.

* * *

Any woman over the age of twenty, who has irregular vaginal bleeding, deserves a careful pelvic examination.



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AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next scheduled examinations (Part II), oral and clinical for all candidates eligible, will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from May 7 through 17, 1958. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I Examinations will be notified of their eligibility for the Part II Examinations at the earliest possible date.

Current Bulletins of this Board may be obtained by writing to: Robert L. Faulkner, M.D., Secretary-Treasurer, American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6, Ohio.

REVISED REGULATIONS FOR RA COMMISSIONS

Liberalization of the restrictions on the granting of Regular Army commissions in the Medical Service Corps to highly qualified professional candidates has been announced by the Army Medical Service.

This step has been taken to strengthen the Regular Army component of the Medical Service Corps. Under the revised Army regulations 601-100 and 601-124, applicants for commissions to the Medical Service Corps, Regular Army, will no longer be required to serve a period of active duty before being appointed.

It will now be possible to appoint into the Army Medical Service Corps selected college graduates in almost all the professional and technical fields who hold master's degrees or doctorates or baccalaureate degrees with three years of experience, reserve officers now on duty with the Corps, and outstanding enlisted personnel or warrant officers.

Officers whose previous applications were rejected may reapply at any time they meet the qualifications shown in these Army regulations.

Another liberalization of restrictions is the modification of the age requirements, accomplished by substracting all periods of active commissioned service since December 6, 1941, from the current age of the applicant to determine whether or not the age limit of thirty years is exceeded. Only applicants who can complete twenty years' active commissioned service by age fifty-five years, are eligible to apply.

More than fifty different occupational specialties are represented in the Medical Service Corps which provides the Army Medical Service with qualified personnel to accomplish the scientific and technical skills necessary to meet the demands of modern medicine.

Officers thoroughly experienced or schooled in such techniques as hospital management, personnel administration, the procurement and distribution of all items necessary to the Army Medical Service and to the pharmacological arts, make up the AMS roster.

MICHIGAN MATERNAL TISSUE REGISTRY

The Michigan Maternal Tissue Registry was established at the University of Michigan Medical Center Department of Pathology by the Maternal Health Committee, Michigan State Medical Society, in 1957. The Registry is sponsored by the Maternal Health Committee, the Michigan State Medical Society, the Michigan Pathological Society, the Michigan Society of Obstetricians and Gynecologists, and the Department of Pathology at the University of Michigan Medical Center.

The purpose of the Registry is as stated by the subcommittee of the Maternal Health Committee including members of the sponsoring groups:

1. To collect, diagnose and study tissues submitted from recently pregnant women such as uterus, tumors, unusual placentas, etc., or tissues from maternal deaths in Michigan upon whom necropsies have been performed.

2. To analyze and correlate the verified pathologic diagnoses with the clinical data so that the maternal deaths can be more accurately evaluated.

3. To supply pathologic material to qualified residents and physicians for professional education.

4. To stimulate interest in securing more necropsies in cases of maternal death.

5. To report regularly to the Maternal Health Committee.

A suite of rooms in the Pathology Unit of the new Medical Science Building provides ample area for study of the material. Ten pathologists, Board certified or qualified, are available to review the material.

The members of the Michigan Society of Obstetricians and Gynecologists and the Michigan Pathological Society are requested to submit all available clinical, laboratory, and necropsy records and tissues in cases of maternal deaths for the use by physicians of the sponsoring groups and others

(Continued on Page 478)



Provides therapeutic quantities of all known hematinic factors

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MICHIGAN MATERNAL TISSUE REGISTRY

(Continued from Page 476)

interested. All such material from the necropsy series at the University of Michigan Medical Center is being included in this study.

Further details about the Registry may be obtained from the Chairman of the Department of Pathology, University of Michigan Medical Center, Ann Arbor.

Subcommittee on the Michigan Maternal Tissue Registry, Maternal Health Committee, MSMS

MICHIGAN CANCER CO-ORDINATING COMMITTEE UNIFIES PROGRESS

A voluntary co-operating effort of representatives of six state agencies, interested in Cancer Control, was formed November 12, 1953. and called the Michigan Cancer Co-ordinating Committee.

The six interested agencies are: American Cancer Society, Michigan Division, Inc.; American Cancer Society, Southeastern Michigan Division: Michigan Department of Health; Michigan Health Officers Association; Michigan State Dental Association; and Michigan State Medical Society.

In less than five years, the Cancer Co-ordinating Committee has justified its existence by encouraging more cancer education, especially among professional groups. It urges each of its component members to further the endeavors of that group in a co-ordinated non-overlapping program, in line with the MCCC purpose to help develop and maintain a more efficient and effective, complete dynamic cancer control program in Michigan.

The Michigan Cancer Co-ordinating Committee is, in effect, a "stimulator" of activity on the part of the formalized groups which compose it. It activates its member organizations to greater efforts, without duplication, in the fight against cancer.

Two Popular Publications

The publications of the Michigan Cancer Co-ordinating Committee for the public include (a) "The Story of Cancer for High Schools." and (b) "Strength Through Unity Against Cancer." Close to 50,000 of these two publications have been distributed throughout Michigan, as well as the rest of the United States, Hawaii and Alaska during the past five years.

The personnel of the Michigan Cancer Co-ordinating Committee for 1958 is listed on Page 484 of this issue.

For further information and copies of the publications of the Michigan Cancer Co-ordinating Committee, write the Chairman, H. M. Nelson. M.D., Box 539, Lansing.

MEDICAL INSURANCE

The sweeping new plans for Michigan Blue Shield, as announced this week by the state medical society, will repair some of the weaknesses of the present plan.

New income limits, addition of new services which people often need, and breaking down the present dividing line which covers work in hospitals but doesn't cover the same work outside a hospital are some of the principal changes.

Inclusion of a "co-insurance" factor — for outside-the-hospital care, subscribers will be required to pay 10 per cent, or $5 whichever is greater—is a new aspect. It is a sort of "deductible" plan in a way. Financially the subscriber absorbs a little of the risk, and Blue Shield absorbs a lot of it.

Even the UAW, which has vigorously opposed deductible policies, finds this one to be much more satisfactory—or less unsatisfactory—from their viewpoint. Perhaps the doctors, so often accused of being stiff-necked, thus have given example of how to start a ball rolling. Let's see whether the rest of us can meet them half way.

Remember—for the doctors are remembering—their purpose in life is to be doctors. The only reason they started Blue Shield was because nobody else had invented it, and at the time the public was clamoring for some such thing.

The alternative was government medicine.

We should keep in mind the new proposals, which will take time to work out, don't signify something for nothing. We'll get more. We'll pay more.

It will behoove us also to find out just what our new Blue Shield will do for us, and what it won't.

Better provide ourselves with the facts, rather than get mad later because we don't get something we sort of dreamed we were getting.

But it looks to us like welcome improvement. It will not—and this is important—"pay for everything." It will cover from 90 to 100 per cent of the cost of the larger medical expenses for the average family. It will not cover all the $5 and $10 items which crop up.

Michigan's doctors have come up with magnificent progress, stepping out ahead of any similar group in any other state. It is no empty phrase to say we have generous cause to be proud of them.—*Detroit Times*, September 29, 1957.

AMEF CHAIRMAN STATES CASE FOR PHYSICIAN SUPPORT

Every physician earning his livelihood due to the possession of a medical degree, owes an incalculable and never ending debt to his medical school. Increased costs of operation of our 85

(Continued on Page 480)

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STOPS MORNING SICKNESS...BUT





...IT DOESN'T STOP THE PATIENT

BONADOXIN brings relief to 88.1% of patients...often within a few hours.[1,2] But it does not produce drowsiness, or side effects associated with over-potent antinauseants. With safe BONADOXIN, "toxicity and intolerance...[is] zero."[2]

Is she blue at breakfast? Prescribe BONADOXIN. Usually just one tablet at bedtime stops nausea and vomiting of pregnancy...

and just one supplies the full 50 mg. of pyridoxine. ⇐

EACH TABLET CONTAINS:

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Bottles of 25 and 100.

References: 1. Groskloss, H. H., et al: Clin. Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957.

...and for a nutritional buildup plus freedom from leg cramps*

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phosphate-free calcium, 10 essential vitamins, 8 important minerals. Bottles of 100.

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AMEF CHAIRMAN STATES CASE FOR PHYSICIAN SUPPORT

(Continued from Page 478)

medical schools. is surpassing the amount obtained through taxes and endowments.

It is estimated that over two hundred million dollars are required for operating expenses each year. So far, the AMEF has only been able to raise and contribute one-half of one per cent of this amount.

The State of Michigan with approximately 6,000 physicians contributed less than ten thousand dollars last year, or only 1/100th of the million raised. This represents approximately one-and-a-half dollars for each doctor in the state, whereas $10 should be the absolute minimum. Nine states have solved this problem by an increase in state dues ranging from $5 to $20. Even a $10 levy in Michigan would produce $60,000, or over six times what is now contributed.

Only 44,000 doctors participated last year. If one hundred thousand doctors contributed $100 each, ten million needed dollars would be raised. We can rest assured if this money is not contributed by doctors, our Federal Government will allocate the necessary funds and, inevitably, Federal control over our medical schools will be increased.

The AMEF provides the mechanism through which individual members of the medical profession can shoulder their share of the support of our medical education system. The AMA underwrites all costs of promotion and adminitsration of the Foundation. Thus, AMEF is one of the few organizations raising money where the entire income goes to the cause for which the contributions are given.

Doctors have felt generally that the voluntary method of giving should be preserved. Recent experience in Wayne County during our Building Fund Drive, indicates only about 50 per cent of the membership will contribute adequately on a voluntary basis.

If our medical schools are to preserve some semblance of freedom from Federal control, the physicians of America must drastically increase their contributions to the AMEF. All physicians of Michigan should, in their own best interest, make as an absolute minimum a $10 contribution to this fund. Checks should be made payable to the AMEF and mailed to 535 North Dearborn Street, Chicago, Illinois. A physician may specifically earmark his contribution for the medical school of his choice.

Any amount you give is tax deductible. Make a contribution now toward the debt you can never fully repay. — F. P. Rhoades, M.D., AMEF Chairman for Michigan, in *Detroit **Medical News,*** February 17, 1958.

MSMS PARTICIPATION CARDS READIED

In line with the 1957 House of Delegates action, Medical Service Enrollment cards are now being prepared for distribution to all Michigan doctors of medicine. Return of the signed cards will enroll the physician as a participating doctor with Michigan Medical Service (Blue Shield) only.

In announcing the new plan, Max L. Lichter, M.D., chairman of the MSMS Medical Care Insurance Committee, said:

"With the introduction of the new cards, doctors will be, in a sense, participating with their own State Medical Society. The cards will authorize the Society to enroll the signed physician with a specific insurance plan that has met the requirements set forth in the Society's Statement of Principles of Prepaid Medical Care Insurance, approved by Delegates last September."

Doctor Lichter continued:

"Doctors will be authorizing their participation with Blue Shield by signing this card. If, in the future, another plan becomes available, Michigan doctors will be given a separate opportunity to participate in the additional plan if they wish."

The MSMS Participation Campaign is setting its sights on 99 44/100 per cent participation of medical society members. The provisions of the new Blue Shield contracts and its fee schedules were developed after months of study during which interested groups and individuals presented their views and recommendations.

DOCTORS' MEDICAL SERVICE ENROLLMENT AUTHORIZATION

_____, 195——

To Michigan State Medical Society:

I am a doctor of medicine, duly licensed to practice in the State of Michigan and am willing to provide medical services under such pre-payment service plans as shall conform to the Statement of Principles heretofore adopted by the House of Delegates of Michigan State Medical Society. I hereby authorize you to enroll me as a participating doctor under the approved plan of Michigan Medical Service, a non-profit corporation.

It is understood that my enrollment thereunder may be discontinued at any time by giving you thirty (30) days notice in writing to discontinue my participation.

It is further understood that upon the approval by Michigan State Medical Society of any additional plan or plans, I am to be given notice thereof and the opportunity to determine whether or not I wish to participate thereunder.

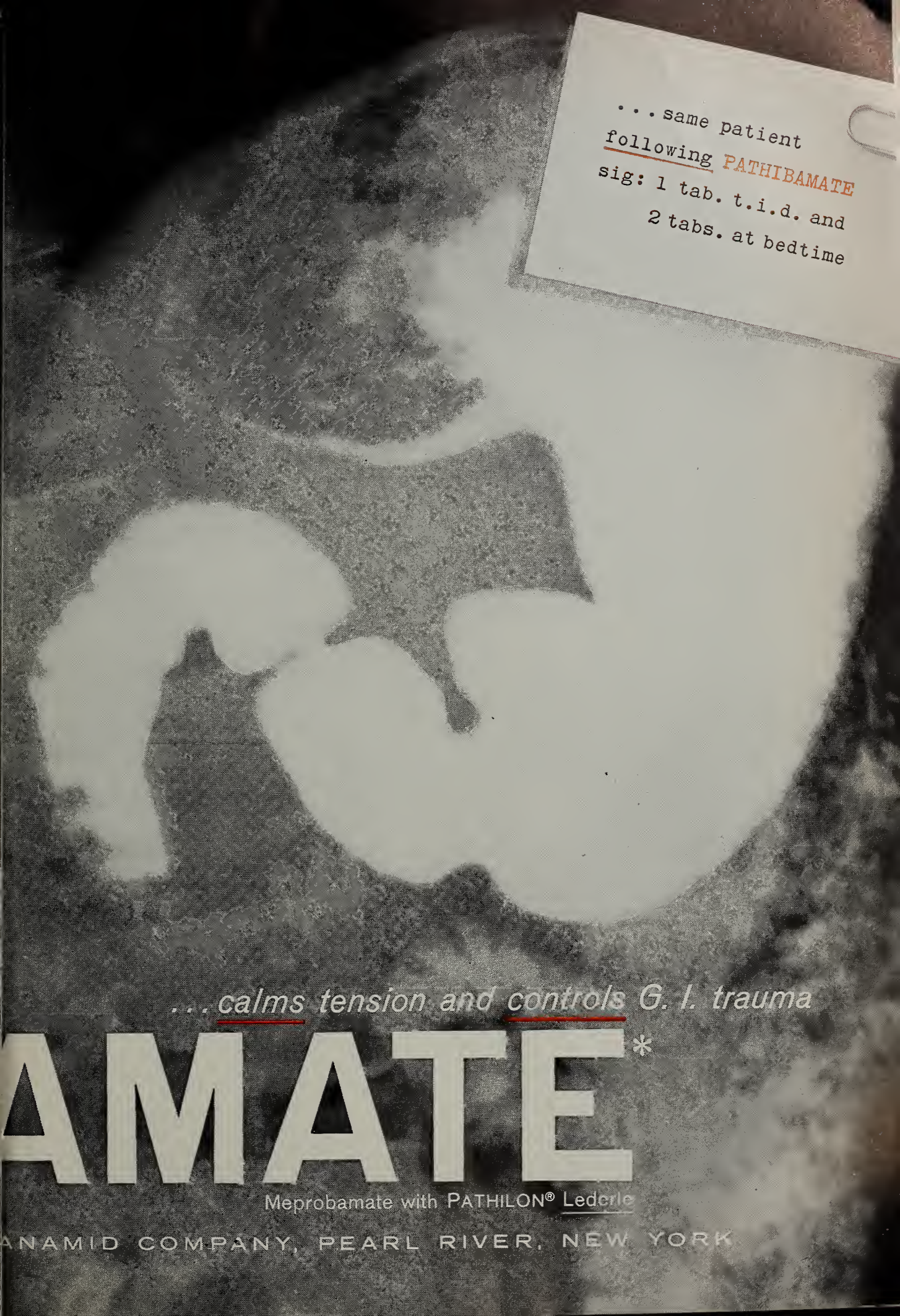
_____, M.D.

My office address to which all communications are to be sent is:

(Please print or typewrite name)

(Street & Number) (City or Town)

(Turn to Page 484)


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sig: 1 tab. t.i.d. and
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MEDICARE IDENTIFICATION CARD

Considerable comment and inquiries reflect the need for further clarification in respect to the use of the "Uniformed Services Identification and Privilege Card" (DD Form 1173) subsequent to January 1, 1958.

The primary means of identification continues to be the DD Form 1173. When this identification card is not available and treatment is required under emergency conditions and similar circumstances (to mean those instances in which treatment is necessary for the preservation of life, health, or well-being of the patient, including in general, bodily injuries, medical or surgical conditions, and obstetrical and maternity care) one of the following forms of identification will be acceptable:

(a) Statement of a local commander having knowledge of the sponsor's status that the patient is a bona fide dependent.

(b) Other official uniformed services documents and/or identification cards signed by an official, reflecting the patient as being a dependent eligible for civilian care under Medicare.

(c) Statement of the physician or hospital authority that he has personal knowledge of the identification of the patient, or her dependency status, and eligibility for civilian care under Medicare.

(d) Civilian type identification such as Social Security card, driver's license, et cetera, identifying the party certifying to eligibility in Section III of the claim form as being the individual so stated. When this type of identification is used, care should be exercised in assuring that the name on the identification document used is the same as the name signed in Section III.

Undated or expired cards are not considered acceptable and, in those instances where expired cards are presented, the same provisions apply as if no card were presented.

MICHIGAN CANCER COORDINATING COMMITTEE

MR. CHARLES F. ARNOLD.....Chief Engineer, Cadillac Motor Division, 2860 Clark, Detroit 10
Representing S.E. Michigan Division, American Cancer Society

MR. RUSSELL E. BOWERS..903 Genesee Bank Bldg., Flint
Representing Michigan Division, Inc., American Cancer Society

J. A. COWAN, M.D.....Michigan Dept. of Health, Lansing
Representing Michigan Department of Health

M. A. DARLING, M.D.....673 Fisher Bldg., Detroit
Representing S.E. Michigan Division, American Cancer Society

J. D. HEASLIP, M.D.....Pennock Hospital, Hastings
Representing Michigan Health Officers Association

L. E. HOLLY, M.D.....876 Second St., Muskegon
Representing Michigan Division, Inc., American Cancer Society

J. W. HUBLY, M.D.....1407 2nd Nat'l Bank Bldg., Battle Creek
Representing Michigan State Medical Society

W. A. HYLAND, M.D.....Metz Bldg., Grand Rapids
Representing Michigan State Medical Society

W. A. IRWIN, M.D.....Providence Hospital, Detroit
Representing Michigan State Medical Society

B. E. LUCK, D.D.S.....1512 Mich. Nat'l Tower, Lansing
Representing Michigan State Dental Association

H. M. NELSON, M.D.....1067 Fisher Bldg., Detroit
Representing S.E. Michigan Division, American Cancer Society

C. A. PAYNE, M.D...Blodgett Mem. Hosp., Grand Rapids
Representing Michigan Division, Inc., American Cancer Society

H. M. POLLARD, M.D.....University Hospital, Ann Arbor
Representing Michigan State Medical Society

MEDICAL MEETINGS AND CLINIC DAYS

Spring 1958	MSMS Postgraduate Extramural Courses	Statewide
April 1958		
24-25	Wayne State University 4th Annual Nutrition Conference	Detroit
May 1958		
1	Ingham County Clinic Day	Lansing
6-7	Wayne State University 90th Annual Clinic Day and Alumni Reunion	Detroit
14	Conference on Rehabilitation	MSU, Kellogg Center, East Lansing
June 1958		
11	Sinai Hospital Alumni Day	Detroit
20-21	Upper Peninsula Medical Meeting	Marquette
July 1958		
24-25	Coller-Penberthy Clinic	Traverse City

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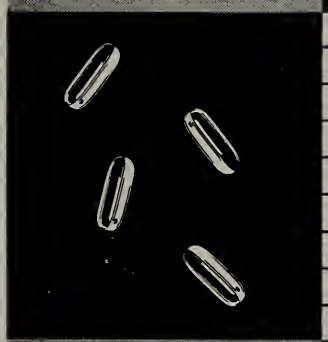
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Seminar Draws Record Representation

If knowledge is power, guests who attended the 1958 County Secretaries-Public Relations Seminar are more powerful than ever after absorbing the information presented in Detroit, February 1-2.

Meeting Co-Chairmen John M. Wood, M.D., Mt. Pleasant, and R. W. Teed, M.D., Ann Arbor, reported that a record 71 per cent of the county medical societies were represented at this year's conference.

The seminar opened with a reception on Saturday evening and closed following luncheon on Sunday.

After a "Know Your Neighbor" dinner in the ballroom of the Statler Hotel, Moderator George W. Slagle, M.D., Battle Creek, MSMS president, introduced a panel presentation on "The New Basic Principles Governing Prepayment Contracts—How MSMS is Meeting the Challenge."

So that the overflow crowd might have adequate background information, the presentation recounted the history of prepayment medical care coverage in Michigan from its early beginning up to the present day. The last panelist traced the development of the new prepayment contracts now being drawn by Michigan Medical Service in co-operation with the MSMS Medical Care Insurance Committee.

The panel included L. Fernald Foster, M.D., Detroit, President, Michigan Medical Service; J. C. Ketchum, Detroit, MMS Executive Vice President; H. W. Brenneman, Lansing, MSMS Public Relations Counsel; and Max L. Lichter, M.D., Melvindale, Chairman, MSMS Medical Care Insurance Committee.

At a breakfast meeting on Sunday morning, chaired by D. Bruce Wiley, M.D., MSMS Council Chairman, information on the new MSMS building was presented by W. S. Jones, M.D., Menominee, Chairman of the MSMS Committee on the "Big Look."

Leroy G. Vandeveer, LL.B., Detroit, outlined the new Statement of Principles between M.D.'s and Lawyers in his capacity as Chairman of the Joint Committee with MSMS and the State Bar of Michigan.

Participating in the demonstration of the new MSMS mediation, ethics and grievances procedures were H. T. Knobloch, M.D., Bay City, Secretary, Bay-Arenac-Iosco County Medical Society; J. B. Rowe, M.D., Flint, Secretary, Genesee County Medical Society; Lester P. Dodd, LL.B., Detroit, MSMS Legal Counsel; and William J. Burns, LL.B., Lansing, MSMS Executive Director.

The Public Relations Program was chaired by R. Wallace Teed, M.D., who introduced F. J. L. Blasingame, M.D., Chicago, General Manager, American Medical Association, whose topic was "Pressures, Policies and Public Relations." W. F. Doyle, Lansing, spoke on "The Process of Legislation."

At the closing luncheon, The Honorable Charles E. Chamberlain, Congressman, Sixth District, Lansing, told "What a Congressman Needs to Know About Medicine."

Elected Chairman of the 1959 Seminar to be held next January was J. E. Mahan, M.D., of Allegan.

Those present at the 1958 Seminar included:

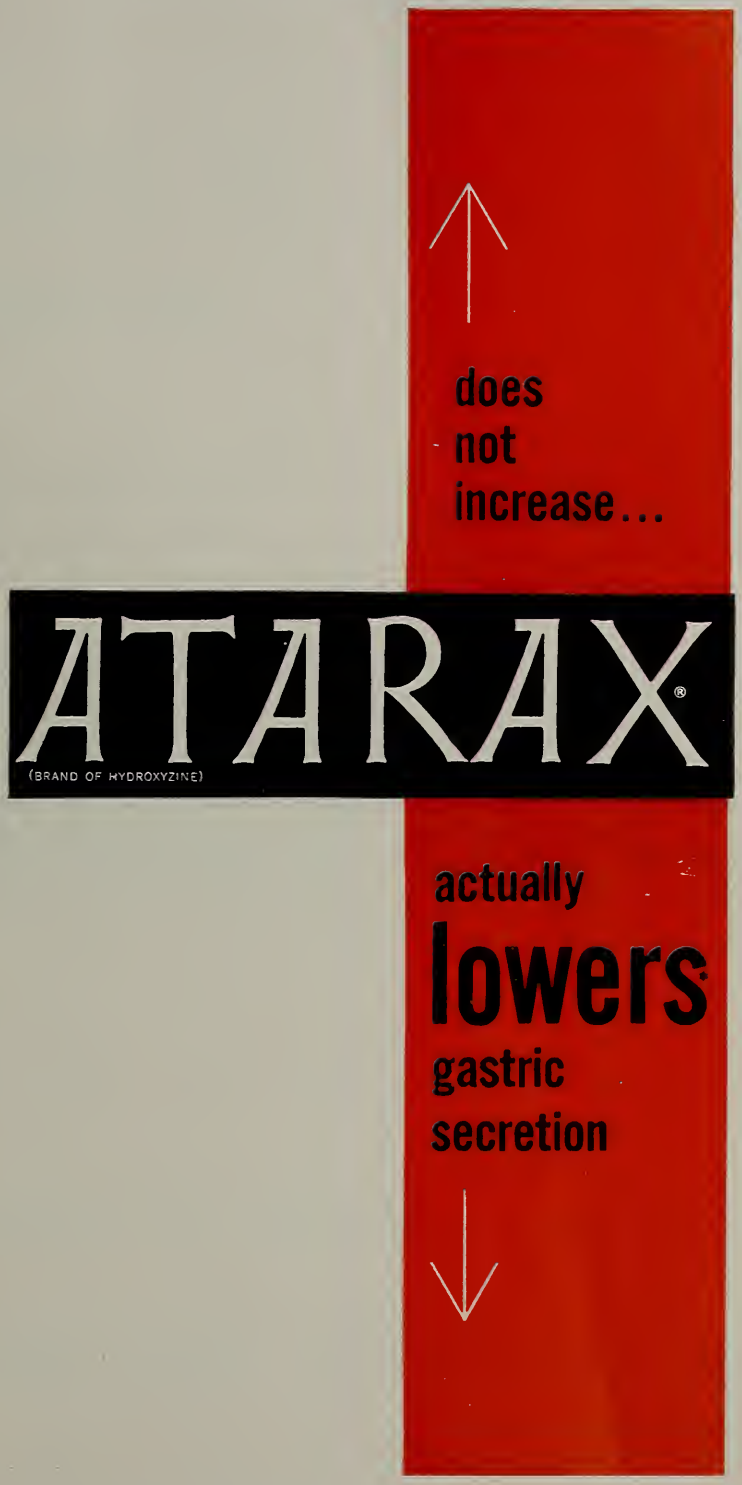
County Secretaries.—J. E. Mahan, M.D. (Allegan); Harold Kessler, M.D. (Alpena-Alcona-Presque Isle); E. L. Phelps, M.D. (Barry); H. T. Knobloch, M.D. (Bay-Arenac-Iosco); J. C. Heffelfinger, M.D. (Branch); S. A. Yannitelli, M.D. (Calhoun); T. B. Mackie, M.D. (Chippewa); Joseph L. Riley, M.D. (Eaton); J. B. Rowe, M.D. (Genesee); J. M. Wood, M.D. (Gratiot-Isabella-Clare); F. M. Wessels, M.D. (Hillsdale); C. F. Wible, M.D. (Huron); J. A. Van Loo, M.D. (Ionia-Montcalm); H. W. Porter, M.D. (Jackson); Robert D. Warnke, M.D. (Kalamazoo); James R. Doty, M.D. (Lapeer); Eleanor Skufis, M.D. (Lenawee); R. M. Duffy, M.D. (Livingston); A. W. Suksta, M.D. (Macomb); J. R. Acocks, M.D. (Marquette-Alger); James E. Walters, M.D. (Mecosta-Osceola-Lake); R. A. Frary, M.D. (Monroe); H. C. Tellman, M.D. (Muskegon); Charles L. Oppy, M.D. (North Central); E. F. Crippen, M.D. (Northern Mich.); G. N. Petroff, M.D. (Oakland); Charles G. Kramer, M.D. (Saginaw); Glenn E. Mohney, M.D. (St. Clair); Clark G. Porter, M.D. (St. Joseph); E. W. Blanchard, M.D. (Sanilac); A. E. Parks, M.D. (Van Buren); B. C. Payne, M.D. (Washtenaw); Francis P. Rhoades, M.D. (Wayne).

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County Presidents-Elect.—A. Peter Brachman, M.D. (Allegan); G. L. Hagelshaw, M.D. (Bay-Arenac-Iosco); Richard C. Crowell, M.D. (Berrien); Leo R. Wickert, M.D. (Gratiot-Isabella-Clare); Jason B. Meads, M.D. (Jackson); J. G. Malone, M.D. (Kalamazoo); Daniel L. Rosseau, M.D. (Macomb); Walter A. Meier, M.D. (Monroe); N. A. Fleishman, M.D. (Muskegon); Robert

(Continued on Page 488)

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references: 1. Strub, I. H.: Personal communication. 2. Ayd, F. J., Jr.: presented at Ohio Assembly of General Practice, 7th Annual Scientific Assembly, Columbus, September 18-19, 1957.

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(Continued from Page 486)

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County Bulletin Editors.—Charles J. Ryan, M.D. (Calhoun); Philip K. Stevens, M.D. (Genesee); W. N. Sisk, M.D. (Kalamazoo); G. E. Braunschneider, M.D. (Kent); Wm. J. Hanley, M.D. (Muskegon); Milton R. Weed, M.D. (Wayne).

County Society Public Relations Chairmen.—John W. Bunting, M.D. (Alpena); A. B. Gwinn, M.D. (Barry); O. J. Johnson, M.D. (Bay-Arenac-Iosco); F. W. Smith, M.D. (Clinton); George E. Anthony, M.D. (Genesee); David Kahn, M.D. (Ingham); Edward C. Lake, M.D. (Jackson); D. P. Moore, M.D. (Kent); Victor Curatolo, M.D. (Macomb); George H. Hopson, M.D. (Menominee); L. E. Grate, M.D. (Northern Michigan); Edgar J. Geist, Jr., M.D. (Oakland); John H. Kitchel, M.D. (Ottawa); John M. Jacobowitz, M.D. (St. Joseph); James H. Graves, M.D. (Shiawassee).

MSMS Council.—W. M. LeFevre, M.D. (Muskegon); B. T. Montgomery, M.D. (Chippewa-Mackinac); E. S. Oldham, M.D. (Gratiot-Isabella-Clare); C. Allen Payne, M.D. (Kent); Donald G. Pike, M.D. (Grand Traverse-Leelanau-Benzie); G. B. Saltonstall, M.D. (Northern Michigan); Ralph W. Shook, M.D. (Kalamazoo).

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Woman's Auxiliary Representatives.—Mrs. Robert Warnke (Kalamazoo); Mrs. C. Allen Payne (Kent); Mrs. A. B. Aldrich (Houghton); Mrs. Harold Gay (Midland).

(Continued on Page 492)

RECORD OF ATTENDANCE AT MSMS COUNTY SECRETARIES-PUBLIC RELATIONS SEMINAR

February 1-2, 1958

County or District Medical Society	*Pres.*	*Pres.-Elect.*	*Secy.*	*P.R. Chairman*	*Editor*	*MSMS Councilor*	*MSMS P.R. Committees*	*Exec. Secy.*
Allegan	X	X	X	O	N	N	N	N
Alpena-Alcona-Presque Isle	O	O	X	X	N	N	O	N
Barry	O	O	X	X	N	N	O	N
Bay-Arenac-Iosco	X	X	X	X	O	O	X	N
Berrien	O	X	O	O	O	N	N	N
Branch	X	N	X	O	O	O	O	N
Calhoun	X	O	X	O	X	X	O	N
Cass	O	N	X	N	N	N	N	N
Chippewa-Mackinac	O	O	X	O	N	X	O	N
Clinton	X	O	O	X	N	N	N	N
Delta-Schoolcraft	O	O	O	O	N	N	N	N
Dickinson-Iron	X	O	O	N	N	N	N	N
Eaton	O	O	X	O	N	X	N	N
Genesee	X	O	X	X	X	O	XXOO	X
Gogebic	O	O	O	O	N	N	N	N
Grand Traverse-Leelanau-Benzie	O	O	O	O	O	X	O	N
Gratiot-Isabella-Clare	O	X	X	O	N	X	X	N
Hillsdale	O	O	X	N	N	N	N	N
Houghton-Baraga-Keweenaw	X	O	O	O	O	O	N	N
Huron	O	N	X	O	N	N	O	N
Ingham	X	O	O	X	O	O	XO	N
Ionia-Montcalm	X	O	X	O	N	N	N	N
Jackson	X	X	X	X	N	N	N	N
Kalamazoo	O	X	X	O	X	X	O	N
Kent	X	O	O	X	X	X	X	X
Lapeer	X	N	X	O	N	N	N	N
Lenawee	X	O	X	O	N	N	N	N
Livingston	O	O	X	O	N	N	N	N
Luce	O	N	O	N	N	N	N	N
Macomb	X	X	X	X	N	ON	O	N
Manistee	O	O	O	O	N	N	N	N
Marquette-Alger	O	O	X	O	N	N	N	N
Mason	O	N	O	O	N	N	O	N
Mecosta-Osceola-Lake	O	O	X	O	N	N	N	N
Menominee	O	O	O	X	N	N	N	N
Midland	O	O	O	O	N	N	N	N
Monroe	X	X	X	O	N	N	O	N
Muskegon	X	X	X	O	X	X	O	O
Newaygo	O	O	O	O	N	N	N	N
North Central	O	O	X	N	N	N	N	N
Northern Michigan	O	O	X	X	O	X	O	N
Oakland	O	X	X	X	O	N	X	X
Oceana	O	N	O	N	N	N	N	N
Ontonagon	O	O	O	O	N	N	O	N
Ottawa	O	O	O	X	N	N	O	N
Saginaw	X	X	X	O	O	N	O	X
St. Clair	O	X	X	O	N	O	XO	N
St. Joseph	O	O	X	X	N	N	O	N
Sanilac	O	N	X	N	N	N	N	N
Shiawassee	O	O	O	O	N	N	X	N
Tuscola	O	O	O	N	N	N	N	N
Van Buren	O	O	X	O	N	N	O	N
Washtenaw	X	O	X	O	O	O	XO	O
Wayne	O	X	X	O	X	O	XXXXOOOO	O
Wexford-Missaukee	O	O	O	O	O	N	N	N

O—Not Represented; X—Present; N—None.

Others present at the Seminar were: Woman's Auxiliary representatives, 4; Michigan State Medical Assistants Society representatives, 4; Michigan Medical Service representatives, 12; Seminar speakers, 18; guests, 58.

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MEPROLONE-1—supplies 1.0 mg. prednisolone in the same formula as MEPROLONE-2 (bottles of 100).

1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).
2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

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relieves both muscle spasm and joint inflammation

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(Continued from Page 488)

Michigan State Medical Assistants Society Representatives.—Reta V. Shedd (Calhoun); Donna Hislop (Muskegon); Hallie Cummins (Tuscalo); Marlouise Redman (Wayne).

MSMS Public Relations Committee.—W. G. Gamble, M.D. (Bay-Arenac-Iosco); A. C. Pfeifer, M.D. (Genesee); W. Z. Rundles, M.D. (Genesee); F. C. Brace, M.D. (Kent); Eugene L. Spoehr, M.D. (Oakland); F. E. Ludwig, M.D. (St. Clair); Claude L. Weston, M.D. (Shiawassee); Victor M. Zerbi, M.D. (Washtenaw); Sidney E. Chapin, M.D. (Wayne); Russell F. Fenton, M.D. (Wayne); E. C. Long, M.D. (Wayne); Glenn E. Millard, M.D. (Wayne).

Participants on the Program.—F. J. L. Blasingame, M.D. (Chicago); Wm. J. Burns (Lansing); H. W. Brenneman (Lansing); The Honorable Charles E. Chamberlain (Lansing); Lester P. Dodd (Detroit); W. F. Doyle (Lansing); L. Fernald Foster, M.D. (Detroit); W. S. Jones, M.D. (Menominee); J. C. Ketchum (Detroit); M. L. Lichter, M.D. (Melvindale); George W. Slagle, M.D. (Battle Creek); R. W. Teed, M.D. (Ann Arbor); Leroy G. Vandeveer, LL.B. (Detroit); D. Bruce Wiley, M.D. (Utica).

Guests.—Henry Alexander (Detroit); Mrs. George Anthony (Flint); Grace Auer (E. Lansing); Herb Auer (E. Lansing); Rudy Bolich (Marquette); Wm. Boyles (Detroit); Russ Burns (Detroit); R. D. Cecconi, M.D. (Iron Mountain); Arthur Clements (Detroit); J. M. Cook, M.D. (Charlotte); Versa V. Cole (Tuscola); Verne Collett (Wayne); W. T. Coulter (St. Paul, Minn.); Arthur L. Crampton (Lansing); Mrs. Richard C. Crowell (St. Joseph); Mrs. Jinny Curatolo (Mt. Clemens); J. A. Doherty (Lansing); Mrs. Harold Dykhuizen (Muskegon); Lucille Fenton (Detroit); Mrs. W. G. Gamble (Bay City); L. G. Goodrich (Detroit); Jean A. Graves (Owosso); Earl E. Hamilton (Traverse City); Virginia Hamilton (Traverse City); Harvey C. Hansen, M.D. (Calhoun); Stella Hansen (Battle Creek); Wilfrid Haughey, M.D. (Battle Creek); Mrs. Paul Ivkovich (Reed City); Paul Ivkovich, M.D. (Reed City); Alfred Jackson (Chicago); Mrs. O. J. Johnson (Bay City); Mrs. David Kahn (Lansing); Daniel J. Kehoe (Detroit); John Lindsey (Oradell, N. J.); Dorothy Long (Detroit); Jane Ludwig (Port Huron); Mrs. T. B. Mackie (Sault Ste. Marie); B. L. Masters, M.D. (Detroit); W. G. McClimans (Grand Rapids); Richard M. McDermott (Detroit); R. H. McDonough (Grand Rapids); Mrs. Walter A. Meier (Monroe); Janet Mitchell (Wayne); Mrs. D. P. Moore (Grand Rapids); Mrs. B. T. Montgomery (Sault Ste. Marie); Robert M. Morse (Traverse City); John Nelson (Detroit); J. Irwin Nichols (Lansing); Harry Parke (Lansing); Tom Paton (Detroit); Betty Porter (Three Rivers); R. E. Reagan, M.D. (Benton Harbor); Mrs. Agnes Reagan (Benton Harbor); Chuck Rickett (Detroit); Howard Robinson, M.D. (Detroit); Mrs. H. Robinson (Detroit); Mrs. Daniel L. Rousseau (Mt. Clemens); Mrs. John Rowe (Flint); Clark W. Royer, M.D. (Calhoun); Phyllis Royer (Battle Creek); Mrs. Charles J. Ryan (Battle Creek); D. F. Sarapo, M.D. (Adrian); Lois Sarapo (Adrian); Helen Schick (Detroit); Edward Shadduck (Detroit); Mrs. Ralph Shook (Kalamazoo); Mrs. W. N. Sisk (Kalamazoo); Mrs. P. Stevens (Flint); Mrs. L. C. Stewart (Adrian); Kay Topp (Detroit); John E. Verbiest (Detroit); Mrs. James E. Walters (Big Rapids); Mrs. M. R. Weed (Detroit); Ruth C. Weston (Owosso); Warren G. White (Muskegon); Mrs. Sherwood Winslow (Battle Creek).

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Acetylsalicylic acid	325 mg.
Aluminum hydroxide	75 mg.
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References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

Acute conditions: Two or three tablets four times daily. After desired response is obtained, gradually reduce daily dosage and then discontinue.

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Cancer Comment

WHAT TO DO WITH THE "PAP" SMEAR REPORT

The cell examination for uterine cancer is undoubtedly the tool which will eventually bring this form of malignancy under control so that it will be a minor factor in cancer morbidity and mortality in women. If this simple method can be applied annually to the routine pelvic examinations of all women over twenty-five years, we can look forward to the day, in the not too distant future, when uterine cancer in its invasive stage will be less common than lobar pneumonia, polio, or other infectious diseases.

The more widespread use of this method, however, clearly indicates that there is lack of proper understanding of how the reports of these examinations should be handled to give maximum protection against uterine cancer. Attempts at followup in recent series of these examinations show that clinicians too frequently disregard or pass off lightly "positive" or "suspicious" reports. So that there will be maximum benefit from these examinations, the following plan of action is strongly recommended.

Furthermore, it cannot be too strongly emphasized that *all suspicious and positive "Pap" smear reports MUST be confirmed by conventional biopsy studies before definite treatment* (surgery, x-ray, or radium) *before cancer of the uterus is carried out.*

Most pathologists today report results of these tests as negative, suspicious, or positive instead of using the more complicated scheme originally developed by Dr. Papanicolaou. On the basis of this simplified reporting scheme, it is recommended that the reports be handled as follows:

Negative Report.—A negative report in the absence of visible changes in the cervix or suspicious patient symptoms indicates repetition of the smears at periodic intervals probably annually. The presence of suggestive signs or symptoms of uterine pathology are, however, an indication for immediate repetition of the smears. If the second report is negative but the signs and symptoms remain, there is still indication for immediate further investigation of the findings. This should include cervical biopsy and/or D and C. While biopsy of an apparent cervical lesion or quadrant biopsy in other cases may be adequate in most instances, the best recommendation is a cold knife cone biopsy. This type of biopsy which secures tissue from high in the cervical canal, coupled with a D and C (both hospital procedures) will give the maximum amount of information in ruling out cancer of the uterus. The pathologist must make multiple slides of the entire cone biopsy as well as the D and C materials, to insure adequacy of the examination. The cervical biopsy of course should be obtained before the D and C. If these studies are negative for cancer, the smears should be repeated in six months. Positive biopsies on the other hand require treatment as indicated by the type of cancer found.

Suspicious Report.—This type of report has caused the greatest amount of uncertainty and confusion in the minds of some clinicians. It is recommended that the test should be repeated immediately, although if a lesion is visible, one may wish to proceed directly to biopsy of the lesion or quadrant biopsy of the cervix. A second suspicious report is a clear and mandatory indication for a cold knife cone biopsy and D and C. If these studies are negative, the smears should be repeated in a suitable period of from three to six months. If however, the biopsy studies are positive for cancer, the patient must be treated as indicated by the type of cancer found.

Positive Report.—A positive smear is a clear mandatory indication for immediate biopsy and D and C. Here it is strongly recommended that a cold knife cone biopsy be carried out *before* the D and C, and the curettings from the cervical canal be kept separate from the endometrial specimens in order to further rule out squamous cell cancers which sometimes arise high in the cervical canal. Negative biopsies should indicate repetition of the smears in three months whereas positive biopsies should indicate immediate treatment according to the type of cancer found.

C. Allen Payne, M.D.

Over a thirty-year period, in a group of 7,941 hospitalized patients over sixty-one years of age, cancer was found in 1,110, or 13.9 per cent.

* * *

In 1,177 autopsies, unsuspected cancer was found in 292 cases, or 24.8 per cent. Twenty-two, or 2 per cent of these patients, had multiple cancers.

* * *

It should never be forgotten that cancerphobia existed long before the present educational program was developed.

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BOTH CHILDREN AND ADULTS



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FORMULA: Each teaspoonful (5 cc.) contains:

l-Lysine HCl	300 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Vitamin B_{12} Crystalline	25 mcgm.
Thiamine Mononitrate (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Alcohol	0.75%

Average dosage is 1 teaspoonful daily.
Available in bottles of 4 fl. oz.

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PR REPORT

STORMY SEAS FOR SHIP OF STATE, AND FOR MSMS CREW, TOO

There's an old saw among air force navigators that goes something like "we're still lost, but we're making very good time!" Observers on the capitol scene in Lansing quickly admit that that wary appraisal of the situation accurately fits this year's "short session" of the state Legislature.

These even-numbered-year sessions are geared to a rigid time schedule. Committees meet day and night. Public hearings overlap and invade each other in crowded chambers. Midnight oil burns fiercely. The slightest faltering in the progress of a bill is apt to spell its doom. Still, after two months of such legislative industry, the major problems of Michigan are yet to be solved. The Legislators have worked very, very hard but up to mid-March have accomplished very little.

That order emerges from the seeming chaos is a wonder. Yet, wonder or no, order does prevail, and when this item appears in print the lawmakers will have resolved the problems of state for fiscal 1958-59, paid up their final hotel bills and headed for home to prepare for the fall election campaigns.

Without detracting in any way from the wisdom and abilities of the individual lawmaker, it should be pointed out that there is a "magic" ingredient that makes this remarkable result possible. It is the ready availability of the wise counsel and advice of specialists in each field of governmental interest, be it agriculture, traffic safety, medicine, or whatever.

MSMS members who have selflessly made their energies, counsel and advice on matters of the health care of the public available to their Legislators can take justifiable pride in the success of their efforts.

This column would like to extend a well-deserved vote of appreciation to all contributors to the MSMS legislative effort.

ORIGINS OF SELF-REGULATION IN MEDICINE: PART III

By Gaylord S. Bates, M.D.

We have now reached a period in time when medicine fell back into the priesthood not to emerge until about the 12th century so far as the Western World is concerned. We have seen that in various parts of the civilized world, society had already evolved measures of protection for its members against the unique powers of the physician by the use of fee codes, retaliation for what we might call malpractice, restrictions on the right to practice medicine, and by regulation of the teaching of medicine. Concomitantly, in the highest civilization of all the ancient world, the Greek physicians evolved a professional code of morals and conduct which stood unchallenged till the 19th century, and is still unsurpassed as expressing the idealism of medicine.

By the 12th century the rebirth of learning had given rise to the founding of universities. The church no longer favored the practice of medicine by clerics. The profession again came into lay hands though the church kept a heavy hand upon the institutions of learning. The surgeon was a craftsman and fell easily into the guild system. Guilds were vocational groups established in the growing cities of the 11th and 12th centuries. The state compelled the joining of them and no craftsman could exercise his craft outside the guild. By state decree they became self-regulation bodies, essentially monopolistic, guaranteeing a certain quality of work to society, and certain privileges to themselves. Surgeons at that time were usually barbers and bath house keepers. Physicians, not being craftsmen, became members of a liberal academic profession, ultimately organized, and their regulating body became by statute the medical faculty of the universities. The first regulations were issued in connection with the first medical faculty of the western world at the school of Salerno in 1140 when Norman King Roger issued an order to the effect that one who wished to practice medicine had to present himself before officials and examiners of the Masters of Salerno, and prohibiting the practice by anyone who did not so present himself.

The most remarkable set of regulations concerning medicine is to be found in the Imperial Constitution of Frederick the Second of Hohenstaufen, Emperor of the Romans and King of Sicily and Jerusalem. He was an unusual ruler who effected a complete reorganization of his state. The unique feature of his plan was that the state should be administered by non-clerical officers responsible to him alone. In order to supply the state with informed officials he founded the University of Naples in 1224. Seven years later Frederick published the famous Imperial Constitution, a remarkable collection of laws which set the pattern for future bureaucratic state organization and included two regulations for medicine, which I shall relate in part.

(Continued on Page 500)

This is the third installment of a paper presented before the Detroit Academy of Medicine at the Dearborn Inn, November 12, 1957.



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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

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ORIGINS OF SELF-REGULATION IN MEDICINE

(Continued from Page 498)

Liber III, Titulus XLVI

CONCERNING DOCTORS

Because the science of medicine can never be known unless some knowledge of logic is first acquired, we decree that no one shall study medical science unless he has first studied the science of logic for at least years; after this period of three years, if he wishes the student may advance to the study of medicine to which he must devote five years, in such wise that he shall within the prescribed period of study, learn in addition that field of medicine which is surgery. After this and not before, he will be granted a license to practice as a doctor, provided he has first attended an examination of a form prescribed by the Government, and has also received a testimonial from his master certifying that he has completed the prescribed period of study.

A doctor shall swear that he will observe the regulations fixed by the Government up to this time . . .

No doctor shall practice after the completion of the five-year period who has not practiced for an entire year under the direction of an experienced doctor. During the period of five years the masters shall teach in the schools the authenticated books of both Hippocrates and Galen, and shall instruct in the theory as well as in the practice of medicine. Moreover, we decree as a measure for the public health that no surgeon shall be admitted to practice who does not present testimonials from masters in the faculty of medicine, stating that he has studied for at least a year in that field of medicine which develops skill in surgery; in particular, that he has learned in the schools the anatomy of human bodies, and that he is proficient in that field of medicine without which incisions cannot be safely made nor fractures healed.

Liber III, Titulus LXV

THAT NO MAN SHALL DARE TO PRACTICE UNTIL HE HAS BEEN OFFICIALLY CERTIFIED IN THE CONVENTION OF THE MASTERS OF SALERNUM. EMPEROR FREDERICK

We secure advantage to the individual whenever we provide for the health of our faithful subjects. Accordingly, being mindful of the heavy loss and irreparable harm that can result from the experience of doctors, we order that in future no one alleging the title of doctor shall dare to practice in any other manner, or even to heal unless he shall first be certified by the judgment of the masters in the public convention at Salernum, and licensed by testimonials as to his trustworthiness and sufficient science from his masters and from our representatives . . . the penalty of confiscation of goods and a year's imprisonment shall await those who in future venture to practice in defiance of this ordinance of our serene majesty.

A matter of particular interest in regard to these laws is the fact that the practice of medicine was then regarded as is the practice of medicine today, as a privilege and not as a matter of right. To paraphrase Judge Cardozo, it is a privilege burdened with conditions. A fair private and professional character is one of them.

PUBLIC RELATIONS BEGINS IN THE DOCTOR'S OFFICE

Third installment of a paper by
R. Wallace Teed, M.D., Ann Arbor
Chairman, MSMS Public Relations Committee

The Patient Meets the Doctor

When the patient enters the consulting room he should be greeted respectfully but with no appearance of effusiveness on the part of the doctor. The patient likes to hear his own name, and addressing him by this name makes him feel that he is considered as an individual and not just another "case."

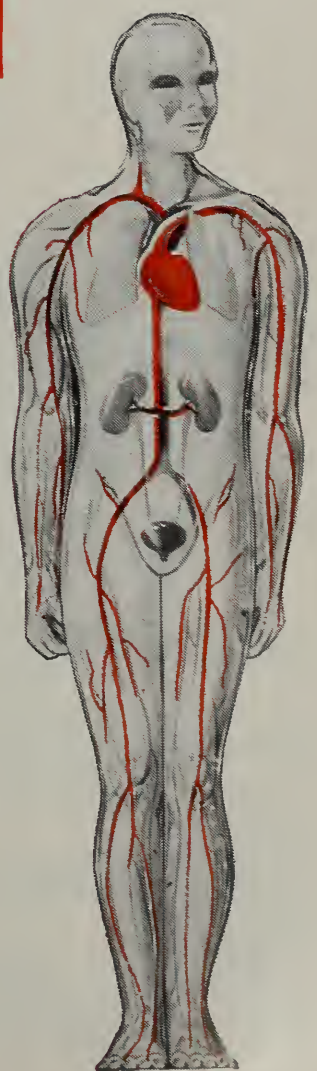
In taking the history it is well to let the patient say everything he wishes to say. He considers himself intelligent and has closely observed the symptoms, the detailing of which he feels will aid the physician in his diagnosis. If his attempt is brushed aside he will invariably feel that an important item has been overlooked, or that his intelligence has been discounted. However, if the physician patiently and sympathetically listens to his history, he feels that he is a part of the problem and that his intelligence has been complimented. Almost invariably he will include a great deal of extraneous material which the physician may consider a waste of time, but if the wheat is separated from the chaff it will practically always contribute to a correct diagnosis. Many errors in diagnosis could have been avoided simply by listening to the patient, and in some cases, the history is the most important part of the diagnosis.

Likewise, it does no harm to ask the patient what he thinks is the cause of the trouble, and even if he is wrong, he feels better toward the physician for asking. The day has passed that the physician can assume that the public considers him omniscient. Admitting this may lead some physicians to assume that the patient may consider them ignorant, but this is not so. People in general are not impressed by a know-it-all.

In making the physical examination, the physician should make a complete, careful survey, including consultation and laboratory work as indicated. Nothing contributes more toward poor patient relations than a hurried, slipshod examination. Most patients have been examined before, and know in general what to expect. They want to know that the physician is seriously attempting to locate the cause of their trouble. Likewise, the physician should not attempt to minimize complaints or findings. To the patient, these are important, otherwise he would never have come to the office in the first place.

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New Inservice Training Program Offered Medical Assistants

Courses for medical assistants opened in Jackson, Lansing and Pontiac in mid-February in a new inservice training program now being developed by the University of Michigan Extension Service at the request of the Michigan State Medical Assistants Society.

Purpose of the program is to give the medical assistant training that is needed to make her a more efficient worker. Most of the 8,000 medical assistants employed by practicing physicians in Michigan, records show, are in offices where there is only one worker. In such cases, the assistant may be the receptionist, the office manager, the bookkeeper, the cashier, the accountant, the medical technician, and the nurse. The only training which most of these medical assistants have had is that which the employing physician has been able to give.

The inservice program consists of six courses offering orientation in three major areas: medicine, business administration, and the humanities. The program has been outlined with the advice and co-operation of the education committee of the Michigan State Medical Assistants Society and of an advisory committee appointed by the Michigan State Medical Society. The Extension Service has obtained the co-operation of the University's School of Business Administration, School of Medicine, and the department of psychology of the College of Literature, Science, and the Arts in the preparation of the courses.

During the next two years, the six courses in the program will be scheduled on a rotating basis in cities located within a radius of 70 miles of Ann Arbor. The courses now under way are "Medical Information for Medical Assistants," offered in Pontiac by Harry A. Towsley, M.D., associate director of the department of postgraduate medicine, and staff; "Understanding Human Behavior," offered in Lansing by Dr. Stanley J. Segal, assistant chief, counseling division, bureau of psychological services; and "Secretarial Office Management," given in Jackson by Dr. Irene Place, associate professor of office management. The other three courses in the series will be "Medical Office Techniques for Medical Assistants," "Business Theory for Secretaries," and "Backgrounds in Medicine." All instructors in the program are members of the University of Michigan faculty.



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[1] Nichols, R. L. and Finland, M.: J. Clin. Med. 49:410, 1957.

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Rural Health Conference a Real Triumph

The peacetime uses of atomic energy as applied to community and individual health problems caught the attention of more than 300 persons who attended the 11th Annual Michigan Rural Health Conference, held at the University of Michigan, Ann Arbor, January 22-23, 1958.

Those attending this outstanding meeting were high in their praise of the caliber of the program developed by Dan E. Reed, General Chairman, and Harry A. Towsley, M.D., Vice-Chairman. Many labeled this the greatest program for a meeting of this type.

Fifty-six speakers and experts in health covered such atomic topics as radiation and food, the effects of radiation on the body, and the atom as a diagnostic and therapeutic tool. In addition, there were discussions on health careers, placing doctors in rural areas, health and recreation planning in suburban and rural areas, preventive medicine, farm and home accidents, poison control centers, utilization of health personnel in time of disaster, and medical-surgical insurance coverage.

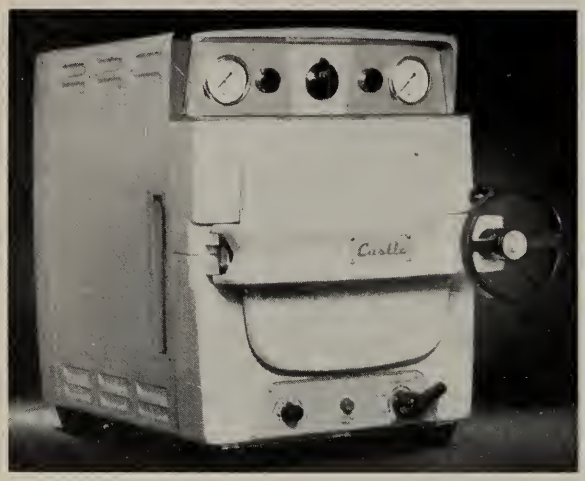
Eight awards were presented by the Michigan Health Council to persons or organizations for outstanding health activities.

Miss Marjorie Delavan, who retired as chief of the health education section of the State Health Department in 1957, received the Public Health Award. The Marshall School Health Council, of Marshall, Michigan, received an award for exceptional health work by a local organization. The Roseville Health Council and the Dearborn Health Council were given honorable mention awards.

Journalism awards went to the *Lansing State Journal* and the *Detroit Times*. They were recognized for their public service in printing the Survey of Consumer Opinion on Medical Care Protection questionnaire. The survey was conducted last summer by the Michigan State Medical Society in co-operation with the Michigan Health Council in an effort to find out what benefits Michigan residents wanted covered by their medical insurance policies.

Hugh W. Brenneman, of Lansing, and L. Gordon Goodrich, of Detroit, the Secretary and Treasurer of the Michigan Health Council, respectively, were lauded for ten years of service to the organization.

The Rural Health Conference is sponsored by the Michigan Foundation for Medical and Health Education — and co-sponsored by the Michigan Health Council—along with more than 100 state-level health associations.



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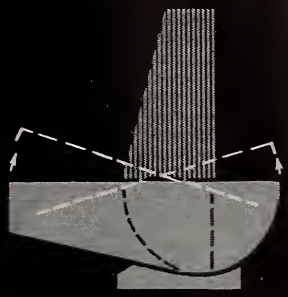
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AMA News Notes

NEW NAME FOR AMA'S DIRECT LINE TO MDs

One of AMA's best-known services to physicians recently changed its name. Beginning with the January 4, 1958 issue of *The Journal of the AMA* the "Queries and Minor Notes" section was carried under the title, "Questions and Answers." A check into the history of this service indicates that the first question from a physician was answered in the March 18, 1899 issue of JAMA under the heading, "Questions and Answers."

Each year, questions relating to practical medical problems come into the JAMA editorial offices at the rate of approximately 2,400 a year. Each query receives a personal reply. The answers are prepared by consultants recognized as competent authorities in their respective medical fields. At the present time, about 900 authorities in all parts of the United States and Canada are maintained as consultants. If the question and its answer seem to be of interest to the majority of doctors, the material is slated for publication in JAMA. Approximately 900 of these questions-answers are published each year. For many years the majority of questions were on dermatologic problems but during 1957 there was a definite shift to questions on various phases of diet and nutrition.

Material appearing in the "Question and Answer" section provided doctors with the most recent information on some subject that was an actual problem for a doctor. Naturally, the physician-reader still must formulate his own opinions about the stated problem, keeping in mind his knowledge of a particular patient.

NEW PLACEMENT AID

A new throw-away leaflet—"Look Before You Leap"—is being produced by the AMA's Physicians Placement Service as a check list for physicians seeking a location. Since many physicians still apparently are not aware of the placement services available to them through their state medical associations and the American Medical Association, this leaflet will be distributed in adequate supplies to state societies, hospitals and medical schools.

ANNUAL MEETING IN JUNE

Between 12,000 and 15,000 physicians will journey westward in June in search of something far more valuable than gold. They'll be on a quest for the latest information on new medical techniques and discoveries at the American Medical Association's 107th Annual Meeting in San Francisco. The five days of June 23-27 will be filled with bright nuggets—including scientific exhibits, lectures, motion pictures, panel discussions, televised surgical procedures and commercial exhibits. Convenient center for the Scientific and Technical Exhibits, films, color TV and lectures will be the Civic Auditorium, the adjacent new Plaza Exhibit Hall and other surrounding buildings. Headquarters for the House of Delegates sessions will be the Sheraton-Palace Hotel.

Plans for an outstanding scientific lecture program are being completed by the Council on Scientific Assembly. Opening the general scientific program Monday afternoon, June 23, will be a symposium on the care of the severely injured patient. Tuesday morning's general meeting will feature another symposium on hazards associated with therapeutic agents. Formal scientific section meetings will run from Tuesday afternoon through Friday morning.

Special panel discussions and demonstrations are being planned throughout the meeting, including: perinatal problems; methods of resuscitation of infants; nutrition; physical examination of physicians, using electrocardiograms and chest x-rays; fresh tissue pathology, and treatment of fractures. The Section on Miscellaneous Topics also is planning sessions on allergy, prevention of traffic accidents, prevention of injury in sports, and medical professional liability. Other features will be a color television program of live operations and demonstrations from San Francisco Hospital and a varied motion picture program.

Two high school winners of AMA scientific awards at the National Science Fair again will display their prize exhibits. In addition, the top winners of the intern-resident and medical student exhibit classifications at the Student AMA convention this spring will be invited for the first time to exhibit at an AMA meeting.

Registration officially opens at the new Plaza Exhibit Hall Monday, June 23, at 8:30 a.m. and closes Friday noon. Advance registrations will be accepted Sunday, June 22, from 12 noon to 4:00 p.m. The Scientific and Technical Exhibits will be open to AMA physician-members *only* on Tuesday and Wednesday mornings.

Plan now to attend this worthwhile medical meeting. Watch for further details in *The Journal of the AMA*.

HATS OFF TO AUXILIARY CHAMPIONS

Winners of the 1957 Woman's Auxiliary *Today's Health* Christmas gift subscription contest recently were announced as follows: Group I—Greenwood-Woodson counties, Kan., Mrs. Harry A. West, president, Mrs. Robert L. Obourn, T. H. chairman; group II—Indiana county, Penna., Mrs. Frederick Dills, president, Mrs. Leonard Volkin. T. H. chairman; group III—Ohio county, W. Va., Mrs. Earl S. Phillips, president, Mrs. Robert W. Leibold, T. H. chairman; group IV—Cook county, Illinois, Mrs. Richard E. Westland, president, Mrs. Mitchell A. Spellberg, T. H. chairman. Ten dollar checks have been sent to the presidents of these four winning local auxiliaries. Special recognition for their outstanding efforts will be given at the *Today's Health* workshop during the Woman's Auxiliary annual convention in June in San Francisco.

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The Pursuit of the Unorthodox

Some Observations on Certain Forms of Cancer Therapy

By L. H. Garland, M.B.
San Francisco, California

DUE, in part, to reports concerning the increasing prevalence of cancer, and to the acceleration of communication throughout the United States, the promoters of cancer remedies have recently become more active than ever before. There is hardly a day that does not bring to the headquarters of the various organizations dealing with cancer, an inquiry from an anxious patient concerning the merits of a proprietary remedy for cancer of which she (or he) has heard, and upon which she is ready to pin the shreds of a vanishing hope, if only she can find authority for doing so.

The confidence which seems to be instinctive in most people to heed anyone who makes a firm assertion of authority, coupled with the natural preference for medical over surgical or radiological treatment, lies at the basis of the extensive business which is being done throughout the country by the successful promoters of cancer cures. There appear to be more irresponsible persons in the cancer field than in any other. Their number in the United States is great, perhaps 4,000, and their influence extends into every town and hamlet. There are even charlatan hospitals with complete staffs, large buildings, and every appearance of sound fiscal backing. There are innumerable practitioners who do what may be called a small retail business. Finally, there are concerns which manufacture and supply cancer cures upon a mail order basis.

The claims of the charlatans are heard and heeded not only by people who have no knowledge of medical subject, but unfortunately, by not a few licensed physicians. These doctors use such "cures" in their practice, just as they buy and use scores of other proprietary medicines whose sales depends upon the clever manner in which they are advertised.

The suppression of such frauds is difficult. It is hard to prove that some materials are without slight beneficial effects, at least psychologic. Failure to secure prompt and adequate punishment of offenders may be turned greatly to their advantage, legal suits sometimes ending up as advertisements for their pretensions. The organized medical profession, more than any other group, has attempted to disseminate information on charlatary and protect the public from its evils.

The above words are taken almost verbatim from a report published thirty-four years ago by the American Society for the Control of Cancer. Today, over a third of a century later, they are still applicable.

Perspective

Quackery might be described as the world's second oldest profession. It is certainly as old as recorded history. The public has understand-

Dr. Garland is Clinical Professor of Radiology, Stanford University Medical School; Radiologist, St. Joseph's Hospital, San Francisco.

Presented at the Michigan Clinical Institute, Detroit, March 15, 1957.

able difficulty, at times, in distinguishing the orthodox from the unorthodox practitioner. After all, for many centuries the skin of the snake was accorded great medicinal virtue, and herbs, roots and decoctions were assigned magical properties. Sacrifices of animals were prescribed by apparently competent medical men. Even Socrates, after drinking the bowl of hemlock, asked a friend to sacrifice a cock to Aesculapius . . . perhaps to assure his survival to another dawn, or perhaps to impart to destiny the last thrust of a cynic.

In the dark ages, strolling quacks (tooth-drawers, uroscopists, rope-dancers, crystal-gazers and so forth) were a favorite theme of artists. Some of these pretended to cut stones from the head for the relief of insanity and I presume brain tumors. The therapeutic imposture consisted in making a superficial incision in the scalp and palming stones which were cast into a convenient receptacle at stated intervals during the patient's struggles. The trick is shown in a painting by Hieronymus Bosch, dated about 1500.

By the eighteenth century, quackery was regarded by Thoreau as universally successful, and uncommonly profitable. "Rolling stones, like Cagliostro, and Mesmer, managed to ply their trade for a long while without interruption. Casanova paid a decorous visit to Haller at Bern, and his stay with the great man was supposed to be not so much "the homage which vice pays to virtue" as a manifestation of genuine esteem, for Casanova not only affected to enjoy the commerce of the learned, but had written Latin dissertations or had some one write them for him. In England, there was a long line of successful medical charlatans of both sexes. The earliest of these was Sir William Read, who started out as a tailor, but in 1694 set up in the Strand as an oculist, having hired some one to write a book on eye diseases under his name, and a Grub Street poet to praise him in verse.

The tendency to consult charlatans is analagous to the physician's liability to consult wildcat stock brokers. Some of the most responsible physicians will always be in the hands of financial fakers, and, according to Robert Morris, some of the most responsible businessmen in the hands of medical fakers. They are as irresistible as fortune tellers.

The British Medical Journal devoted a whole number to the exposure of quackery in 1911. Like its American counterpart, the British Medical Association has been one of the few organizations to make serious attempts to take up the cudgels on behalf of the public in opposition to quackery.

In a monograph entitled "The New Medical Follies" Dr. Morris Fishbein[8] described two of the characters on the American scene in the early part of the current century, named Rogers and de Collard.

L. D. Rogers was once the head and chief owner of the National Medical University of Chicago (virtually a diploma mill). He developed a cancer serum and organized the American Cancer Research Society, with none other than L. D. Rogers as president. His autohemic therapy consisted of giving the patient a solution made by "attenuating, hemolizing, incubating and potentizing" a few drops of his or her own blood, and administering it according to a refined technique developed by himself. He advertised mail order courses for other physicians to the tune of $100, wrote a book called "Autohemic Therapy," and organized the Autohemic Practitioners.

Arthur de Collard went one step better. He turned up in Richmond, Virginia, in 1918 and persuaded the Legislature to license him to practice Poropathy. He claimed to be a cousin of Napoleon and a graduate of several European universities, but unfortunately all of his diplomas had been accidentally burned. The bill defined poropathy and manipulative surgery as a new branch of therapeutics, by which innumerable diseases, including internal cancer, could be cured. By 1927 there were several Poropathists in the State of Virginia who had taken the course under de Collard.

One of the most astounding cancer quacks of Western America is described by Dr. Hans Barkan[1] in his historical sketch of Cooper Medical College (the precursor of Stanford University Medical School) as follows:

> "Certainly the most picturesque, even though later the most unsavory character in the faculty was Albert Abrams (1863-1924). Born in San Francisco, graduated in Heidelberg at nineteen, and in Cooper Medical College in 1883, precocious, of facile pen, of exceptional intelligence and productivity and of consuming ambition, he taught internal medicine and held the rank of professor of pathology from 1893 to 1898. His publications were numerous; his 'Diseases of the Heart' held the ranking place in textbooks on that subject. His outstanding contribution was perhaps his demonstration of the value of the x-ray in cardiac diagnosis. . . . In 1916 he presented

his new concepts in 'Diagnosis and Treatment; Physiochemical Medicine' and founded the *Journal of Electronic Medicine,* himself editing the first six volumes.

"The diagnostic technique consisted in placing a drop of the patient's blood in a box called a 'dynamizer' containing a 'jungle of wires, batteries and a rheostat.' The dynamizer was provided with an electrode which was placed on the forehead of a healthy subject—often this was his chauffeur—facing west in a dim light. From areas of dullness elicited by percussion of the healthy subject's abdomen, Abrams attained the diagnosis of either disease or religion. If this sounds absurd, consider the therapeusis of sympathetic vibrations supplied from another box, the oscilloclast; as adjuvants, vividly colored ointments supposedly of a certain radio activity were smeared over the patient's abdomen. The oscilloclast was rented to all comers, physicians and others, at $200 or $250, plus monthly payments of $5 for each machine. It was not sold—only leased—with a definite understanding that the machine was not to be opened by the lessee. In a few pages of eulogy by Upton Sinclair, one reads: 'The average charge is about $200 for a guaranteed cure of such diseases as syphilis, tuberculosis, cancer and sarcoma.' *The Scientific American,* after a year's investigation, concluded: 'At best it is an illusion; at worst, it is a colossal fraud.'

"At the height of the controversy, Abrams died a rich man in 1924. Harris, in 'The California Medical Story,' sums him up as: 'A tangential colleague possessing the boastfulness of Parecelsus, the self-deception of the alchemist, and the alertness, tenacity, and ruthless of the robber barons. The observing neurologists, thinking of his fixity of ideas, expanded ego and colored salves placed him among the mentally deranged.' "

The Menace of the Charlatan

From the above cursory review it is apparent that quacks are as old as human nature and as widespread as mankind. They vary from age to age like clothing fashions. Are they more of a menace today than previously? It seems to me that they are, because of the currently improved outlook for both the early and late case of cancer in the light of modern surgery, radiotherapy and chemotherapy.[9] Their menace might be summed up as follows:

1. The unorthodox practitioner accepts patients with curable cancer and uses worthless remedies on them until the cancer becoms incurable. Not only is this evil in itself; it has the secondary effect of increasing the public's fear of cancer because of the evidence of one more uncured case.

2. On patients with late cancer, the quack often uses methods far less effective to control the disease and make life comfortable than are available by the use of orthodox methods.

3. Quacks often exhaust the earnings and savings of those in limited circumstances, without according any benefit.

4. A few quacks cause diversion of large amounts of public and private money from the support of responsible cancer research.

Recognition of the Charlatan

Inasmuch as charlatans are found both inside and outside the medical profession, recognition is not always simple. Some quacks are unquestionably sincere; more give the semblance of sincerity. A common pattern is that of a lay person who has tried a remedy in one or two cases of alleged cancer and who believes he has found apparently good results. He spreads his results by word of mouth or by testimonial. He is often careful, at least initially, not to make written claims of a cancer cure. He will tell the press and radio audience that orthodox physicians are fearful they will lose their incomes from the surgical or radiotherapeutic care of cancer patients, and for that reason are opposed to his new method. If prosecuted, he will allege that the "medical trust" is against him, and that another Pasteur is being victimized.

A classical example of the evasive technique used by these persons is as follows. Mr. Hoxsey, a cancer clinic operator, had requested an evaluation by the National Cancer Institute of his therapy.[12] The Institute asked him to submit at least fifty records of patients with internal cancer, diagnosed by a competent pathologist, and with a survival of at least five years after treatment. Sixty case records were received, of which only nineteen were internal "cancers." Of these, only five had biopsy records, and none of these could be confirmed as cancer on examination at the Institute. The sixty case records were composed of forty alleged external cancer, nineteen of internal cancer and one of site unmentioned. The external cancers had biopsy data on only fifteen; the available slides showed no squamous cell lesions or melanomas; there were apparently a few basal cell carcinomas. In summary, two-thirds of the "cancers" had no biopsy at all; many of those which did have biopsy were not validated as cancer by the pathologist.

Recognition of the charlatan is aided by noting the following:

1. His treatment is usually secret, or the meth-

od of preparation is secret or it is available only from himself.

2. He uses advertising, planted stories or "testimonials" to support his claims—not reports in current, reputable scientific journals.

3. He often uses the name of a high-sounding research organization or foundation.

4. He discourages or refuses consultation with reputable local physicians, claiming that the "medical trust" is against him.

5. His records are scanty or nonexistent.

6. Many of his "cured" cases have no evidence of having had cancer when he treated them. He discounts biopsy verification.

7. His chief supporters may be very distinguished statesmen, actors, writers or lawyers—but not persons trained or experienced in the natural history or care of patients with cancer.

8. Following representations by the press or by legal authorities, he usually promises to make some of his agent available to an official health agency or medical commission for adequate trial. But he seldom delivers the promised drug or drugs, making a series of excuses such as the fact that there is great expense in producing the drug, or a lack of supplies of the basic ingredients at the moment, or a lack of packing facilities and so forth. If and when it becomes finally available, the method of administering the drug becomes complex and so personalized that virtually only the proponent can administer it effectively.

Such is the picture of the "average" cancer charlatan with whom we are familiar. Needless to say, the spectrum is disturbingly broad. At one end are rather reputable members of the medical profession who are simply misguided or uninformed on cancer therapy and who do not make a habit of seeking out cancer cases nor charge exorbitant fees for the rather useless remedy they use. At the other end, are the ghouls who operate an assembly line clinic, using methods they know to be useless and charging inordinate fees. The gross annual income of some of the latter is in excess of a million dollars; the harm they do to curable cases is incalculable.

What of the physician who uses orthodox methods but in an incompetent fashion? For example, the surgeon who removes only part of an excisable tumor, the radiologist who gives only part of the tolerable and necessary cancerocidal dose of irradiation, the internist who uses a "little" hormone or chemotherapy (when adequate dosage might mean the difference between short and long survival)? These men are sometimes called quacks by their brethern. They are not, in the strict sense of the word. They are the incompetent or conscienceless fringe which unfortunately exists in every profession. The public can avoid them only by using thought, diligence and consultation.

Investigation of Remedies

Aroused by some of the more recent developments in California, the Cancer Commission of the California Medical Association[17] undertook in 1952 to investigate certain unorthodox cancer treatments which were gaining mounting publicity in that state. The Commission functions as a body of eighteen members, all practicing physicians, most with considerable clinical experience in cancer work and many on the teaching staffs of the local medical schools.

The Commission first prepared a carefully worded "Statement on Cancer Treatment" and issued such to over 700 newspapers and other public media in California. It invited the proponent of any treatment for cancer to submit the method of treatment, with proper documentation, for adequate trial by responsible impartial investigators—with the understanding that the results of such tests, whether favorable or unfavorable, would become a matter or record. In other words, persons who believed that they had a new or better method of treating cancer were invited to submit their method for examination by qualified persons. This statement and the covering letter have been accepted for publication in a monograph (American Cancer Society, New York).

Since 1952, the Cancer Commission has completed studies in connection with three alleged cancer remedies and the results have been published in the official Journal of the California Medical Association *(California Medicine)*. In these studies, the Commission co-operated with and was aided by the Bureau of Investigation of the American Medical Association, the Federal and State Food and Drug Administration, and the Committee on Cancer Diagnosis and Therapy of the National Research Council.

As soon as the facts were established concerning these alleged cancer remedies, the Commission made available suitable report to the science

writers of press and radio, and to the branches of the California Division of the American Cancer Society.

In performing each of its investigations, the Commission has taken the following series of steps:

1. *Ascertain the precise nature of the treatment method.*—Frequently the method turns out to be an old one with a new name. For example, the Hepasyn treatment for cancer turned out to be Arginase (which had been previously investigated and unfortunately found ineffective). Sometimes the nature of the treatment method is shrouded in mystery. It took quite a few months to find out that the material from which Dr. Gregory made his cancer treatment, Gregomycin, came from a mold in his back garden. The precise method of administering the drug, the dosage, the intervals, the side-effects and so forth are elucidated as fully as possible, both by conferences at the local level and much correspondence.

When we prepared to call on the proponents of the Laetrile cancer remedy (made by the John Beard Memorial Foundation) we found to our astonishment that there were *two* John Beard Memorial Foundations, at two different addresses in San Francisco. The Foundations were not connected! The peripherally-located one housed our researcher; his laboratory consisted essentially of a small quonset hut in the back yard of a private house in which a vast number of empty ampules lay waiting to be filled with the chemical.

2. *Interview the proponents and review their scientific background.*—It is sometimes difficult to secure personal interviews, but they have been obtained. It is usually simple to ascertain the scientific background and the record of previous publications. Every effort is made to give the proponents full opportunity to present all available facts.

3. *Examine the experimental evidence offered by the proponents.*—This is not always easy; indeed, the amount of experimental evidence is often remarkably scant. All too often the "numerous laboratory animals" turn out to be a few mice or a solitary guinea pig. One of the researchers we called upon told us that he had a method for producing transplantable adenocarcinoma of the large bowel in dogs; we were particularly interested in seeing this, but unfortunately the dogs were unavailable at the time of our visit; and the technique not written down anywhere. The experimental animal proves often to be ectoplasmic.

4. *Examine the clinical evidence offered by the proponent.*—An attempt is made, with the permission and co-operation of the proponent and the persons involved, to see and examine treated patients, to review the microscopic slides, the radiographs and other objective evidence, and if necessary, to make fresh sections from the blocks removed. All too often there is no microscopic tissue available. When it is available, it is often found that the entire tumor has been removed surgically or destroyed radiologically prior to inception of the cancer treatment method in question. An attempt is made to have at least one well qualified surgeon, radiologist *and* pathologist at such review sessions. (The Commission has been fortunate in having Dr. Ian Macdonald, clinical professor of surgery at the University of Southern California, and Dr. David Wood, professor of pathology at the University of California available for continuing consultations.)

5. *Examine the autopsy data of the proponent.*—(If any is available.)

6. *Secure some of the drug for analysis and trial on experimental animals.*—This proves much more difficult in practice than in theory. However, means are usually found to secure enough for at least initial laboratory analysis. Disillusioned former clients of the healer have cooperated in securing some of the material for examination. The laboratories and departments of chemistry of some of the universities in California have been very helpful in performing necessary tests.

7. *Treat a small number of patients* (persons beyond reasonable hope of control by established surgical or radiotherapeutic methods).

8. *Examine the autopsy data if any,* on patients treated under the auspices of the Commission or otherwise.

9. *Consult with other investigating groups and research workers.*

10. *Following these steps the evidence is summarized and reviewed by the Commission.*—A report is prepared, cleared through legal counsel for the State Medical Association, and offered to the *State Medical Journal* for publication. If and when published, copies are transmitted to the American Cancer Society (and its branches), to science writers and to other interested persons.

Steps to Reduce Charlatanism

The members of the medical profession who belong to the American Medical Association have supported the Bureau of Investigation and the Committee on Research of that organization for many years (the former now for half a century). The Bureau has compiled data on countless cancer frauds and worthless treatment methods, provided chemical analyses of hundreds of cancer drugs and remedies, and aided Federal and State bodies in exposing charlatans. But that is not enough to cope with the hydra of cancer charlatanism. It needs nine times ninety arms in the different parts of the country to keep pace with the sprouting heads. Some of those arms could be state or regional cancer commissions.[17]

A Cancer Commission could, at the state or local level, investigate new or notorious cancer remedies, publish their findings and proceed according to the facts ascertained. If something apparently worthwhile materializes, the profession will be the first to study it—as it did in the case of insulin, the sulfa drugs, penicillin and other now-established agents. If, on the other hand, nothing worthwhile is disclosed, then the profession and the public should be informed. If members of organized medicine are reported to practice quacksalverism (that is, they continue to use for regular clinical cancer treatment, methods found by impartial study to be worthless for that purpose), they should desist, and, failing compliance, should be asked to appear before properly constituted committees of their county medical society to show cause why their membership should not be suspended or terminated in the public interest. The kernels of this aspect of the problem are an actively functioning cancer commission (to establish facts), and a courageous local medical body (to take action on members who are defrauding the public). In the case of physicians outside the ranks of the medical society, it would seem that the state licensing body or state board of medical examiners should evolve a mechanism for effective action.

If and when the medical profession takes steps to correct the situation in its own membership, it can then with reason request members of other healing-arts groups (such as osteopaths) to do likewise. Finally, it can go to the press, radio and television agencies with the documented facts on these efforts at public protection and request those bodies to lend their aid . . . so that quackery in non-professional spheres, that is, by laymen and cultists, may be curbed or reduced. The public needs and deserves frequent reminders that thorough scientific investigation of many cancer nostrums *has* been made—unfortunately without yet uncovering a more effective treatment for cancer than those already known.

In our own state, in a small way, we have made a few strides. As a result, at least three potential cancer cures have been deflated. In addition, one large Los Angeles daily newspaper rejected lucrative full-page testimonial advertisements from a notorious Colorado cancer clinic; at least one large broadcast service refused to relay a "planted" quack cancer-cure story; two worthless cures failed to obtain tentatively assigned research grants running into six figures; two members of organized medicine have been censured. And, on the positive side, we have succeeded (as have other states) in getting many press, radio and television releases on what the public should know and do to avoid falling into the hands of cancer quacks.

The public needs to be shown, as well as told. Science writers might agree to take the considered reports of the local cancer commission on a given cancer remedy and "show" step by step in lay language the type of investigation made and results. If there is a shred of hope in the proposed treatment method, the medical profession will have been the first to make further studies. In making public reports of quack remedies, it is usually advisable to omit the name of the proponent, because the very announcement has the effect of advertisement; however, the name of the remedy may be issued. One needs a delicate balance between notification and identification to effectuate the constructive action desired.

At the national level, in addition to the Bureau of Investigation of the American Medical Association, there is the Food and Drug Administra-

tion,[12,14] the National Cancer Institute and a recently formed Committee on Quackery of the American Cancer Society. These bodies all help in various important ways to investigate and report on differing phases of this repetitive problem; the F.D.A. aids in prosecuting certain offenders. Finally, there are the files of a group of physicians and scientists who functioned as an impartial board of experts to review, advise on and, if necessary, sponsor investigations of reported new methods of diagnosis and treatment. Known as the Committee on Cancer Diagnosis and Therapy of the National Research Council, the group was sponsored by the National Cancer Institute, the American Cancer Society, the American Medical Association, the Food and Drug Administration and others. It reported the results of its investigations to the sponsoring agencies. Its files are cared for by the American Cancer Society.

Some Current "Remedies"

The following current unproved or unorthodox cancer treatments will be briefly illustrated.†

Summary

History is veined with cancer charlatanism. Unorthodox and unproven methods of cancer therapy are still in extensive use today. The background of such therapy is one of unawareness or fear on the part of the patient, and ignorance or avarice on the part of the "healer." Its ultimate control is a problem of mass information—that many types of localized cancer are curable, and that medical research offers much hope for other types.

Wider understanding of the immediate situation by medical educators should lead to better instruction of physicians and some reduction in the extent of charlatanism.

In the past, the local medical profession has tended to rely on some distant agency (such as the Bureau of the A.M.A. or the Federal Food and Drug Authority) to investigate and report on local or regional cancer cures; it is suggested that such work can often be performed more effectively and speedily by a functioning state cancer commission.

It is therefore believed that regional or state cancer commissions should (where they have not already done so) develop facilities for making careful investigations of locally developing cancer treatment methods which are claimed to cure or control internal cancers or which have gained some notoriety.

Having made such tests, the commission should keep the profession and science news writers informed of the results, and of its other activities on behalf of the public.

Examples are mentioned of careful investigations of a few current cancer remedies, and of the beneficial results ensuing therefrom.

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†The author showed lantern slides dealing with: (1) the Hoxsey treatment, (2) Koch treatment, (3) Krebiozen, (4) Lincoln (Bacteriophage), (5) Spears, (6) Savannah.

Selected examples of the following were also illustrated: Adrenal cortex extract, Arginase, Electronic Medical Foundation, Gregomycin, Hett (cancer serum), Institute of Applied Biology, Laetriles, Mucorhicin, Rife-Ray.

The Diagnosis and Treatment of the Less Obvious Carcinomas of the Thyroid

By Theodore Winship, M.D.
and Randi V. Rosvoll, M.D.
Washington, D. C.

THE DIAGNOSIS of thyroid carcinoma is often difficult to establish and when the primary tumor is small the difficulties are increased. The term "less obvious carcinoma" almost restricts this discussion to the consideration of the malignant tumors measuring less than 2 cm. in diameter. Approximately 18 per cent of thyroid cancers in our series fall into this category.

The small papillary carcinomas constitute by far the greatest majority of less obvious carcinomas. In a series of papillary cancers reported by Frazell and Foote, 15 per cent measured less than 1 centimeter.[2] They usually appear as firm, ill-defined gray nodules which may be mistaken clinically for adenomas. Characteristically, these tumors grow slowly and as a rule metastasize first to the cervical lymph nodes. Another type of less obvious carcinoma is the occult sclerosing carcinoma. These were originally described as benign tumors by Graham[4] and were later named nonencapsulated sclerosing tumors by Hazard, Crile and Dempsey.[5] Recently they were identified as small sclerosing papillary and follicular carcinomas and metastases were present in 30 per cent of the patients (Fig. 1). Occult sclerosing carcinomas measure less than 1 cm. and appear as small scars at or near the surface of the gland.[6] Follicular and undifferentiated thyroid cancers are occasionally small when discovered and would qualify as a less obvious carcinoma, but characteristically both types are bulky tumors.

There are five situations in which the less obvious carconimas may cause problems in therapy.

1. *Sometimes metastatic thyroid carcinoma appears in the cervical lymph nodes without a palpable primary tumor in the thyroid gland.*—This was true in 30 per cent of 334 cases of childhood thyroid carcinoma.[10] Enlarged persistent painless cervical nodes usually represent some other disease such as tuberculosis in the young or metastatic carcinoma from the head or neck region in older patients. When after careful investigation no cause is found for the adenopathy, a lymph node must be excised for diagnosis. The node should be submitted for frozen section and if found to contain thyroid tissue, a total thyroidectomy and neck dissection in continuity should be performed immediately. An unusual example of this type of lesion is presented.

Report of Cases

Case 1.—A white woman, aged forty-six, was admitted to the hospital complaining of a painless mass in her neck which had been slowly enlarging since its discovery five months previously. She had consulted her family physician about the nodule but had been advised not to bother it unless it bothered her. A neighbor's son, a senior medical student, recommended that the mass be removed for diagnosis. Physical examination revealed a firm, painless movable 4 cm. nodule in the mid-jugular region of the left neck. The thyroid gland was small, firm and smooth. The day after admission the nodule in the left neck was removed and submitted for frozen section. A diagnosis of metastatic thyroid carcinoma was established and a total thyroidectomy and left radical neck dissection were performed.

Multiple sections through the thyroid gland showed homogeneous, reddish-brown thyroid tissue without evidence of carcinoma, whereupon the entire thyroid gland was cut into blocks and embedded. All the paraffin sections of the thyroid gland showed normal thyroid tissue except one which contained a papillary carcinoma measuring 0.7 mm. (Fig. 2). Ten of the twenty lymph nodes in the neck dissection contained metastatic carcinoma.

Many other small tumors have been encountered but so far as can be determined this is the smallest ever reported to have produced metastases.

2. *When there is a nodule in the thyroid gland in the absence of palpable cervical lymph nodes.*—This is by far the most common situation. The

From the Department of Pathology, Garfield Memorial Hospital, Washington, D. C.

Presented at the 92nd Annual Session of the Michigan State Medical Society, Grand Rapids, September 26, 1957.



Fig. 1. An example of occult sclerosing carcinoma.

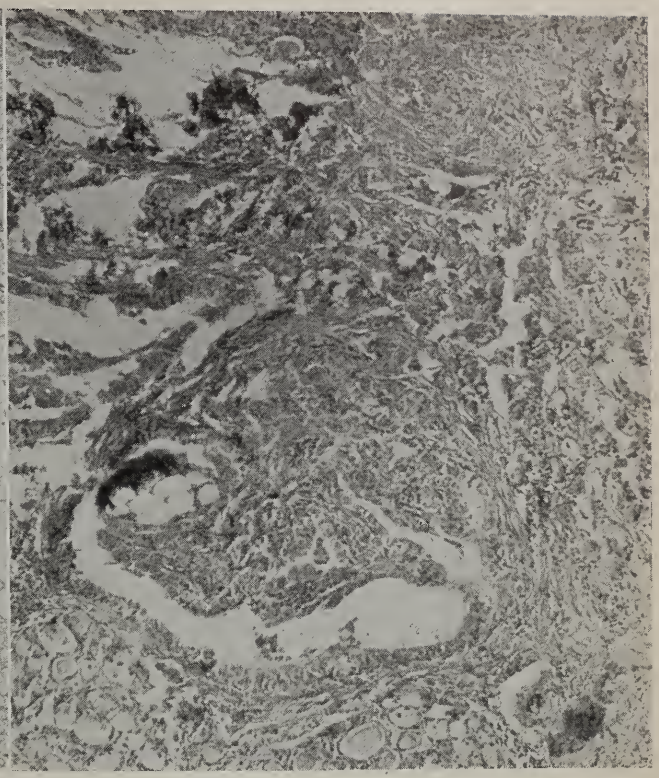


Fig. 2. Primary thyroid carcinoma in *Case 1* (measuring 0.7 mm.). This produced metastatic carcinoma in the cervical lymph nodes measuring 4 cm.

difficulty in making a pre-operative diagnosis of thyroid carcinoma depends upon training, clinical judgment and experience. Most surgeons admit that their accuracy is less than 75 per cent. Since small single nodules are removed only because of their possible malignancy a lobectomy should be performed and the specimen submitted for frozen section. If the lobe contains carcinoma, a total thyroidectomy should be performed immediately. If no enlarged lymph nodes are found during the surgical procedure nothing more should be done except for frequent follow-up examinations.

A case illustrating this type of lesion is presented.

Case 2.—A white woman, aged twenty-seven, was admitted for the investigation of a symptomless nodule in the thyroid gland. The nodule was discovered by her obstetrician when she was four months pregnant. She was delivered of a live male infant two months prior to admission. Although there had been slight enlargement of the thyroid gland during her pregnancy, no change had been noticed in the thyroid nodule. Following delivery, the gland had receded but the nodule was still palpable. Physical examination revealed a 1.5 cm. firm, nodule in the lower pole of the right thyroid lobe. At operation a right lobectomy was performed. A frozen section diagnosis of carcinoma was made and a total thyroidectomy was performed. Permanent sections showed a papillary carcinoma measuring 1.4 cm. in diameter in the right lobe. She has now been followed for five years and shows no evidence of disease.

Thyroid carcinoma associated with pregnancy is not uncommon since it is a disease frequently found in young women. Many of the patients with thyroid carcinoma discovered in childhood have subsequently married and have had children. Some of them are known to have residual carcinoma. Growth acceleration of the tumor has not been noted in any of these patients during pregnancy or lactation.

3. *When a thyroid nodule and enlarged cervical lymph nodes are both present.*—In this situation the decision to operate is made more easily than when there is no adenopathy. Few physicians will elect to "watch" a patient when there is clinical evidence of metastasis. The recommended procedure in this instance is lobectomy and a request for frozen section. If thyroid carcinoma is found, a total thyroidectomy is performed and a cervical lymph node is excised for

frozen section. If the node also contains carcinoma a radical neck dissection should follow.

4. *Rarely a nodule may present centrally in the isthmus, the pyramidal lobe or in the medial portion of either lobe.*—Resection in such a case should include the pyramidal lobe, the isthmus and a generous portion of normal thyroid tissue surrounding the tumor. When frozen section shows carcinoma, a total thyroidectomy is again indicated. Metastases from a mid-line lesion may appear in either side of the neck or both. If histologically-positive lymph nodes are present in one side, an immediate radical neck dissection is indicated. If metastatic carcinoma is present in both sides, one side of the neck is dissected at the time of initial surgery. This is followed in several weeks by a dissection of the contralateral side since considerable morbidity is usually associated with simultaneous bilateral neck dissections.

5. *A fifth type of less obvious carcinoma is the small unsuspected tumor found by the pathologist during the examination of a nontoxic nodular goiter.* The recommendation for a patient with bilateral multiple thyroid nodules is subtotal thyroidectomy. If such a procedure has been carried out, no further treatment is indicated after discovery of a small carcinoma. Such patients should be followed closely for at least ten years.

Discussion

During the past decade, the incidence of thyroid carcinoma in the United States has shown a marked increase. According to statistics from the New York State Department of Health, the incidence has doubled during the period 1940 to 1950 as compared to the previous decade. Similar data have been reported by numerous other investigators.[9,12] The increase has been mainly in the cancers which are less obvious. In the past, small cancers were often neglected or misdiagnosed. As a result, the majority of thyroid cancers excised were the large, far advanced tumors. Several factors are responsible for the increased incidence. Perhaps the most important is the reduction of surgically-treated nodular goiters in this country which has resulted in a relative increase in the number of thyroid cancers. The increased incidence reflects the growing tendency to investigate thyroid nodules and to excise, for diagnosis, unexplained persistent enlarged painless cervical lymph nodes in patients of all ages. Another factor responsible for the increased incidence is the better recognition of the disease by pathologists. Twenty-five years ago, most papillary tumors were considered to be benign, but clinical experience has proved them to be malignant and capable of metastasis.

Through the courtesy of certain physicians in several large clinics it has been possible to study many cases of thyroid carcinoma. These, in addition to the tissue slides on 202 collected childhood thyroid cancers and our own material, comprised 1,148 cases of thyroid carcinoma. The cases were classified in order of increasing malignancy as shown in Table I.

TABLE I. PATHOLOGIC TYPES OF THYROID CARCINOMA

TYPE	NUMBER	PER CENT
Papillary	788	62
Follicular	253	22
Undifferentiated	107	18
TOTAL	1,148	100

To avoid the use of a complicated classification which would be of no clinical importance, cases are grouped in three basic categories. The papillary category includes the rare, pure papillary carcinoma and also the more numerous mixed papillary and follicular carcinoma. The type designated as follicular represents those thyroid cancers composed solely of malignant follicles either empty or containing colloid. The undifferentiated group consists of the tumors which are neither papillary nor follicular in nature, the most common cell types being the spindle and giant cell carcinomas and the solid small-cell carcinomas.

Thyroid cancers differ from other types of cancer in that the majority are composed of at least two cell types. Cases occur in which three or even four distinct types can be identified if multiple sections are examined. This is the reason that special operations devised solely for the treatment of papillary carcinoma are illogical and unrealistic.

The treatment of patients with thyroid carcinoma is controversial. Disputes often arise over data based on clinically single or multiple thyroid nodules and their malignant potentialities. The clinical distinction between single and multiple nodules is often difficult and frequently inaccurate. More than 40 per cent of the clinically single

nodules in the thyroid gland on gross examination prove to be multiple. Discussions often arise concerning the percentage of carcinoma in nodular goiters and single nodules. Statistics vary so greatly regarding these findings that a definite figure cannot be given. The recommendation of surgery for thyroid nodules depends upon one's training, geographic location and philosophy of carcinoma.

While it is obvious that treatment must be individualized, the recommendation made by Ward[7] remains sound and justified. He stated that all thyroid nodules in men and children and all single nodules in women should be removed. The removal of a nodule infers lobectomy. Frazell[9] found residual carcinoma in approximately 50 per cent of the glands of referred patients after the original surgeon had enucleated an "adenoma." An enucleation or a wedge resection is in Crile's words "the most pernicious thing that a surgeon can do."[9]

After a diagnosis of carcinoma has been established, total thyroidectomy should be performed. This recommendation is based on three premises: (1) Intrathyroidal spread, although not common in our experience, still occurs frequently enough to justify the complete removal of the gland. (2) Multiple foci of carcinoma are said to be present in more than 10 per cent of all cases. (3) If the use of radioactive iodine is anticipated for the treatment of metastatic carcinoma it will be of little therapeutic value unless the thyroid gland has been removed. A subcapsular removal of the lobe contralateral to the carcinoma is recommended to assure the retention of adequate parathyroid tissue.

The great majority of surgeons agree that a radical neck dissection is indicated in the presence of cervical node metastasis. Some demand histological proof of metastasis while others require only clinical evidence. Frazell and Foote[2] showed that metastatic thyroid carcinoma was present in 61 per cent of clinically negative necks after proof of a primary tumor in the thyroid gland. In spite of this startling data we do not feel justified at this time in recommending a procedure routinely which will subject 39 per cent of the patients to an unnecessary operation.

The usual radical neck dissection for carcinoma includes the sternomastoid muscle. In selected cases of thyroid carcinoma in which this muscle is not involved by metastatic carcinoma it has been found that an adequate dissection can be accomplished without removing the muscle. This is of definite cosmetic value especially to young women and should be considered at the time of operation in every case.[1]

Surgeons have been skeptical about the ability of pathologists to differentiate between benign and malignant thyroid tissue in frozen sections. Most pathologists have been hesitant to accept the responsibility of making a frozen section diagnosis on tissue reputed to be difficult to handle. Learning that the procedure is successful in other institutions,[7] we began to freeze questionable thyroid lesions several years ago. To our surprise we found thyroid tissue only slightly more difficult to handle than many other types of tissue. Since that time, requests have been made for frozen section diagnosis on 170 thyroid glands. This represents 38 per cent of all the nontoxic nodular goiters removed during the past four and one half years. Twenty-four per cent of thyroids frozen were carcinoma. In seven instances a false negative report was rendered and there have been no false positive reports. This represents 95.8 per cent accuracy and indicates the reliability of the procedure. It is known that an equally good record is being maintained in several other institutions in this country.

Recent efforts to treat thyroid carcinoma medically are based on theoretical and known thyroid physiology. The inherent biological and growth variation of thyroid tumors makes the evaluation of any new therapeutic method difficult. Many years will be required to evaluate the role of dessicated thyroid in the treatment of patients with thyroid carcinoma. At the present time it appears justified in selected patients after all other recognized methods of therapy have failed.[8]

Surgically inaccessible metastatic tumor may be treated by radioactive iodine when sufficient functioning thyroid follicles are present. Probably less than 10 per cent of the metastases from less obvious carcinomas will show an uptake sufficient to be of therapeutic value. In a number of cases, disease has been controlled for several years and occasionally lung metastases have disappeared roentgenographically.

Published results of therapy show extreme variation due to selection of cases, different surgical

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Cancer in Geriatrics

By C. Howard Ross, M.D.
Ann Arbor, Michigan

DURING the past quarter of a century I have romped through life with the geriatric population. In late years I have expressed myself in medical print dealing with such subjects as "The Geriatric Personality," "Geriatric Exercise," "Geriatric Rehabilitation" and "Healthful Employment of Leisure Time."

Having traveled in such fields, it is now my peripatetic intent to wander among the geriatric citizenry who have suffered from cancer in one form or another—to declare the hard-won victories, where they were accomplished—and to philosophize on the admitted defeats without developing too laconic a leitmotif.

In every case of geriatric cancer, one must summon the forces at hand and make up his medical mind with which of the following three infinitives he will reside:

To cure,
To palliate,
To endure.

"The cure" involves complete eradication by surgery or irradiation or other means. "A cure" is also defined by the "evidence of successful removal" over a period of years, say five or ten.

"To palliate" is to live with the situation on somewhat of a compromised basis, with adjuncts of surgery, irradiation, or hormonal therapy. There is easement for the moment, or for the immediate future, but the eventual outlook becomes grave.

"To endure" implies a philosophical and medical approach to a hopeless situation.

From past experiences and from the result of consultation, I will now endeavor to make a fleeting survey of the human body, other than the central nervous system, and to select certain organs, associated with colorful personalities — in approaching the possibilities above referred to.

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The Face

A man in the ninth decade of life noticed a small indolent area on his right cheek, that bled daily following shaving. He then presented himself before a cultist who "dug the region" with a stick of lunar caustic. For a few months there was quiescence. Then he appeared in my office with a thumb-sized mass over the right zygoma of extensive basal cell carcinoma. He was immediately referred to a maxillo-facial surgeon, who performed a complete surgical extirpation, with a z-pattern of closure. There was also the assistance of radiation.

After two further years a tiny bud appeared over the scar. Further radiation therapy apparently eliminated this residual mass.

Time then passed. Coronary occlusion ended his full life after a lapse of five years. It was my opinion that he fulfilled his life's span. He was fortunate to possess a cancer that was "polite" enough to endure unsavory treatment and to respond to orthodox therapy.

The Lips

The most intimate association with cancer of the lip has had the signal honor to reside within my own body. It began with a pearly border about a crusty base at the lateral aspect of the lower lip. An occasional small fissure occurred, which healed after a fashion. As the inquisitive tongue and exploring teeth investigated the area, small shreds of flesh yielded to such an invasion. These combined factors plus positive biopsy led to an early diagnosis. The removal involved surgical and chemical cautery, without neck dissection. The passage of twenty-seven years declares a cure. However a warning must be interjected. *If the element of time has become a factor, there is little hope of recovery without lymphatic neck dissection.*

The Throat

An elderly neighbor of mine was struggling with his car, stuck in the snow. He was a merchant of

sixty years' experience. I picked him up and gave him a ride downtown to his store.

As we rode along and talked, I noticed that his usually musical voice had now become dull and husky. Upon inquiry, he stated that he had been slipping for six months. Further pointed possibilities were made. He said, "That makes two of us, including my sister. If it is a cancer, what is my next step?"

I referred him to an eminent otologist, who removed an involved vocal chord and followed with radiation therapy. Later, this man was referred to a speech therapist. He finally was able to express himself in a hoarse whisper. While he attempted no further sales work, he was very capable in his managerial assignments. He lived on for six years and apparently died of other causes than cancer.

The Tongue

A professor from the University of Michigan had reached retired status and was immediately snapped up by a small college. He made an excellent adjustment and secured much happiness in his newly-found role, which continued his active life.

After a few months' time a student said to him, "I have been watching you as you talk; there is a lump that seems to bob under the angle of your jaw, and it is getting larger each day."

A hasty visit to a local physician resulted in a careful examination with diagnosis of "carcinoma, base of tongue, with local metastases."

Surgery was not performed, but an extreme course of radiation therapy was prescribed. The lectures continued, and a cure was pronounced.

Within two years his body began to fail; his arms and legs became awkward. He finally took to his bed with advancing weakness and paralysis of the extremities.

Death, which was just around the corner, moved in quickly, nominating for a companion—terminal pneumonia.

The studies which followed sired the conclusion that the cancer had been eradicated, but the radiation required had fatally damaged the spinal cord.

Here is splashed the thought that *further research is necessitated in dealing with delicate neighboring structures in close proximity to the fields of therapy.*

The Thyroid Gland

In the medical school days "the hard palpable mass in the thyroid gland" was eternally drummed into our ears with baleful significance. In some recent months, I was examining an elderly woman who had suffered an automobile accident. There were many abrasions and contusions over the entire body. Therefore, a most careful systemic examination was made, including the palpation of the thyroid gland. A firm mass was discerned in the middle of the right lobe. It was agreed that as soon as she recovered, there should follow basal metabolism tests, blood cholesterol levels, radioactive iodine uptake test, followed by a referral to an eminent thyroid surgeon.

One day she stumbled on a step—fatal interlude—and fractured her hip. The neighbors rushed in, called the ambulance and had her admitted to a neighboring hospital, without the courtesy of informing me of my patient's plight. A moral could be written at this juncture, bearing a two-edged sword.

As the weeks passed, and the patient had not presented herself, I became alarmed and made urgent inquiry, discovering the hip episode, *ex-post-facto*. I immediately passed the word along that I feared a thyroid cancer. It was then agreed that she was in no condition for other than bone and joint surgery at that particular time. She was finally sent home.

With reports in the offing, again she experienced a dramatic change in her life. She contracted a respiratory infection, became cyanotic and all but choked to death. The thyroid gland had grown to enormous proportions, and her trachea was deeply compressed. She was rushed to our hospital and placed in an oxygen tent. The diagnoses included the following: (1) pneumonitis, (2) pulmonary embolism, (3) pulmonary edema, (4) compression of trachea, (5) compression of esophagus, (6) carcinoma of the thyroid gland, with metastases.

Her condition was desperate, indeed. In order to maintain an airway, an otologist was compelled, with permission of surgery, to incise the carcinomatous thyroid and insert a tracheotomy tube. Also a polyethylene nasal catheter permitted feeding of blended foods.

Now came the fateful decision. What of future surgery? The patient affirmed categorically that her religion would forbid blood transfusion. In

that case, the surgery department abruptly retired from the field, and she was presented to the department of roentgenology for radiation therapy. The three weeks involved were tolerated much better than we expected. The thyroid gland then decreased to about one-third of its former malignant size. The patient for a time could swallow a soft and liquid diet, but later returned to her nasal catheter feedings.

A rosette of flesh grew about the tracheotomy tube. Biopsy revealed a metaplasia of the original carcinoma. Further radiation reduced this mass, although the patient terminated her series prematurely.

Almost two years have passed since the first neoplastic hint of diagnosis was made. She can barely create audible speech and must employ penmanship for full expression of her needs. Her general bodily nutrition rose and then fell as the months passed. Her spirits, at first victorious, have now sagged. She gained a one-sided victory over the surgeons, but time and tide and prejudice have treated her nefariously.

A series of devilish circumstances encircled all possibilities for actual cure of thyroid cancer. If surgical extirpation had actually occurred in the early stages of the tumor development, the department of radiology would have found sympathy for the employment of radio-active iodine in post-operative therapy. The patient's determination to avoid blood transfusions, plus time delays, sealed her certain doom.

The Lung

Recently at Ann Arbor, the University of Michigan has instituted a geriatric program whereby all professors approaching retirement furlough may have the privilege of a complete examination and investigation of bodily systems.

One of our most healthy and vigorous citizens, without any symptoms or complaints whatsoever, was found to have an early carcinoma of the lung. Operation immediately followed. Regardless of his future, the moral holds in maintaining the slogan of early detection and eradication of cancer.

A sadder tale deals with a somewhat younger man, who suffered hemoptysis associated with pneumonia. The sputum was negative for acid-fast bacilli. Pulmonary x-ray studies revealed a subsiding pneumonia but ruled out tuberculosis and new growth. However, in a few weeks a vast hemorrhage poured from his lungs, and he died during the episode. Postmortem examination revealed extensive pulmonary carcinoma. The department of roentgenology was not convinced by reviewing its films. However, the patient was thoroughly dead. I do not recite this case from the standpoint of hopelessness, but bring it to the front to urge vigil beyond the peradventure of a doubt.

The Breast

There is much folklore associated with cancer of the breast, and I have actually observed some of its creation.

Once I was asked to make a geriatric call on a contrary sort of old lady, who snapped at me, "I have a back ache. No examination, please, just pain medicine for a back ache."

My counter-move was a complete examination, with much female sputtering in remonstrance, but withal—yielding permission on a piece-meal basis. When I arrived at the mammary level, she feigned modesty with vain attempts, clamping down with both hands, hiding the areas to be scrutinized.

I lifted one hand a mite and found a fungating cancer. Then indeed she wept in deep frustration, admitting that I was the only one to discover the secret that she had successfully hidden for three years. X-ray studies revealed numerous metastatic areas in the lungs and lumbar spine. Her back ache had indeed caught up with her.

The referring surgeon removed the foul-smelling fungating breast mass. There was palliative radiation. The trend, however, was rapidly downhill. She had sealed her own fateful outcome.

The same type of introductory experience applied to a much older individual, far into her eighties. Again the period of lesion, known only to the patient, concerned a span of three years or thereabouts before she submitted herself for investigation. Surgery and radiation were the methods of attack, in spite of the great time loss. A committee of physicians listened to my testimony, and testosterone propionate was the hormone of choice. Two successful years followed. Then one day she reached for a magazine and felt a snap in her left tibial area. She had experienced a pathological fracture, associated with metastatic bone cancer.

Radiation therapy was applied to this lesion, and her leg was placed in a simple padded trough splint, permitting physiotherapy. The fracture sight healed more or less.

After a further year, numerous cancer buds ap-

peared about her breast skin graft. Again radiation therapy and a step-up of her testosterone propionate medication came to her temporary rescue.

She did her housework from a wheel chair and smiled her way through a geriatric and neoplastic life, passing the ninety mark before death overtook her. There was happiness almost to the end.

Daily she quoted the old German proverb: "Von uns die Arbeit, Von Gott den Segen." (From us the work, from God the blessing.)

Her death was cardiac in origin, although her cancer status was always hovering in the accommodating background.

A further elderly widow in her early nineties suddenly passed a bloody urine. After a complete examination, including referral for cystoscopic study, we found a primary carcinomatous papilloma of the bladder and primary cancer nodules in both breasts. Electrical fulguration of the bladder papilloma was the treatment of choice, and no further clinical complaints were registered in this field. The surgeon in consultation refused to touch the breasts surgically. I discussed hormone therapy with a committee of physicians and with the patient. She refused the needle and accepted whatever treatment we could crowd into "three pills a day and no more!"

That left me no choice but to administer testosterone propionate by mouth, 10 mg. morning, noon and night.

In one year, I could barely palpate her mammary masses. In two years, they left only tell-tale geographical dimples. In a little over three years she had died of cardiac causes. I am not gullible enough to believe that we cured her three cancers, but at least they were submissive to our therapy and did not enjoy too liberal a suffrage at death.

On the other side of the slate, reposed a minister's widow in her mid-eighties. She requested periodic examinations. At one occasion I noticed a small nodule in her left breast. Following referral to general surgery she underwent a simple mastectomy versus the radical procedure (surgeon's choice). Five years later, there was experienced a nodular return in the line of scar. Then the patient was submitted to a radical extirpation with complete dissection of the left axillary lymph glands. However, the "too late" appellation was whispered to us by the Grim Reaper within a year.

This dear old lady had demanded that I hold her heart in my hand at autopsy, as she feared being buried alive. I fulfilled her wish to the letter. Her life was full and sweet and long in spite of breast cancer.

The Stomach

In my early practice, I met a patient in his eighties who related to me how he had "cured a cancer with gas drugs." For two years he had called regularly at a bargain counter, hovered over by an unctuous man in white, and received some mysterious nostrum that he took faithfully every hour on the hour while awake. Finally he found favor from neither food nor pill and stopped eating altogether. His family reluctantly called upon me to view this miniature of a man, emaciated to the bone and tied together with pale parchment, revealing a large firm mass in the epigastrium.

Upper gastrointestinal x-ray series revealed a narrow lumen in the stomach, the organ itself having become almost entirely carcinomatous. The end came soon with relief to his turmoil.

The forboding destruction of such a patient is drastically sealed when false medication and phantom hopes forbid an early examination.

Cancer of the stomach demands diagnosis in the primordial stages. Even then, surgery may become a heroic approach to a sad series of disaster tables. The x-ray department and the gastroscopist are the stalwarts in diagnosis. Gastrectomy remains the only hope.

We were doing the plays in New York one summer. As we poured out into Broadway at the midnight hour, I stepped into a wide open and brilliantly lighted drug emporium to make a minor purchase. There lined up ahead of me was a faltering old woman, muttering to herself. She was "skin and bones in calico," holding her stomach and complaining at a great rate to the clerk, a counter's width removed. This pompous youth, with saucy moustache, drew himself up proudly and said, "Madame, it is plain to see that you are suffering from an acidosis."

She replied, "I am? Oh, how wonderful to find someone who can help me. Now, what do I do?"

"Ah, this is simple," said the super-salesman. He busied himself behind the counter, presenting the lady with a lavender-wrapped package and barked, "Three dollars and seventy-five cents, please." There were words of mumbled thanks, and she made for the door, reciting his dicta over and over to herself.

I approached this metropolitan witch doctor and inquired, "What's wrong with me?"

He snapped back, "I would say, sir, that you are most likely a physician and incidentally a very evident eavesdropper."

In some ways he was a crafty fellow. However, by his greed he became a partner in biological crime.

My wife and I overtook the old lady and urged her to report to the outpatient clinic of Bellevue Hospital, first thing next morning. A promise was extracted. What mysteries of disaster that were unfolded, we will never know. Our fears, however, settled about the diagnosis of far-advanced carcinoma of the stomach; but again, through her own machinations, it was very probably too late.

The Small Intestine

Several years ago an elderly man in Ann Arbor was knocked down in the street by a car with bumper-belly approach. He underwent a severe abdominal cramp and shortly afterward passed a sizable quantity of blood. Emergency surgery by a competent man revealed a carcinomatous plaque of the ileum, which was hemorrhaging.

The surgery performed (during transfusion) included ample removal of the gut on both approaches to the lesion, plus careful dissection of the neighboring lymph glands. The latter were declared to be pathologically negative. The patient made an excellent recovery. He is still living.

I do not recommend the onrushing automobile as a diagnostic aid for the gut. However, in this case, the early diagnosis was obtained via violence, but excellent employment was made of the total circumstance.

The Colon

I recall vividly the case of the man with renal colic. The complaints included nausea, vomiting, pain in the right flank and bloody urine. The intravenous pyelogram revealed a small stone about to leave the right kidney. The calculus was passed in two and one-half days.

The department of genitourinary surgery discharged the patient. However, the gross vomiting was somewhat of a warning for advanced years. I, therefore, insisted he remain in the hospital for complete gastrointestinal x-ray investigation. There, in the ascending colon, was plainly visible an annular constricting lesion. Successful surgery removed this carcinoma plus contingent gut, afferent and efferent. Dissected glands were interpreted as pathologically negative. The patient lives on successfully.

Here the renal calculus was the original exciting cause for investigation in another system entirely. Our inquisitive nature merely spread to neighboring fields, where enough evidence warranted surgery, which prevented a future calamity.

A lady in her seventies underwent profound constipation, followed by almost complete obstruction. She was a Christian Scientist, refusing any suggestion of surgery but accepting gastrointestinal roentgen investigation. An annular obstructing lesion was revealed just above the cecum. After hearing me recite the story of "the dam of leaves in the gutter," she and her practitioner finally agreed to surgery.

Eighteen inches of gut fell before the scalpel of the surgeon, including involved lymph glands. She died a cardiac death soon after surgical interference, and time did not grant us proper evaluation. At least her remaining life was free from obstruction, which was a hard-won victory.

The Appendix

A man, not acutely ill, complained of some discomfort in the right lower quadrant. There was slight nausea with some rebound tenderness. The temperature was 99 degrees; the white count report was in the higher register of normal. Urinalysis revealed many bacteria in the stained sediment of the catheterized specimen, for which the patient was medicated. The consulting surgeon refused interference, nodding negativity at the abdomen and significantly at the laboratory reports. After the urinary infection had cleared up, I submitted my patient to gastrointestinal x-ray investigation. The appendix was rectro-cecal, only partially visualized and bore a doubt as to movable tenderness. In the right lower quadrant nagging discomfort remained.

The patient and I held a meeting and voted unanimously upon an elective appendectomy. This was finally performed, after some departmental skirmishing. The pathology report revealed early carcinoma of the appendix, a diagnosis far beyond my ability of discernment.

The patient was again submitted to laparotomy for lymph gland dissection, with positive metastatic report in one node only. The years have passed, and this man remains in good health.

A similar situation is now related, where roent-

gen investigation revealed a "non-functioning gall bladder." The surgeon's decision to remove this poorly functioning organ gave the pathologist "the glee point of his life." Carcinoma was found, but the patient lives on, as metastatic spread had apparently not reached the liver or other organs.

If a moral can be drawn, I would say that all means of diagnosis and all possible hunches, even though they merely border on the scientific side, must be fulfilled, when we track down cancer.

The Sigmoid Colon

Years ago I made the acquaintance of a southern gentleman of the old school. He spoke with slow precision, and western Tennessee accent dripped out with every syllable. He was an advertising man of great ability. Now, he became withered. Said he, "Give me a loin cloth and a goat, and I'll put Mahatma Mohandus Gandhi to shame!"

His eyes lost their sparkle. The bloom left his cheeks. His writing ability faltered, and he was about to lose his job. He refused an investigation, that would involve monetary values, but settled for a vitamin tonic. He then proceeded to gain fourteen pounds in as many weeks; the roses returned to his cheeks; his writing ability ascended to perfection, and instead of the "cold shoulder" he received a promotion. He declared in no uncertain tones, "No more tonic!"

I remonstrated with him, outlining his many victories. He calmed me with this remark, "So—order the God-livered bug juice."

Then he countered, "But I'm a-spillin' blood."

Now came much delayed roentgen investigation. A constricting defect was revealed in the upper sigmoid colon.

A capable surgeon performed the laparotomy; he found a carcinoma of the sigmoid with extensive glandular involvement. A colostomy was performed, and "he was sewed up to die."

The patient philosophized, "In Nashville, Tennessee, where I come from, I belong to the blue-bloods. My great uncle Jim, the best President these United States ever had, lies buried on the State House lawn. Down there I'm indeed somebody. But up in this damn-yankee country, I'm just an interestin' gut."

I began to undermine the department of roentgenology with a series of naggings and suggested with plaintive pleas that we might be facing a radio-sensitive neoplasm. The roentgenologist, in one of his weakest moments, agreed to therapy.

The colostomy closed of itself. Health and vigor were enjoyed again. Fourteen years passed by, and then death followed a repetition of the old lesion. However, the patient lived from his sixties into his seventies and completed the education of his family, to say nothing of becoming the chief welcomer to the third generation.

Apparently this lesion was radio-sensitive for years but not for life. Here palliation was almost the answer, but a riddle still remained to be solved.

The Rectum

A woman, firmly in her eighties, presented herself with the complaint of profuse rectal bleeding. Digital examination revealed an enormous fungating mass about five centimeters from the orifice.

I immediately called a properly trained surgeon, gave the patient a note of referral and sat back quite satisfied with myself.

However, there is many a slip. On the way to the hospital, the daughter suddenly brought up the subject of a "cancer specialist" in another country. Straight for the international boundary they fled, leaving the surgical consultative appointment delicately in the lurch.

They had barely been introduced to the wordy one, his sweet speech fairly dripping with mahua butter, when his nervous needle began to operate. After twenty injections of the "miracle serum" at $50.00 a throw, and after all "contact members" of the family had received "prophylactic injections" ($25.00 each), the bubble began to burst. The patient finally returned to my office, depleted in cash, deflated in spirit, denuded of flesh, and thoroughly whipped.

This time I was the chauffeur, and no "international shunt" was indulged in. Palliative surgery with colostomy was performed. The patient survived for three and one-half years.

A thunderous moral can be drawn both as to cultist's claims and the disastrous delays resulting therefrom. Even though the "miracle injections" should consist of harmless rain water, in the hands of a malignant quack they produce the tardiness that nominates death.

The Ovary

An elderly woman neglected her bulging abdomen. A gynecologist finally removed a large ovarian cyst, which was carcinomatous, with spread to the

sigmoid. She was sent home to die. Colostomy aided daily evacuation of the bowels. All opiates and barbiturates failed to aid her discomforts. Demerol was a child's toy. It became necessary for me to speak the truth to her, as she was necessitated to set her affairs in order.

Generally, I am honest with such neoplastic patients. Otherwise, the doctor comes and the doctor goes, and the patient loses faith daily. Also, to avoid the truth makes one live an actual lie, but to speak the truth, albeit a bit sugar-coated, does the patient much more good than harm.

Her main appeal was for a bit of comfort while her life lasted. In desperation I prescribed thorazine. She became immediately comfortable and remained so until her death. This drug has failed for some but has proved victorious for the many, who are classified as hopeless.

There are many further experiences with ovarian neoplasms, but I would summarize them all by urging early reporting to the physician, when changes in bodily contour or function are observed.

The Uterus

A lavender and old lace widow, aged seventy, presented herself for a pre-marital examination with no complaints registered. She was the picture of health, with snappy eyes and milk and blood complexion.

During the examination, the vaginal speculum revealed a slightly bloody ooze from the cervix. I submitted her to a well-trained gynecologist. Dilatation and curettage followed. The pathologist gave a negative report.

The patient and I were not satisfied. Marriage was delayed. In three further months I requested a repeat curettage, somewhat with objections hovering. On this occasion a "fish roe mass" was presented. The pathologist now rendered a diagnosis of adenocarcinoma of the uterine fundus.

Our lady spoke up, "I've had my day of laughter. I don't fear death. That is a pastime we must all face. I only fear being thrust upon a new husband as a hopeless invalid."

The patient underwent a complete hysterectomy, combined with radiation therapy. Marriage later followed. Twenty years have passed, and she is a widow again, hale and hearty.

The conclusion to be drawn: *A negative report, in the presence of clinical evidence, cannot rule out cancer. This same dictum also applies to the modern Papanicolaou Stain.*

The Cervix

I inherited a woman, aged seventy-nine, thirteen years after she had undergone radiation therapy for carcinoma of the cervix. She was now in the last stages of generalized carcinomatosis. She operated a "Woman's League House" for the University of Michigan. Twenty-five young women from the Near East were due to arrive in a week. The University officialdom felt that death or a close approach thereto would not serve as a jovial reception-technique to the newcomers. The patient was asked to be transplanted to a convalescent home.

She promised me that she would be dead or removed by midnight before the onrush of foreign youth into her home. She never left the house. At 10:00 p.m. on the fatal night she folded her arms across her chest, closed her eyes and apparently died under her own compulsion. Her son and daughter carried on her duties, as promised.

This woman had lived a long, useful and puritanical life after the declaration of her original diagnosis and institution of treatment. Her death by self discipline reflected her devotion to duty and was in keeping with the rich pattern of behavior that she had set for herself.

The Prostate Gland

A vigorous man in his mid-eighties carried on his activities as farmer, performing many useful chores about the place and charting production reports of the land, stock and dairy divisions. The "scut work" was performed by the son and the hired man. It is beyond my sphere of understanding how such a splendid specimen of humanity should visit a bargain counter regularly "to make the kidneys work."

One evening he called his "talk doctor" by phone and said, "My kidneys hain't shown nothing for three days and nights."

The great wise one at the other end of the line countered with, "Then double the dose." The patient was perplexed only a moment. Then he rang again. After an interval of time the "soda squirt" answered. The complaint was repeated. The lad, barely sixteen years of age, whispered into the phone hoarsely but fiercely, "For God's

sake get a doctor!" Finally that night the two of us met. I found the poor fellow with his bladder line raised to the equivalent of a six-months pregnancy. The prostate was enlarged and bone hard.

He was admitted to the hospital at once. Genitourinary consultation was secured and the bladder was decompressed. Later, the patient underwent a transurethral prostatectomy and extensive cancer was revealed. With some argument, castration followed, albeit our sufferer said in his nicest English, 'If they must go, they must go, but they do dress a man up so." Postoperative diethylstilbestrol was prescribed.

This man still lives, after the passage of six and one-half years. Lighter farm chores are indulged in. One day at the farmers' market he "yoo-hooed" to me a half hundred feet away, pitching his high tenor voice above the cackling of the chickens and the Swabian accent, with this announcement, "Doctor, Oh Doctor, the fountain is working beautifully."

Again the calamity of nostrum delay is pointed out with deadly aim, even though this particular rescue is still operating favorably.

The Kidney

A wiry man in his later sixties became aware of a vague discomfort in his left flank, associated with weakness and a degree of encroaching debility. After six months of prophetic invaldism he suddenly and dramatically gushed a large urinary hemorrhage. After admission to the hospital and consultation, retrograde pyelogram detailed a large defect in the right kidney.

At surgery, the organ involved was grossly enlarged and deformed. A sizable foul carcinomatous area had become degenerated and ruptured into the kidney pelvis.

Nephrectomy was performed by the referring surgeon, including dissection of metastatic glands. The patient remains an invalid.

By some means this man should have been captured and diagnosed six months earlier. He and his wife both admit it. She plainly states that she does not perfer the status of widowhood. They merely affirm that they were hopeful "Things would ease up on the brighter side." Looking backward they both feel they were amply warned by nature. However, they turned their back on biological promptings as were given but also squelched their own intelligence.

The Extremity

A stouthearted farmer of seventy-two recited to me the story of an indolent finger ulcer that lingered a year and a half without much pain. Upon examination, there was squamous cell carcinoma. Before the digit was enucleated, the radiologist treated all lymph channels of the arm up to and including the axillary nodes.

Following finger amputation, our agricultural enthusiast returned to his farm and lived out his life to the age of eighty. He died of primary carcinoma of the liver. The pathologist claimed that this new lesion was not metastatic from the finger. Deep inside of me I have incubated some doubts.

When a lesion is out in the open and invites attention daily, one lingers along a sharp razor edge of wonderment at any prolonged delay to the medical paths of complaint and inquiry. It becomes difficult, however, to render a firm and pointed lecture after the damage is done. Nonetheless, by intelligent educational propaganda the stumbling blocks for others can be avoided in advance.

The Leukemias

An anemic man in mid-sixties was going downhill fast with myelogenous leukemia.

He underwent blood transfusions and was submitted to a series of radiation therapy. Also he received some of the newer chemical approaches to palliative care.

There were remissions and exacerbations. However, he lived into his seventies and carried on a half-time business.

Finally, he grew an enormous mass behind the right ear which no longer responded to radiation or chemical therapy. Death followed.

In this case, the patient lived a good life span, which is not always the experienced finding. Here, I believe the world is waiting astutely for a research solution.

Other Organs

The central nervous system has not been discussed and I shall assign the subject, including the eye and ear, to masters in their isolated fields. Also, where my critics find omission, they are invited to fill in the gaps.

Primary cancers of the liver and pancreas are the present stumbling blocks in diagnosis, as we

cannot properly delineate these organs by contrast media in roentgen study, except when contour shadows invade a viscus outline. On many occasions by the time a diagnosis is made, the news is late and the process is well advanced.

Peritoneoscopy has become an aid in creating an "eye view" of abdominal organs via a minor incision. However, please remember that the pancreas is retroperitoneal. Biopsy material from some organs can be obtained for diagnostic study by the consulting surgeon. Alas, I can recall no case, however, in my series where a life was saved by early diagnosis in these two fields of hepatic and pancreatic neoplasms, although a younger woman in the Ann Arbor area enjoys a six-year survival following total pancreatectomy. If this situation is true of myself, it is true in the case of many.

Conceivably, a small isolated cancer could be found and removed before symptoms and before spread. But by what means shall we discover this cozy situation?

Early jaundice, not well explained, has yielded to laparotomy, with carcinoma found in the head of the pancreas. Removal of "the head" plus duodenum (Whipple operation) has brought forth cures for a number of years. While the percentage of salvage is woefully low, I see no reason why the devoted surgeon should stop struggling with such serious problems. The alternative is "Know nothing, do nothing." Therefore, except in a few assumed select circles, more research is required and more intelligence must be mustered than has been witnessed in the past. Those of you, who have good news to offer, please contact me at once, and I shall remain deeply grateful.

Growths in the bone structure become only a fleeting pastime with me. They are referred to bone and joint surgery so fast following roentgen study, that the patient meets himself going out before he has barely entered my office.

Neoplasms of the penis and testes are by location available for inspection in the early stages. I have been able to detect modifications of contour in routine repeat examinations, with quick referral for genitourinary surgery.

Early circumcision is a proper prophylaxis against cancer of the penis. It is difficult to believe, but patients have come to me boldly stating that they were aware of contour changes over a period of time and then let the months pile up before seeking medical advice. He who fiddles with time fascinates only the Grim Reaper.

Summary

In dealing with the geriatric cancer patient, I have attempted to recall certain personalities, whose lives could serve as teaching agents, whether combined with diagnostic victories or defeats.

Again I wish to emphasize the three philosophical approaches to therapy, consisting of the cure, palliation and endurement.

Quick detection is the watchword of the twentieth century. Removal by surgery and radiation remains our present best approach. The isotopes of the future will open wide the fields of therapy.

Chemotherapy, such as the nitrogen mustards and hormone therapy will wend their further way into our armamentation of treatment. The future may experience a place for certain antibiotics, and even vaccine prophylaxis may have its day in the offing. We applaud every step that properly advances its way in scientific research.

The further education of the profession and the public is urged. We all abhor the nostrum shunts that produce diagnostic delays and, therefore, become the great killers in geriatric cancer.

The warnings of nature include the following, which are signals for medical inquiry and interference: (1) indolent ulcer, (2) pearly plaque, (3) persistent hoarseness, (4) modular areas, (5) tumor in any part of the body, (6) abnormal bleeding, (7) abnormal function, (8) unusual bodily discharge, (9) failing appetite, (10) pain, (11) change in bowel habits, (12) urinary retention, (13) anemia, (14) weakness, (15) change in color, (16) loss of weight, (17 cough plus time (if tuberculosis is uncovered no harm is done, I can assure you), (18) change in contour.

There are probably a hundred further signs. The above items are only an introduction to the list.

My last word of plea has to do with human intelligence. *When the patient himself knows of the signs of departure from normal and then experiences these same signs, without seeking medical aid, he has practically resigned from the human community.*

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715 N. University Avenue
Ann Arbor, Michigan

CARCINOMAS OF THE THYROID

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methods and an inadequate follow-up. Most of the data have been based on five-year periods of observation which are of limited value in such slow-growing tumors as papillary carcinoma of the thyroid. No comparable series of cases treated in the same manner have yet been followed long enough to determine the best method of therapy. Until twenty-year follow-up reports become available, the controversies concerning therapy for thyroid carcinoma will continue.

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The Principles and Evaluation of Curative Cancer Therapy

By Chandler Smith, M.D.
Saginaw, Michigan

THE FUNDAMENTAL premise of the evaluation of cancer therapy is that the rate of survival expresses the accomplishment of the method of treatment. The corollary to this premise is that a comparison of survival rates will reveal the superior method of therapy. However, different methods are attended by both favorable and unfavorable results. Comparison of the favorable results has failed to reveal the superior method of treatment for common primary cancers. For example, disagreement persists over the best method of treatment for primary cancer of the breast, uterine cervix, and endometrium. Therefore, the evaluation of cancer therapy by a comparison of survival rates has not attained its primary objective. Furthermore, the unfavorable results have occasioned disagreement over the principle of treatment. For example, there is challenge to the idea that early and radical therapy is superior to conservative and delayed treatment.[1,2]

Such views detract from the important understanding that the earliest treatment will provide the best result. It is therefore of importance to examine critically the basic premise of the current method of cancer evaluation. If that premise is shown to be invalid, a way may be found to explain the unfavorable rates of survival without challenge to the principle of treatment, and to discover a reliable way to identify the superior method of therapy for primary malignant disease. The purpose here is to examine that basic premise and to apply the understanding thus gained to the questions of unfavorable results and superior methods.

Principle of Treatment

Cancer arises at a focal midus after which the tumor cells spread in a peripheral direction from the site of origin. After the onset, it is not possible to predict the distribution of tumor cells accurately from clinical examination of the patient. For example, the palpable features of a mass in the breast do not reveal whether tumor cells have reached the axilla, the mediastinum, or more distant sites. The classification of cancer of the uterine cervix according to clinical stages further illustrates this difficulty. A tabulation of five series of cases, all judged clinically to be stage I, revealed an incidence of tumor cells in pelvic lymph nodes that varied from 2.5 per cent in one series to 34.2 per cent in another series.[3] Regardless of this difficulty, however, the cure of cancer depends on the eradication of all tumor cells. The principle of curative cancer therapy may thus be formulated from three premises: (1) tumor cells move away from the site of origin, (2) the distribution of tumor cells cannot be accurately foretold, and (3) the cure of cancer depends on the eradication of all tumor. The principle of treatment is therefore the eradication of all tumor from the largest amount of tissue at the earliest moment with the least risk.

Evaluation of Treatment

Survival after cancer therapy is determined by two factors. The first is the amount of tissue cleared of tumor by the method of treatment, and the second is the distribution of tumor cells at the time of treatment. If all tumor cells lie within the tissue cleared of tumor, cure is assured. If not, failure is certain. Therefore, survival is determined, not by the method of treatment, but by the relationship of tumor cell distribution to the tissue cleared of tumor by that method. The factors that determine survival rate after cancer therapy are given in the formula:

$$\frac{\text{Tissue Cleared of Tumor}}{\text{Tumor Cell Distribution}} = \text{Rate of Survival}$$

The ratio declares that the greater the proportion of patients in whom the tumor cells are circumscribed about the primary site, and the larger the amount of tissue cleared of tumor by the method of treatment, the higher the rate of survival. The rate of survival thus expresses the

From St. Luke's Hospital, Saginaw, Michigan.

TABLE I. CARCINOMA OF BREAST:

Range of Results According to Method of Treatment

Method of Treatment	Number of Cases	Five-year Survival
Simple Mastectomy		
1. Deaton and Bradshaw[4]	30	63.3%
2. Nohrman[5]	43	58.1%
3. Lockhart and Ackerman[6]	13	38.4%
4. Byrd and Conerly[7]	61	32.7%
5. Orr[8]	44	18.1%
Radical Mastectomy		
1. Clifton and Young[9]	322	54.9%
2. Bell[10]	203	53.6%
3. Haagensen and Stout[11]	495	48.7%
4. Lampe[12]	742	40.2%
5. Orr[8]	195	37.9%

TABLE II. STAGE I CARCINOMA OF CERVIX:

Range of Results According to Method of Treatment

Method of Treatment	Number of Cases	Five-year Survival
Radiotherapy		
1. McKelvey et al[13]	180	91.1%
2. Costolow and Nolan[14]	186	73.1%
3. Truelsen[15]	166	59.8%
4. Munnell and Brunschwig[16]	200	53.0%
5. Hahn[17]	53	52.8%
Surgical Therapy		
1. Morton[18]	27	92.6%
2. Pratt[19]	72	84.7%
3. Brunschwig[20]	57	82.0%
4. Liu and Meigs[21]	93	73.1%
5. Read[22]	34	41.0%

TABLE III. CARCINOMA OF ENDOMETRIUM:

Range of Results According to Method of Treatment

Method of Treatment	Number of Cases	Five-year Survival
Combined Therapy		
1. Payne[23]	28	92.9%
2. Hundley and Associates[24]	32	84.4%
3. Arneson[25]	60	70.0%
4. Taylor and Becker[26]	31	64.5%
5. Scheffey and Associates[27]	38	46.0%
Primary Hysterectomy		
1. Marshall[28]	31	90.0%
2. Payne[23]	46	80.4%
3. Arneson[25]	43	67.7%
4. Ward[29]	27	63.0%
5. Speert and Peightal[30]	95	48.4%

ratio of two factors without measuring either. However, each factor independently exerts an effect on the result. For example, a method that clears tumor from a small amount of tissue will be attended by a high rate of survival if the tumor cells in most of the cases are sharply circumscribed about the primary site. Conversely, a method that clears tumor from a large amount of tissue will be attended by a low rate of survival if the tumor cells in most of the cases are widely dispersed from the primary site. Therefore, the rate of survival may be high or low regardless of the accomplishment of the method. For this reason, the fundamental premise of the evaluation of cancer therapy is not valid.

The corollary to this premise may now be examined. Can a comparison of survival rates be expected to reveal the superior method of treatment? This depends on the relative effect of each factor on the result. The effect of the denominator of the ratio (tumor cell distribution) may be estimated in the following way. When different series of cases of the same type are treated by the same method, the amount of tissue cleared of tumor is almost constant and the numerator of the ratio is a fixed and nearly uniform value. The rate of survival for each series depends on the proportion of cases in which all tumor cells lay within that uniform amount of tissue. That proportion is determined by the unpredictable distribution of tumor cells. Therefore, the effect of the variable of tumor cell distribution on the rate of survival is revealed by the range of results that accompanies different series of cases of the same type that are treated by the same method.

The rates of survival according to the method of treatment for cancer of the breast, uterine cervix, and endometrium are cited in Tables I, II, and III. From these wide ranges of results it is apparent that the variable of tumor cell distribution bears a pronounced effect on the rate of survival.

The effect of the numerator (tissue cleared of tumor) on the result may now be considered. The tissue cleared of tumor is the accomplishment of the method since tumor within that tissue cannot recur within the patient. Different methods of treatment clear tumor from different amounts of tissue. Since the accomplishment of different



Fig. 1. Relationship of tumor cell distribution to difference in accomplishment of conservative and radical methods.

methods is uniform except for the additional tissue cleared of tumor by one, only that difference is of consequence.

The question is: *What effect does that difference bear on the rates of survival?* As illustrated in Figure 1, only three tumor cell distributions are possible with respect to the accomplishment of a conservative and a radical method of treat-

ment. In the first, all tumor cells lie within the tissue encompassed by the conservative method. In this event, both methods are successful regardless of the difference between them. In the second, some tumor cells lie outside the tissue encompassed by the radical method. In this event, neither method is successful regardless of the difference in their accomplishments. Both of these tumor cell distributions are common, and therefore, the difference in the accomplishment of the methods bears not the slightest effect on the rates of survival in most of the cases. That difference is reflected in the rate of survival only when some tumor cells lie outside the tissue encompassed by the conservative method while all tumor cells lie inside the tissue encompassed by the radical method. In this event alone is the patient curable by one method and not by the other. This precise distribution of tumor cells may be expected at the time of treatment in only a small number of cases.

Therefore, the constant difference in the accomplishment of the methods bears only an occasional effect on the rates of survival. It is thus apparent that the numerator of the ratio bears a slight effect, and the denominator a pronounced effect on each rate of survival. The denominator is a wide-range variable. Therefore, the within-group variation for each series is so much greater than the between-group difference that compilation of enough cases to demonstrate that difference becomes an impractical endeavor. For this reason, a comparison of survival rates cannot be expected to reveal the superior of comparable methods of treatment.

A favorable rate of survival cannot be attributed to the accomplishment of the method in disregard for the variable of tumor cell distribution any more than a statistical result can be attributed to the least reliable of the factors that enter a computation. A low rate of survival does not indicate an inferior method of treatment any more than a high rate necessarily indicates that the method is superior. Both results depend primarily on the distribution of tumor cells, and both errors are precluded by discipline in the interpretation of survival rates. For example, a survival rate of 70 per cent means that all tumor cells lay within the tissue cleared of tumor by that method in 70 per cent of those cases. It does not disclose the amount of tissue cleared of tumor and it does not mean that all tumor cells will lie within that same amount of tissue in any other series of cases. The rate of survival thus indicates, not the accomplishment of the method, but the proportion of the total cases in which all tumor cells lay within the tissue cleared of tumor by that method. A favorable rate of survival after a method of therapy that digresses from the principle of treatment is due to a fortuitously circumscribed distribution of tumor cells in a high proportion of the cases rather than to a superior accomplishment of the method.

An unfavorable rate of survival after a method that complies with the principle of treatment is due to an adverse distribution of tumor cells at the time of therapy rather than to an inadequacy of the method. When the method of therapy complies with the principle of treatment, the best possible result is achieved. Therefore, compliance of the method with the principle of treatment is a more reliable criterion of superiority than is a comparison of survival rates.

Application of the Principle of Treatment

These considerations pertain to the treatment of common primary cancers. Carcinoma of the breast may be treated by simple or by radical mastectomy. The latter clears tumor from more tissue than the former. The difference in the accomplishment of the methods is the additional tissue cleared of tumor by the radical procedure. That difference is reflected in the rate of survival by only the proportion of cases in which some tumor cells lie outside the tissue excised by the conservative procedure while all tumor cells lie within the tissue encompassed by the radical operation. This precise distribution of tumor cells may be expected to prevail at the moment of treatment in only a small number of cases. Therefore, the difference in the accomplishment of the two methods bears a negligible effect on the rate of survival. Since each rate is dominated by the variable of tumor cell distribution, a comparison of those rates cannot be expected to reveal the superiority of the radical method. Nevertheless, that difference is of surpassing importance to the occasional patient. Therefore, radical mastectomy is the preferred treatment for cancer of the breast so long as the patient can withstand the operation safely, and the surgeon can perform the procedure skillfully. Superiority of the radical method is attested by the reports of patients who have regained prolonged health after the surgical specimen revealed metastatic disease in axillary lymph nodes,

an area outside the tissue cleared of tumor by the conservative method. Such reports are provided by Haagensen and Stout[11] and by others.

Cancer of the uterine cervix may be treated surgically or with radiant energy. When a curative dose of radiant energy is applied and the pelvic organs are subsequently excised, the finding of residual tumor about the periphery of the operative specimen establishes that the surgical method cleared tumor from more tissue than was accomplished by the radiation method. The difference in the accomplishment of the two methods is slight, and the effect of that difference on the rates of survival is too small to be disclosed by a comparison of those rates. For the occasional patient, however, the greater accomplishment of the surgical method determines the difference between success and health, or failure and the ravages of metastatic disease. Under optimal conditions, therefore, surgical therapy is the superior method for the curative treatment of invasive cancer of the cervix. The superiority of the operative method is attested by prolonged survival in patients in whom the surgical specimen disclosed tumor cells in tissue beyond the cancerocidal range of the radiant energy. Such results are reported by Taussig,[31] Meigs,[32] Bonney,[33] Brunschwig,[20] Schlink,[34] and Liu and Meigs.[21]

The principle of treatment decrees that not only the largest amount of tissue should be cleared of tumor, but that the method should be applied at the earliest possible moment. The foregoing examples reveal the need for compliance of the method with the principle of treatment in terms of the amount of tissue cleared of tumor. The factor of time is illustrated by reference to the treatment of endometrial carcinoma which may be treated by undelayed hysterectomy or by intracavitary radium with hysterectomy six to eight weeks later. Each method clears tumor from the same amount of tissue.[35] However, in combined therapy, the operation is delayed. The superiority of immediate hysterectomy is thus the proportion of cases in which extra-uterine metastasis takes place from tumor cells beyond the cancerocidal range of the radium during that period of operative delay. This event is infrequent because endometrial carcinoma is usually a slowly invasive tumor. Therefore, the difference in the accomplishment of the two methods is too slight to be disclosed by statistical means. There is no justification, however, for deferring definitive treatment for a period during which tumor cells may pass beyond the boundary of resectable pelvic tissue. Under optimal conditions, therefore, undelayed hysterectomy is the preferred treatment for cancer of the endometrium.

If the result of treatment improves as the amount of tissue cleared of tumor increases, the best result should attend the most radical method. Although this concept is correct, extrinsic factors limit its application. Super-radical mastectomy for carcinoma of the breast and pelvic exenteration for cervical cancer serve as illustrations. The super-radical operations are superior to the regular radical procedures by the proportion of cases in which some tumor cells lie outside the tissue encompassed by the regular radical method, while all tumor cells lie within the tissue cleared of tumor by the extended radical procedure. A superiority of the super-radical methods may be demonstrated, not by posting the survival rate of all patients so treated, but by achieving prolonged health in patients in whom the surgical specimen discloses tumor outside the tissue ordinarily encompassed by the regular radical procedure. Wide application of the super-radical methods may profitably await the recording of such evidence because the complications of therapy increase as the method becomes more radical.

The method should not be so radical as to jeopardize the recovery of the patient, nor so conservative as to permit recurrence because of failure to excise expendable tissue. Modifications of this objective may be made for the individual case according to the condition of the patient, the skill and experience of the therapist, and the facilities available for treatment. Regardless of the modifications, however, or the results, the therapeutic objective as expressed by the principle of treatment, remains unchanged.

Rate of Survival

Since survival rates are seldom useful in determining the superior method of treatment, of what utility are they? The rate of survival indicates the proportion of cases in which all tumor cells lay within the tissue cleared of tumor by the method of treatment. Therefore, rising rates of survival after the same method of treatment are due to higher proportions of patients who are treated while all tumor cells are circumscribed about the primary site rather than to any substantial im-

provement of the method. For example, Harrington[36] cites five-year survival rates after radical mastectomy between the years 1910 and 1944 that read in sequence, using nearest whole numbers: 40, 41, 40, 48, 54, 60, and 62 per cent. For carcinoma of the uterine cervix, Heyman[37] reports a relative cure rate of 52.4 per cent for stage I cases treated with radiotherapy from 1914 to 1931. That figure rose to 69.3 per cent during the ensuing period from 1932 to 1941. In the state of Connecticut, the Cancer Registry tabulated the results of treatment of 75,494 cases of cancer from 1935 through 1951.[38] Marked increases in the five-year survival rates were observed for patients with cancer of the colon, rectum, uterine cervix, and uterine body.

This encouraging trend may be attributed to the programs of cancer education which emphasize to the public and the profession the importance of early treatment. It is in the demonstration of this progress that public enthusiasm in the programs of early cancer detection may be enlisted and sustained. The public and the medical profession, sharing together the responsibility of early detection, should move forward with understanding and conviction so that the largest number may be provided with the best treatment at the earliest moment. Herein lies the hope for continued improvement in the results of cancer therapy.

Summary

The principle of curative cancer therapy is the eradication of all tumor from the largest amount of tissue at the earliest moment with the least risk. The accomplishment of the method of treatment is the amount of tissue cleared of tumor. The distribution of tumor cells at the time of treatment is unpredictable. The rate of survival is determined by the ratio of tumor cell distribution to the amount of tissue cleared of tumor. The rate of survival is dominated by the unavoidable variable of tumor cell distribution. The constant difference in the accomplishment of comparable methods bears only an occasional effect on the rate of survival. That effect is too slight to be disclosed by a comparison of survival rates so long as the variable of tumor cell distribution is extant.

Compliance of the method with the principle of treatment is the most reliable criterion of therapeutic superiority. The rate of survival indicates the proportion of cases in which all tumor cells lay within the tissue cleared of cancer by the method of treatment. Rising rates of survival after the same method of treatment are due to higher proportions of patients who are treated while all tumor cells are circumscribed about the primary site. Such results are attributable to the programs of early cancer detection. Expansion of those programs and selection of the method of therapy according to compliance with the principle of treatment rather than by a comparison of survival rates will provide the best possible result for the greatest number of patients with malignant disease.

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Patients with Multiple Skin Malignancies

I. Some Remarks on Immunobiology

By Leon Goldman, M.D.
Cincinnati, Ohio

THOSE of you who sit, almost grudgingly, on cancer control councils know about the casual air with which malignancies of the skin are dismissed. The council is anxious to leave a subject of 90-plus per cent cures to discuss the gloomy prognosis of carcinoma of the lung.

There are, however, instances in which malignancies of the skin continue to develop on important areas of the face where they can produce severe disfigurement. These sites are the eyelids, nose, lips, and ears. Furthermore, cancer in an accessible and visible organ such as the skin may be used for investigative studies in the immunobiology of cancer. Two cases are selected from our series to illustrate.

Case Reports

Case 1.—R. McC., hospital orderly, aged thirty-two. Since 1948, he has been developing malignancies of the skin, all basal cell types. Most of the lesions are on the face and neck; next on the arms. At the time of his last examination (September 21, 1957), 120 malignancies were counted including some within scars of previously treated areas. Therapies included surgery, electrosurgery, conventional x-ray therapy, Thorium X, Sr^{90}, liquid nitrogen, carbon dioxide, podophyllin, and dermabrasion. His mother is reported to have died of malignancy of the breast. His father, aged seventy, is reported to have many malignancies of the skin (type?) of recent origin. Disfigurement of the entire face is increasing.

Case 2.—Mrs. T. H., housewife, aged thirty-two. Since 1942, she has been having basal cell malignancies of the skin. At one time, under the care of Dr. Clayton Wheeler, he reported she had had thirty-six lesions. Her therapy included surgery, electrosurgery and plastic surgery, x-ray therapy, psoralens, and sun screens. At the present time, she has small malignancies of the nose and cheeks for which plastic surgery is to be done by Dr. V. E. Siler. There is considerable scarring deformity about the eyes of this patient.

What do we try to do about preventing these locally destructive malignancies in these patients? We have tried protective clothing, sun screens, protective creams, oral psoralens (two years in three patients without any benefit and no apparent dangers in accelerating cancer development), vitamin A, et cetera.

At present, we have fifteen cases of these types of multiple skin malignancies. Most of the lesions are basal type; a few, however, are squamous, both pre-invasive and invasive.

The other patients in our series of multiple and recurrent skin malignancies are post-radiation dermatitis where plastic surgery cannot remove all of the involved skin. In addition, we have the arsenical keratoses group, psoriasis with multiple malignancies, and also, the rare xeroderma pigmentosum case in the child with the development of multiple skin malignancies. The only effective program we have to date is to watch for the early appearance, especially with skin microscopy, and to remove this small spot with a minimum amount of deformity. We believe, that where possible, excisional therapy should be done in preference to cauterization techniques. How do we try to prevent additional malignancies from developing in cases where we cannot correct this terrain readily?

Since our efforts with protective and chemotherapeutic measures to increase the resistance of such patients to the development of their tumors has failed, we look for help in immunology.

This is an old phase of cancer research.[1] However, the confusion of claims and counter-claims led to its abandonment as an important project.

In recent years, there has been renewed and extensive interest in immunology in relationship to tumors. The reason for this has been the advances in the field of immunology. Some of these advances may be considered briefly as the gel diffusion technique developed by Ouchterlony[2] after work by Bechold in 1905. This is a technique for immunologic assay. Other advances have included studies of immunologic properties of serum

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From the Department of Dermatology of the College of Medicine of the University of Cincinnati.

as regards organ specificity. Many of the recent studies have been done by Witebsky and his group.[3-5] In addition, Björklund[6,7] has been able to neutralize antibodies in hyperimmune serum against normal human plasma. The resultant antiserum contains free antibodies against tumor antigens. Consequently, antibodies can now distinguish not only between different types of bacteria and viruses, but also between normal and even abnormal mammalian cells and viruses. Brandt[8], in our department, did pioneer work on organ specificity of brain tissue and studied the lipid nature of this antigen. Brandt[8] now directs the serological studies in our work with skin cancer. Freund[9,10] found that antibody formation can be enhanced and sustained when the antigen is injected in a water-in-paraffin oil emulsion with killed mycobacteria. This extra stimulant is called the Freund Adjuvant and became an important part of modern cancer immunology.

All these developments combined with the great advances in tissue culture techinques have enhanced investigative and popular clinical research in so-called cancer immunity.

Does clinical evidence indicate that there may be, at least, at times some immune mechanisms active in human cancer? According to Graham,[11,12] these may be listed briefly as: (1) inflammatory response about tumors, (2) some tumors such as gastric carcinomas show peripheral necrosis, (3) activity of lymphoid tissue in regional nodes in response to local metastatic foci, (4) concept of latent or arrested carcinoma (desensitization of host — Berdel[13], (5) occasional spontaneous regression with acute infection, (6) the local histiocytic response in tumors, (7) finally, the actual evidence of the development of antibodies in patients elicited by their own tumors.

Many experiments have been done on the immunologic mechanisms of animals subjected to inoculation by various tumors and tumor extracts. Also as indirect evidence recently have been the experimental vaccines of virus lymphomatosis in chickens by Burmeister[14] and the development by Friend[15] of a vaccine for the virus causing leukemia in mice.

All this naturally has lead to some initial studies on human cancer. The cancer implantation series at Memorial in New York and at the Ohio Penitentiary are well known.[16,17] The resistance or lack of resistance to human inoculation with tumors has been related by Southam and his collaborators[16,17] to the blood properidin level. Another interesting feature of the cancer implantation experiments in man is the more rapid rejection of the second implant by the volunteer. This may indicate an immunity acquired and superimposed on a natural immunity. The group at Memorial further concludes that the cancer cells used in the implant experiments may contain antigens not found in normal human cells. Witebsky[5] and his associates in experiments in rabbits showed antigenic differences between extracts of normal thyroid and thyroid malignancies. It is important to emphasize that a cancer transplant is not the same as spontaneous cancer.

Stone and Schnaufer[18] have used implantations of sterile frozen cancer tissue in an effort to induce resistance. Perhaps the most extensive and careful recent studies in the treatment of cancer patients with vaccine have been done by Graham[11,12] and his staff. He has treated recently eighty to 100 patients. His work and advice and suggestions have been followed by us. As Witebsky[5] indicates, most of the work in man has been with more or less terminal cases: "If one could summon the courage to treat patients at an earlier stage, the results might possibly be different."

In 1935, at the suggestion of Lee Foshay, we took blood serum from a patient with multiple superficial malignancies of the skin who showed areas of spontaneous healing.[19] We used this serum locally and systemically in patients with basal cell malignancies without any result. In an effort to study the immune mechanism of this "donor" patient, we tested her to various forms of radiations, tars, arsenic (which she had taken at one time), and even methylcholanthrene. No evidence of cutaneous hypersensitivity could be demonstrated on her uninvolved skin.

We decided to start our investigative studies in cancer immunity with experiments in the group of multiple basal cell malignancies. We have seen that there is no practical prevention program available for this patient. Perhaps, the choice of a basal cell tumor as a so-called cancer antigen is unwise, for basal cell malignancies rarely metastasize and may have different immunologic mechanisms. Moreover, this lesion may not be even a malignancy. Lever[20] considers them as hamartomas. Greene[21] has never succeeded in growing basal cell tumor in the rabbit eye.

However, the study in the multiple basal cell group would serve to introduce us to the subject of skin cancer immunology in that it would give us opportunity to study the local reactions of the antigen, especially the influence of the adjuvant. The serologic control studies could also be done here. The present series, then, includes twelve patients with multiple basal malignancies; one with multiple squamous cell tumors.

The tissue is removed under sterile precautions —one portion is sent for confirmatory biopsy. The other portion is put into a sterile container and kept in deep freeze until ready for preparation. An effort is made to get as much tumor and as little other structures such a subcutaneous tissue. Efforts to check the fresh tissue under the stereobionocular microscope in order to dissect away excess tissue has made for bacterial and mold contamination. The theoretical reason for avoiding other tissues is that we do not wish to induce antibodies against epidermis, vascular structures, et cetera. Graham[12] has indicated that a "number of patients have shown a striking eosinophilia" following the use of the cancer vaccine. He has had no serious complications.

Under sterile precautions, the frozen bit of tissue is ground in a small sterile glass grinder. We are studying the resultant tissue mass after grinding with methylene blue, Janus green and acridine orange to determine preservation of nuclei after grinding. Because of the small size of tissue, we prefer this glass grinder to a metal tissue grinder. Saline is added to this ground mass, then, our modified Freund adjuvant (eight parts of a paraffin base, Bayol F, to one part of a wetting agent, Arlacel).[22] We have omitted the Mycobacterium butyricum at present. The creamy mixture is checked for sterility and then used for injection. One tenth to 0.2 cc. is injected intradermally in the skin of the patient from whom the material was obtained. The time interval and dosage still remain to be determined. Most of the patients have had 0.1 to 0.2 cc. once a week for varying periods. The serological control of these patients is to be done by Brandt.[8] No program of this type, even with investigative studies, should ever be done without adequate serologic controls.

Our study has been in progress for only six months. This has given us opportunity chiefly to observe the development and progress of the local injection of the so-called tumor antigen with the modified Freund adjuvant. Small nodules persist for months. No large abscesses have developed. We have observed two instances of focal reactions in previous injection sites. We have not used intramuscular injections. In one patient, we used ultratumoral injections. Graham[12] has observed some ulceration of the skin from intradermal use of his cancer vaccine. A progressive histologic study of these instances shows a perivascular reaction and edema suggestive of a tuberculin-type response. Tissue eosinophilia is found in some sections. So far, of course, there has been no demonstrable effect on the active malignancies in any of these patients. There is no clinical evidence that there has been any activation of any of the lesions of these patients.

Conclusions

Observation of patients with multiple skin malignancies have offered nothing of practical value to increase their resistance to the development of new tumors.

Recent developments in immunology provide interesting technics for work with cancer. Many studies on immunity in human cancer have been started actually in man. Our own preliminary research has been with the patient with multiple and disfiguring skin malignancies. There have been no marked reactions to injections of skin tumor material in modified Freund adjuvant. Other than this, no conclusions can be drawn from our preliminary studies. Investigative studies of cancer vaccine should be done only in research centers where proper serologic and other critical investigative procedures can be done. At present, from a clinical aspect, the only effective therapy of these patients with multiple skin malignancies is the constant observation of the patient for the early detection and prompt and adequate removal of the lesion.

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441 Vine St.
Cincinnati 2, Ohio

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Lymphosarcoma of the Gastrointestinal Tract

Report of Two Cases

By John W. Strayer, M.D., F.A.C.S.
Niles, Michigan

ALTHOUGH lymphosarcoma of the gastrointestinal tract is relatively uncommon, it appears often enough to warrant a review of some of the important aspects of the disease. Lymphosarcoma involving this part of the anatomy can produce symptoms which are identical to those of other tumors, both benign and malignant, of the gastro-intestinal tract and, because of the extreme radio-sensitivity of the tumors, it is important to differentiate between lymphosarcoma and adenocarcinoma, which of course is much more common to this system of the body. The literature is surprisingly devoid of extensive refferences regarding this particular disease and, because of recent experience with two cases, one of lymphosarcoma of the stomach and one involving the small bowel, it was felt that a comprehensive review would be of some interest.

Report of Cases

Case 1.—This white man, aged seventy-nine, was first seen in October, 1955, complaining of some difficulty swallowing. His appetite had been fairly good, and physical examination at that time was not remarkable. He was urged to have gastrointestinal x-rays taken, but being of a determined nature, he refused. He was not seen again until June, 1956, at which time he complained of weight loss and weakness which had been rather marked for the past three months. The weight-loss amounted to 20 pounds. This was associated with some nausea and dizziness; there was no vomiting. The past history was non-contributory.

Physical examination at that time revealed an elderly, white male appearing chronically ill. He was of the asthenic type. The heart and lungs were not remarkable. The abdominal examination revealed no masses. The red blood count was 4,800,000, white count 6,300, hemoglobin 93 per cent, 14 grams. The differential was normal. The urinalysis was negative. The chest x-ray showed several old healed rib fractures and some emphysema, otherwise it was negative. Upper gastrointestinal x-rays were taken and revealed a large filling defect in the cardia of the stomach. The radiologist felt that this was a large carcinoma. On June 8, 1956, the patient underwent an abdominal laparotomy, at which time a large, rather bulky lesion was found involving the major portion of the cardia of the stomach but not extending into the esophagus. There were numerous pre-aortic nodes and the spleen was studded throughout. The nodes extended up and down the aorta. The liver was not remarkable. Grossly, this was felt to represent a lymphosarcoma and it was felt, at the operating table, that an attempt should be made to remove the primary lesion. This was done with the removal of the upper half of the stomach, doing an esophagogastrostomy but making no attempt to resect the multitude of surrounding lymph nodes and spleen.

The patient's postoperative course was fairly good. There was some infection of the wound but it healed very well and, except for some mental depression coupled with uncooperation, the patient got along fairly well and was discharged from the hospital on his twentieth postoperative day.

He returned home and began eating fairly well. He was seen again in the office two weeks after discharge and urged to have postoperative radiation. This was carried out and completed in September, 1956.

He became much stronger and felt very well until November of 1956, at which time a large mass appeared in the left axilla. This was also irradiated and disappeared completely. Approximately a month later another mass appeared in his left superclavicular area. The patient refused further irradiation. He gradually developed more gastrointestinal symptoms. He also developed innumerable large and small subcutaneous nodules which were obviously neoplastic, went downhill very fast and died on December 31, 1956. Autopsy permission was not obtained.

Case 2.—This man, white, aged forty-one, was seen in June, 1956, with right lower quadrant pain—of rather sudden onset, associated with nausea and vomiting, but his bowels moved normally. The pain became progressively worse and he was admitted to the hospital with a suspected acute appendicitis.

Physical examination, at that time, revealed a slightly elevated blood pressure. There was a marked divergent strabismus. The heart showed some enlargement associated with the definite pre-systolic murmur and slight thrill. The abdomen showed some moderate distention with increased bowel sounds, but no masses were felt.

Laboratory findings showed a red blood cell count of 5,680,000, white blood cells 8,300, hemoglobin 106 per cent, 15.9 grams. The differential was normal. Examination of the urine showed no abnormalities. The blood carbon dioxide was 54 milligrams-per cent, the chlorides

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were 562 mg. per cent. A flat plate of the abdomen was taken and innumerable loops of small bowel were found to be dilated, and a diagnosis of intestinal obstruction, small bowel type, was made. A long tube was then passed without difficulty and the patient was completely decompressed. A barium enema was then obtained and a large defect was noted in the iliocecal region, lying in the cecum. The appearance was in keeping with a tumor of the cecum, causing small bowel obstruction and possibly intussusception.

The patient underwent a laparotomy on June 29, 1956, at which time a golf-ball-sized mass was found in the terminal ileum, which had intussuscepted into the cecum and produced small bowel obstruction. There were innumerable large 2 to 3 centimeter nodes extending throughout most of the terminal ileum mesentery. It was felt that this was probably an adenocarcinoma and a right colectomy was carried out with removal of approximately 4 feet of the terminal ileum with its wedge of mesentery. An ileo-transverse colostomy was carried out. The patient's postoperative course was entirely uneventful and he was discharged on the seventh postoperative day. The pathology report was that of a lymphosarcoma of the ileum, and all of the lymph nodes were involved in the lymphosarcomatous disease. Following discharge, the patient gained weight and continued to feel very well. He underwent a postoperative course of irradiation, and at present has returned to his job with no complaints.

Incidence

Sarcomas of the stomach make up 1 per cent of all of the gastric neoplasms. Approximately half of the sarcomas are lymphosarcomas and constitute the greatest number of sarcomas of the stomach. The age groups most frequently encountered are, in general, considerably younger than those encountered in gastric carcinoma. This point is an important one in regard to differential diagnosis. The average age, as accepted, is in the middle forties, although in one case reported in this paper the patient was seventy-nine. It is equally divided between male and female, although the reticulum cell type of lymphosarcoma is primarily a disease of the male with a ratio of six to one.

Lymphosarcoma of the small bowel occurs almost as frequently as adenocarcinoma does in the small bowel. Its most important site of predilection is in the ileum and usually in young adult males. Ullman collected 109 cases of lymphosarcoma of the intestine and seventy-seven of these occurred in the small bowel; thirty-six of these were in the ileum. These may extend for a relatively long distance of 15 to 20 cm. along the small bowel. They may also present disc-like areas which usually arise in the submucosa. Lymphosarcoma of the large bowel is much less common but does occur, and its most frequent site is the cecum, but also has been reported elsewhere, including the appendix and the rectum.

Clinical Features

The history of this disease does not aid a great deal in the definitive diagnosis of it. Vague epigastric pain which could resemble anything from ulceration to adenocarcinoma is probably the most common symptom, but of course does not particularly help in the diagnosis. Frequently, an ulcer history can be elicited, and the first impression from the history would be that of an ulcer. Bleeding is not very common because the lesion does not produce any great ulceration but, rather, is a submucosal invader and, as a rule, the red blood count will be perfectly normal or only slightly decreased. Vomiting also occurs but is certainly much less frequent in this particular disease because of the lack of mucosal involvement. Loss of weight and chronic fatigue are particularly common findings. Physical examination is not enlightening other than the points previously mentioned; however, if the lesion is large enough, as in approximately half of the cases, a mass can be felt.

Because of the relationship of this to the lymphomas, in general, one would suspect that there would be some alteration in the white blood cell count, but strangely enough this does not occur. The blood picture is of very little help. This is also true of other laboratory examinations, including gastric analysis; the fasting acids are usually normal or even elevated. This is in sharp contrast to the achlorhydria that occurs in carcinoma of the stomach.

A hypothetical summary of the clinical findings would be a younger patient in relatively good nutrition without gross anemia, normal acids and with a palpable mass in the epigastrium. This should arouse some suspicion that this gastric lesion may not be an adenocarcinoma and possibly fall into the lymphosarcoma group.

The symptoms associated with a small bowel lymphosarcoma are those of a neoplasm of the small bowel, in general. The case presented in this paper had symptoms of a low-grade progressive intestinal obstruction, which finally went to complete obstruction and, at operation, an ob-

struction was found with an intussusception of the lymphosarcoma from the terminal ileum into the cecum. This is by no means pathognomonic of a lymphosarcoma. Intussusception does occur relatively frequently. Irvine and Johnstone have reported thirteen cases of perforating lymphosarcoma of the small bowel, the onset of which was usually abdominal pain or vomiting with no previous anorexia or weight loss in most of the patients. Recurrent attacks of abdominal pain were experienced by ten patients. In seven, the pain was mid-abdominal and of a colicky nature, often following food, and was occasionally relieved by a semi-fluid diet. Constipation was relatively frequent, although diarrhea has been reported in several cases. Weight loss was very constant.

Diagnosis

The pre-operative diagnosis of a lymphosarcoma of the gastrointestinal tract is almost impossible, and the pre-operative diagnosis in most cases is that of the more common neoplasm, carcinoma. The gastroscope provides little or no help; the roentgen findings may suggest but certainly are not conclusive that this is a gastric lymphosarcoma. The radiologist also has considerable difficulty in producing a definite diagnosis, especially with reference to the stomach. Deeb and Stilson feel that the most important common factor to all these cases is a remarkable flexibility of the defect as seen fluoroscopically. They also felt that the presence of coarse rugae was helpful.

Identifying the lesion in the small bowel is also difficult. Usually only the signs and symptoms of obstruction are present. A barium enema may reveal a filling defect if there is intussusception or possibly a filling defect in the terminal ileum, should the terminal ileum fill. Bockus lists the following important features, suggesting that a particular gastric lesion may be sarcomatous: (1) youth of the patient, (2) the presence of a firm enlargement of a superficial lymph gland not in the usual location for lymphatic metastasis of gastric cancer, (3) a smooth, sharply circumscribed negative roentgen defect surmounted by a very small crater fleck, (4) presence of a very large but not very deep ulcerating tumor-like roentgen defect in association with a very short history of symptoms, (5) evidence of a very extensive involvement of upper abdominal structures on physical or x-ray examination in association with a very short history of illness, (6) a history of lymphosarcoma of the superficial glands elsewhere. Differential diagnosis of the lesion requires consideration of all benign and malignant tumors of the stomach and small bowel, foreign bodies in the stomach, and the more rare types of gastric lesions such as gastric lues, leukemia, Hodgkin's disease and tuberculosis.

Pathology

It may be suspected at the operating table that the gross specimen could possibly be a lymphosarcoma because of the relatively extensive involvement of the submucosa in the absence of any large ulcerating areas. A bulky tumor should lead one to suspect this diagnosis. This is characteristic of the lesion—significantly so, in the presence of extensive regional lymphatic spread in the retroperitoneal lymph nodes as well as the preaortic and regional nodes. The spleen also is frequently a site of involvement.

Microscopically there are, in general, two forms of the lesion, and this provides some suggestion as to the estimation of prognosis. The two types are the small-cell type and the reticulum-cell type. The small-cell type will respond much more favorably to irradiation. The reticulum-cell type will respond but, in general, the prognosis is much worse. The reticulum-cell sarcoma may occur as an isolated lesion and a radical removal of such may result in an apparent cure.

Treatment

One point needs stressing—one which occasionally may seem too simple to elaborate upon, but which does occur. That is the occasional surgeon who feels that a lesion is so inoperable at laparotomy that biopsy is not necessary, and finds, at autopsy, that this was a lymphosarcoma which might have been extremely sensitive to irradiation. No matter how extensive a lesion may appear at the operating table, biopsy should be taken. The accepted treatment of this, of course, is resection if possible, even though the lesion appears to be very extensive; the major portion of the lesion should be removed, especially if it is an obstructing neoplasm. As is often the case, the surrounding lymph nodes can be irradiated and an apparent cure or at least a remission of the disease may occur for surprisingly long periods. Although

there have been a few reports in the literature of survival for long periods with irradiation, alone, the danger of post-irradiation perforation or hemorrhage must be considered, especially with the involvement of a hollow viscus.

Palliative procedures with postoperative irradiation frequently give a surprisingly good outlook. The nitrogen mustards have been reported to be effective in the treatment of gastrointestinal lymphosarcoma. Joyeux et al. have reported three cases in which nitrogen mustards were used and produced a definite retrogression of the tumor especially in regard to its size; however, this was of only temporary relief and all three patients succumbed to the disease in a relatively short time. In one of the cases they felt that the death of the patient was precipitated by the treatment, even though the tumor decreased in size. They concluded that very early surgical excision was still the treatment of choice for lymphosarcoma of the digestive tract.

Prognosis

In general, one can say that gastric lymphosarcoma has a much better prognosis than that of gastric carcinoma, and this is probably due to the fact of its radio-sensitivity, whereas gastric carcinoma, as we all well know, responds very poorely to radiation. Lymphosarcoma of the small bowel and colon carries a relatively poor prognosis. Five-year survivals in involvement of the stomach are surprisingly numerous. The type of cell in the lymphosarcoma also determines, to a great extent, the relative life expectancy because the small cell lymphosarcoma is much more radio-sensitive and responds better than the reticulum cell sarcoma.

Madding and Walters reported forty-one cases of lymphosarcoma, and in their series the reticulum cell sarcoma offered a postoperative life span of three and thirty-eight hundredths years. Postoperative x-ray therapy in this particular pathological type did not increase the life expectancy. Those with nodal involvement had a life expectancy of two and seventy-nine hundredth years as contrasted with the life expectancy of four and eight hundredth years in those cases without apparent lymph node extension. They also reported that in the small-cell lymphosarcoma gastric resection alone in the treatment offered five and six hundredth years. Their experience with irradiation postoperatively did not alter these results.

Comments and Summary

Lymphosarcoma of the gastrointestinal tract, in general, occurs in younger people in good general health, whose symptoms are somewhat vague and non-conclusive but are of relatively short duration. Physical examination usually does not add anything to a specific diagnosis. Laboratory findings are of no value. The radiologist does offer some help in that the lesion may appear rather extensive at the screen with very little demonstrable ulceration of the mucosa. This also can be suggested to the clinician by the gastroscopist.

Diagnosis is usually made by biopsy at the operating table, and treatment should be carried out at that time if at all possible, removing as much of the lesion with radical resection, if feasible, or removing obstructing lesions as a palliative measure in hopes that postoperative irradiation may be of value in eradicating the remainder of the disease. Despite the extensive appearance of any neoplasm at the operating table, biopsy should be taken in hopes that the microscopic appearance may reveal a lymphosarcoma that will be responsive to irradiation. Postoperative irradiation is generally accepted as good complimental therapy.

The prognosis in this disease, although not good, does provide a longer life expectancy than most malignant neoplasms of the gastrointestinal tract. Many cases of isolated lymphosarcoma have been cured, and certainly the life expectancy with appropriate treatment of surgery, followed by irradiation, can give the patient a much better outlook than other malignant neoplasms of the gastrointestinal tract.

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The Metastatic Carcinoid Syndrome

Report of a Case

By Richard C. Bates, M.D. and
Leo W. Walker, M.D.
Lansing, Michigan

SINCE the case report of Biörk, et al[1], and the indepedent report of two cases by Rosenbaum and associates[2] in 1952 and 1953 respectively, the literature on a bizarre syndrome produced by metastases from carcinoid of the bowel has grown rapidly. By 1954 Thorson, et al.[3] were able to review sixteen cases, describe almost all the clinical features of the syndrome and postulate, as has been subsequently proven, that many of the peculiar clinical features of the syndrome might be due to production of excessive amounts of serotonin (enteramine, 5-hydroxytryptamine) by the tumor tissue.[4,5] Thus a new member has been added to the small group of malignant neoplasms that produce endocrine secretions in their metastases. Great interest has been stimulated by the physiologic effects of serotonin, which is somewhat similar to histamine and epinephrine, the production of lesions of the heart valves, and the unusual clinical appearance of these cases.

So far, at least fifty-eight cases have been reported in Sweden, Switzerland, Great Britain and the United States [1-14] to which we wish to add another.

The features of the syndrome include peculiar venous telangiectases of the face "the color of a concord grape"[5]; generalized cyanosis occurring in flushes with "islands" of red blotches in the "blue sea" of the skin[3] associated with transient hypotension; enlargement of the liver; heart murmurs associated with the development of pulmonic stenosis and tricuspid insufficiency; peptic ulceration, gaseous indigestion, abdominal cramps and frequent loose bowel movements; respiratory distress simulating bronchial asthma; pellagra-like lesions of the extensor surfaces of the extremities; dependent edema; joint lesions similar to rheumatoid arthritis; cachexia and death. Mental changes of the type seen in psychoneurosis have been described in a few cases.

Case Report

The patient, a fifty-year-old white man, was admitted to the hospital on October 26, 1953, complaining primarily of weakness and shortness of breath. His illness began in 1950 with indigestion, thought by a physician to be due to a "liver ailment." Blueness of the face was first noted in 1950. In May, 1953 he developed attacks of exertional dyspnea, accompanied by severe pain along the left sternal border radiating to the shoulders and a cyanotic flush, lasting from fifteen to twenty minutes. In August, two months before admission, anorexia appeared and resulted in the loss of 30 pounds in body weight in a period of six weeks. With this, fatigue, orthopnea, swelling of the ankles, and diarrhea up to twenty-four stools daily appeared. The stools were described as light yellow and watery and were observed to float on water. The patient, himself, had observed the appearance of a mass in the abdomen during this time. In infancy he was said to have had one attack of cyanosis, but his past and family histories were otherwise not helpful.

On examination the temperature, pulse, and respirations were normal, but the blood pressure was 98/72. The appearance of the face was most striking in that there were large dilated blue venules appearing like cyantoic telangiectasia in the butterfly area over the cheeks and nose. Cachexia was evident but the patient was in no acute distress. The heart was borderline in size with an organic, Grade 2 systolic murmur along the left sternal border transmitted to the apex and a diastolic murmur in the tricuspid area. The liver was enlarged 18 cm. below the right costal margin and was palpably nodular, firm, but not tender. In the lower extremities, 2+ edema was present up to the knees, with brawny induration and hyperpigmentation of the skin.

Examination of the blood revealed 4.31 million red cells and 14,050 white cells/cu.mm. with a differential count of 62 per cent polymorphonuclears, 28 per cent lymphocytes, 5 per cent monocytes, 4 per cent stab cells and 1 per cent eosinophiles. The hemoglobin was 13.4 gms. (86 per cent) and the red cells and platelets appeared to have normal configuration. In the urine there were 2+ albuminurea, 10 white cells/h.p.f. and occasional hyaline and granular casts. The Van denBerg test was within normal limits but the cephalin flocculation reaction was 3+. The prothrombin time was normal. The alkaline phosphatase was elevated to 15.4 Bodansky units. Chest x-ray examination with fluoroscopy showed pulsations in the left pulmonary artery, but not the right, with no evidence of parenchymal lung disease or cardiac enlargement. Barium studies of the upper and lower gastrointestinal tracts demonstrated only the presence of an enlarged

liver. Stool cultures were negative for *B. typhosus,* Salmonella, and Dysentery groups. Electrocardiograms showed the mean QRS axis to be normal with large complexes over the septal region and inversion of the T waves in leads 2, 3 and aVf. Later tracings showed a generalized decrease in voltage.

Anorexia and weight loss with numerous loose brown stools and crampy abdominal pains after ingestion of even small quantities of water led to an abdominal laparotomy performed by Dr. Ralph Wadley on November 13, 1953. The liver was enlarged to below the umbilicus and was studded with hard irregular nodules measuring up to 1 cm. in diameter. A biopsy was taken from two separate nodules.

Microscopic examination of the liver biopsy specimen revealed a metastatic new growth (Fig. 1). The cells of this new growth were small and polyhendral in shape and exhibited a striking uniformity in size, shape, and in staining qualities. The nuclei were uniformly dark-staining and the cytoplasmic borders were indistinct. Only a very occasional mitotic figure was found. The cells were closely packed and arranged in solid masses and in anastomosing columns separated by narrow bands of dense hyaline connective tissue. In a few areas there was an acinar architecture and in other areas there were small atypical glandular structures. The adjacent liver tissue around the new growth exhibited fatty degeneration. The new growth was characteristic of a carcinoid (argentaffinoma or argentaffin carcinoma). The most likely site for the primary growth was considered to be in the gastrointestinal tract.

The skin lesions continued to be striking during the entire course of his illness, and in addition to the facial changes mentioned above, he experienced attacks of generalized bluish discoloration, particularly under excitement or exertion. When the blue areas were subjected to light pressure, they cleared and were replaced with a coral pink tint giving the appearance of "islands of red in a sea of blue." Rheumatoid arthritic changes appeared in the joints of the hands and attacks of dyspnea associated with expiratory wheezing were noted.

At the patient's insistence, irradiation therapy was given over the liver, but no benefit was apparent. The radiologist observed that the skin was unusually resistant to irradiation. He declined steadily and died January 8, 1954.

Autopsy Findings.—The subject measured 179 cm. in length and weighed about 110 pounds. Cachexia was extreme. Minute hemorrhagic areas appeared as a fine punctate rash over the face. Edema of the legs and irradiation changes over the right upper quadrant were noted. One thousand cc. of straw-colored fluid were present in the right pleural cavity. The heart weighed 225 grams and the right ventricular wall was 8 to 10 mm. in thickness with definite hypertrophy of the muscle. The tricuspid valve showed nodular thickening of the leaflets and the pulmonary valve was stenosed so that it would admit only the tip of the index finger. The pulmonary cusps were greatly thickened and fixed. There was no calcification of the tricuspid valve leaflets or pulmonary valve cusps. The aortic and mitral valves were normal. There were no congenital cardiac defects.

One tumor nodule was present in the right lung. It measured 5 mm. in diameter and was subpleural in location. In the abdomen, the liver was greatly enlarged, weighing 3,150 grams, and was studded with tumor nodules measuring up to 4 cm. in diameter. The primary tumor was found in the ileum, 183 cm. from the ileocecal valve (Fig. 2). It measured 18x20 mm. in diameter. It was elevated above the surrounding mucosa 5 to 10 mm. On section it was gray-white in color and very firm in consistency. It extended through the complete thickness of the wall of the bowel and into the serosa. The regional mesenteric lymph nodes were enlarged up to 2 cm. in diameter and, grossly, showed replacement by gray, white, firm tumor tissue. The appendix showed scarring and obliteration of the lumen. There was no gross evidence of a carcinoid of the appendix. No tumor tissue could be seen in the pancreas by gross examination. The peripancreatic lymph nodes were greatly enlarged and were replaced by tumor tissue.

Microscopically, the tricuspid valve leaflets and the pulmonary valve cusps were greatly thickened, due to fibrous tissue, within which there were occasional dilated blood spaces (Fig. 3). Verhoeff's elastic tissue stains revealed the valve leaflets and cusps to be overlaid with this fibrous tissue. The ventricular and atrial endocardium around the valve rings was similarly thickened (Fig. 5). The collagen and elastic fibers were intact and this fibrous tissue appeared to be deposited on the valves. Both surfaces of the valves were involved. No elastic fibers were demonstrated in the fibrous tissue. There was much intercellular ground substance. There were no inflammatory cells. There was no calcification. The findings in the valves were the same as those recently demonstrated by McDonald.[13]

The tumor and its metastases in the liver, lungs, mesenteric and retroperitoneal lymph nodes, and pancreas, all showed the typical appearance of carcinoid with a positive reaction on silver stains. The new growth in the ileum was seen to be arising within the mucosa (Fig. 4) and was infiltrating the submucosa and muscular wall and extending into the serosa. There was no evidence of the new growth in serial sections of the appendix. The fact that carcinoids tend to be multiple in origin was considered, but the new growth, in all of the locations other than the ileum, appeared to be metastatic in origin.

Discussion

With the exception of the psychoneurotic features which have been reported in only three cases and may not be a part of the syndrome, our case presented all the previously described features. With the knowledge of the existence of this syndrome, the appearance of these patients is so distinctive that they should be diagnosable at first glance. While most of the reported cases, like ours, have been diagnosed in retrospect, sev-

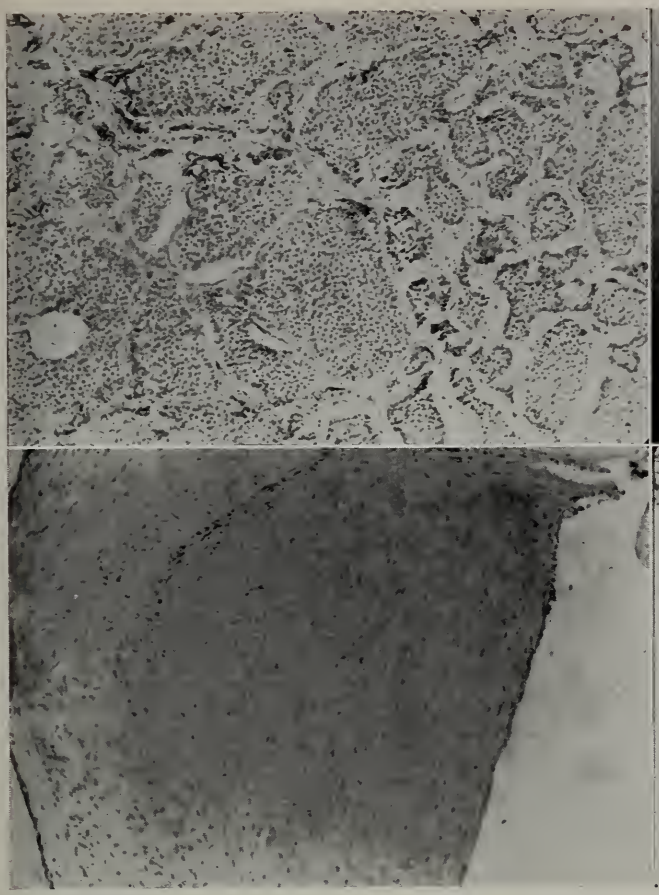


Fig. 1. *(left above)* Liver biopsy (H. and E. stain, x 80).

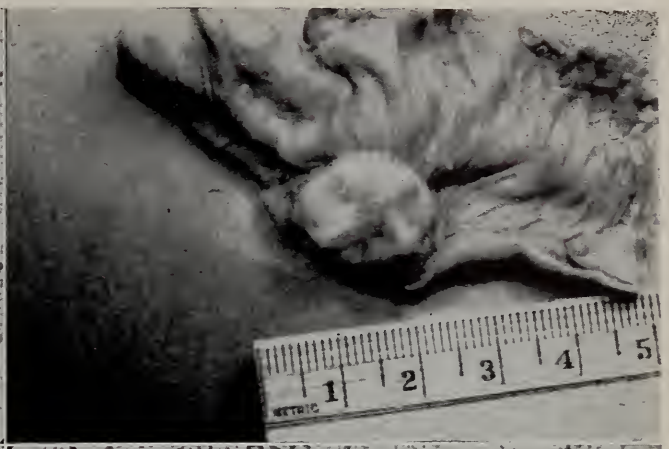


Fig. 2. *(right above)* Tumor of ileum.

Fig. 3. *(left below)* Pulmonary valve cusp (H. and E. stain, x 80).

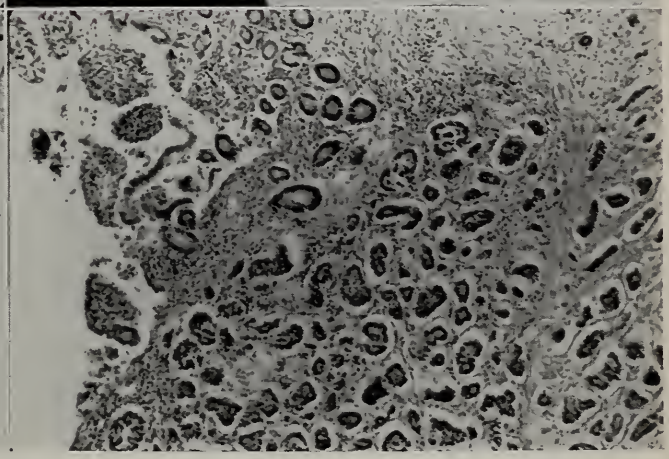


Fig. 4. *(right below)* Tumor of ileum. Normal mucosa at bottom on right. (H. and E. Stain, x 80).

eral have been correctly diagnosed as having metastatic carcinoid from the presence of the flushes alone. Once suspected, one may carry out a simple urine test for the urinary metabolite of serotonin, 5-hydroxyindoleacetic acid (5-HIAA), for confirmation.[16]

While the metabolism of serotonin from tryptophane has been worked out[4] and the physiologic action of this material has been observed, the exact mechanisms for production of the many clinical features of this syndrome remain a subject of discussion. The skin changes and asthma are thought to be a direct result of the action of serotonin on the smooth muscle of cutaneous blood vessels and bronchioles. We have observed similar skin changes of a milder degree in instances of intense peripheral vasoconstriction and shock resulting in cyanosis of static blood in the capillaries, which, when pressed out was replaced by oxygenated blood of a pinker hue, giving the appearance of red islands in a blue sea. On the other hand, as pointed out by Branwood and

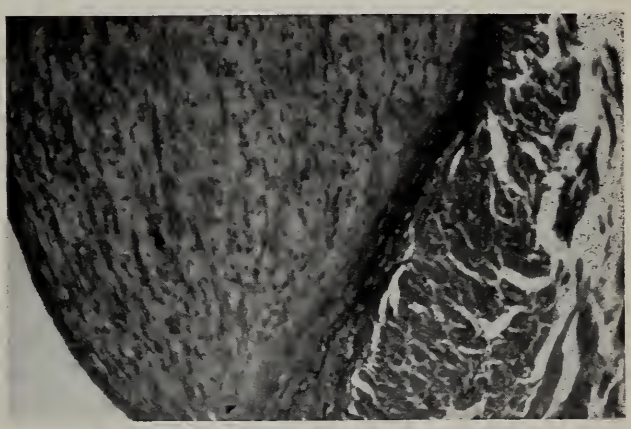


Fig. 5. Thickened endocardium at tricuspid valve ring. Myocardium on right. Note endocardium in center with overlaid fibroid tissue on left. The fibrous tissue does not take the elastic stain (Verhoeff's) x 80.

capillaries, which, when pressed out, was replaced

Bain,[6] Peacock in 1866 observed that, when cyanosis occurred in pulmonic stenosis, the skin was a reddish hue. Further, if vasoconstriction is the sole source, the concomitant hypotension remains unexplained.

The diarrhea could be due to the mechanical effects of the tumor, but since the primary lesion is invariably small and may antedate the metastases and diarrhea by many years, two alternative explanations have been offered: (1) serotonin causes increased peristalsis, or (2) excessive consumption of tryptophan, a precursor of niacin, by the tumor for the production of serotonin results in pellagra of which the diarrhea and skin changes are features.

Most puzzling and stimulating are the changes in the valves of the right side of the heart. It has been suggested that these are in some way a direct effect of serotonin on the valves, and that subsquent passage of the blood through the lungs reduces the concentration of the hormone so that the left heart valves are not similarly affected. An instance of a patient with coincident patent foramen ovale who did develop lesions of the left heart valves has been mentioned in support of this theory.[4]

So far, the arthritic changes occurring in a few patients remain unexplained but offer an interesting lead for investigation into a possible factor in the etiology of rheumatoid arthritis.

Serotonin is known to affect brain function, but mental changes have only been described in a few cases and since they gave the appearance of psychoneurosis rather than organic brain disturbances, these changes are possibly coincidental due to the emotional impact of a severe illness upon poorly adjusted individuals.

In addition to the puzzling physiologic features of this illness, there are some unusual pathologic aspects. The vast majority of carcinoids (90 per cent) occur in the appendix,[13,17] metastasize only locally and have not, so far, been reported as causing this syndrome in a single instance. The reported cases with autopsy invariably show widespread metastases to liver with, in many instances, pancreatic, ovarian and adrenal involvement as well. Serotonin is destroyed by the normal liver, so it is thought that metastases in the liver sufficient to destroy part of its function while producing serotonin which can escape the liver, are a necessary feature. One instance of a metastasis in the testis which was removed with total but temporary relief of the flushes[8] supports this. An alternative explanation is that carcinoid arising in the appendix is somewhat different from that arising in the small bowel.

Summary

Report is made of a case of the metastatic carcinoid syndrome presenting almost all the previously described features of this new entity. Clinical and pathologic features are described, along with a discussion of current theories as to their physiologic origin.

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Malignant Melanoma

Clinical and Pathological Behavior in 127 Cases

By J. L. Ponka, M.D.
D. M. Evans, M.D.
and J. H. Wylie, M.D.
Detroit, Michigan

ALTHOUGH malignant melanoma[1] is not very common, it is a neoplasm that continues to present clinicians with problems of diagnosis and treatment. For purposes of orientation it would be well to refer to the classification of nevi as offered by Allen and Spitz,[1] as follows:

Benign

1. Intradermal nevus (common mole)
2. Junctional nevus
3. Compound nevus
4. Juvenile melanoma
5. Blue nevus (Jadassohn-Tièche)

Malignant

1. Melanocarcinoma (from junctional nevus or compound nevus)
 (a) Superficial
 (b) Deep
2. Malignant blue nevus

We cannot go into the pathological features in any detail, nor can we dwell upon some of the controversial features involved in the pathology, but a few comments are in order regarding some of the more widely accepted concepts. It is agreed generally that common moles or intradermal nevi do not undergo cancerous change. Many pathologists and dermatologists agree on this point and state that they have never seen such a change. They are not commonly found on the palmer aspects of the hands, soles of the feet, or genitalia.

Junctional nevi tend to be flat, smooth or slightly raised, and of varying shades of brown. They may occur in the skin, or in the mucous membranes of the body. Pigmented lesions on the genitalia, plantar surfaces of the feet, palms and digits should be considered as junctional. These are located entirely within the epidermis and are characterized by: a loss of cohesion of cells beginning with the basal cells and extending progressively to the outermost layers of the epidermis, a vacuolization and loss of prickles of the involved epidermal cells, and a scattered and increased melanin pigmentation and Dopa positively (Allen and Spitz[1]). By "compound nevus" is implied the presence of an intradermal nevus and an overlying junctional nevus of the epithelium. It is well known that the moles of children may be indistinguishable from the malignant melanoma of the adult. However, their clinical behavior in children is one of benignancy. It is indeed rare for one of these lesions to show malignant behavior.

The blue nevi occur on the buttocks and the dorsal aspects of the hands and feet. They are found less commonly on the face. Their color is the result of the melanin present and their location in the epdermis.

Finally, Couperus and Rucker[2] have pointed out that a melanoma can be considered malignant if the following features are present in addition to junctional changes: inflammatory infiltrate at the periphery of the lesion, more than an occasional mitotic figure, giant cells with a single bizarre nucleus, marked pleomorphism, general enlargement of all tumor cells, and tumor cells and mitoses in the epidermis.

Our particular interest in this malignancy was stimulated by two features which it manifests—its capricious behavior and its high degree of fatality. We wondered why it carried such a dismal prognosis when the lesions occurred in areas where they could be seen and treated early. We recognize that others have long since made similar observations, but we believed that our 127 cases (accumulated over a period of twenty-five years) might lead to some interesting data.

Some of these patients came to us after having initial treatment elsewhere. Others went to other hospitals and clinics for their care after having been seen in our hospital. These patients, when confronted with the gravity of their problem, are inclined to seek the advice of several different physicians with varying types of training.

The sex incidence requires only the briefest

From the Department of General Surgery, Henry Ford Hospital, Detroit, Michigan.

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comment. Approximately half of the cases were in male patients. This same observation has been made many times. Sixty-seven of our cases were male and sixty were female patients.

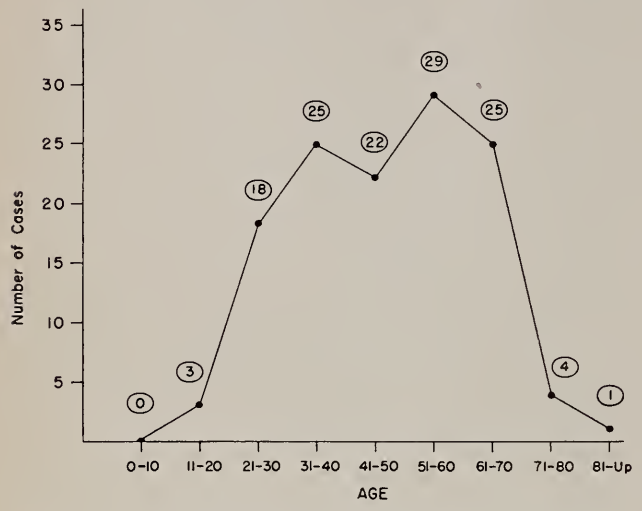


Fig. 1. Age distribution of malignant melanoma.

The age incidence cannot be stated so simply. In our series we found no cases in the pre-pubertal ages. This does not mean that they do not occur, but rather that they are infrequent in pre-pubertal children. This opinion is more substantially confirmed by the report of Allen and Spitz.[1] They found only five instances of melanocarcinoma in children in 934 cases which they studied most carefully. The age distribution of our group is shown in Figure 1.

Chief Complaint

We became interested in what it was that first caused the patient to seek the advice of a doctor. Seventy-one patients (56 per cent) complained of a "mole." It must be emphasized that patients used different adjectives to describe the presenting lesion. The patients' vocabulary yielded such terms as "dark spots," "growing spots," "bleeding moles," "birth marks," "dark lump," "red spots," and simply "growths." Other terms applied by the patients include "ulcer," "blister," "cyst," "wart," "pimple" or "tumor." We fear that too often the patient's complaint was considered to be a diagnosis. More particular attention was directed to a history of bleeding, growth, repeated injury and color change. These complaints were present in some form in 54 per cent of the cases in this series. Such complaints could be expected

TABLE I. LOCATION OF MALIGNANT MELANOMA IN 127 CASES

Eye		14
Skin		101
	Head and neck	25
	Trunk	23
	Upper extremities	12
	Lower extremities	41
Mucous membranes		4
Central nervous system (meninges)		1
Primary undetermined		7
Total		127

TABLE II. TIME INTERVAL BEFORE SEEKING TREATMENT

	Patients
At once	25
7 to 12 months	41
13 to 18 months	21
19 to 24 months	13
25 to 36 months	9
After 37 months	12

to arouse the suspicion of the clinician to the fact that he is dealing with an unusual and perhaps serious lesion. Some of our patients had interesting, if not unusual, complaints. One young man was rejected from military service because of "a spot on my lung." Studies failed to reveal the primary lesion for a long period of time, which was finally found on his heel. Three other patients had gastrointestinal symptoms; one with a primary esophageal neoplasm had dysphagia, another with a rectal lesion had constipation, and a third had intestinal obstruction (he had an intussusception caused by a metastasis to the ileum).

Headache and convulsions are seen as a result of intracranial spread. We have seen two patients with a picture of sepsis, including chills, fever, malaise, and expectoration of frothy sputum, following widespread metastases. These cases presented a real problem in differential diagnosis.

The skin proved to be the site of the most frequent involvement, particularly about the plantar area of the feet, about the toes, the palms, the head, neck and back, and in subungual areas. The eyes showed a fair incidence, with involvement of the uveal tract. None of our cases involved the genitalia, primarily. The mucous membranes were the origin of the malignancy in four instances, all of them patients expiring within one year. The striking feature to be noted is that malignant melanoma makes its first appearance so often in areas that are readily visible and quite accessible to examination and observation, and yet it carries such a poor prognosis.

Sixty-six patients were seen within the first

TABLE III. SUMMARY OF INITIAL TREATMENT

	Patients
Local excision	58
Enucleation of the Eye	13
Cautery (Electrical, Chemical with Silver Nitrate and Nitric Acid)	12
Irradiation	10
Biopsy	10
Excision with Skin Graft and Regional Lymph Node Dissection	10
Application of Ointment	4
Wide excision with Skin Graft	4
Incision and Drainage	3
Radical Mastectomy	1
Freezing	1
Aspiration with needle	1
Injection	1

Note: Some of these patients received more than one type of treatment, hence the discrepancy in the statistics.

year after the onset of bleeding, color change, growth or tumor formation. Thus, half of the patients present themselves for treatment within the first twelve months. These facts should be correlated with the next chart, which describes or lists the type of treatment that was given initially.

Initial Treatment

This was carried out in the office of the general practitioner, radiologist, general surgeon, plastic surgeon, dermatologist, orthopedist, and in large university hospitals and in clinics. Some were treated by osteopathic physicians originally. This knowledge will help us to understand the great variation in treatment.

We are presenting this list of early treatments for two reasons: (1) to show that there was a lack of appreciation of the nature of the local lesion and (2) to indicate that there is some uncertainty as to what constitutes a good local treatment.

Effectiveness of Local Treatment

When we try to evaluate the effectiveness of the initial local treatment, we should consider the frequency of local recurrence. Of course, in a far advanced local lesion, the process will be difficult to control regardless of the fact that very radical treatment may have been employed. In this series there was a failure to control the primary lesion in fifty-three cases (42 per cent of the total). Preston et al.,[3] also found that when initial treatment failed to control the primary lesion, the five-year survival rate was poor (one among fifty-eight patients). Irradiation was just as unsuccessful in their series as it is in the present series. Inadequate local excision, cautery (chemical, with silver nitrate and nitric acid), irradiation (x-ray and radium), application of ointments, freezing, aspiration and injection treatments all contributed to this poor result.

At least 23 per cent of the cases received inadequate initial local treatment by all standards.

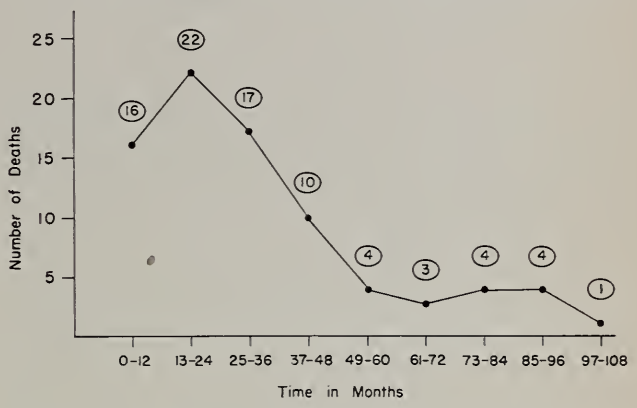


Fig. 2. Deaths following onset of malignant meloma.

Total Excision Urged

Biopsy may be necessary in some cases, but we would urge that the lesion be excised in its entirety, rather than partially. Microscopic examinations should always be done on the specimens.

Where Do Metastases First Occur?

Since there is a failure to control the local lesion in so many patients (42 per cent of this series), we thought it would be of interest to consider metastatic lesions. This might give us some information of value in planning further treatment. In order of frequency, we found metastases most commonly in the inguinal, cervical, and axillary nodal areas. Generalized metastases were present in twenty of the patients when first seen, and terminal care only was given to these.

Results.—Sixteen of our patients expired of their disease within the first year (Fig. 2). Two of these had intracranial metastases, three had lesions involving the mucosa (rectal, oro-nasal and esophageal). One expired of heart failure. Eighty-four of our patients are known to be dead. Four died of unrelated causes. Only one case out of 127 has been lost to follow-up. Forty-three patients are still alive, but twenty-two have been followed for less than five years. Since the mortality rate is so high during this period, and our series relatively small, we are unwilling to draw any conclusions as to the effectiveness in controlling this highly malignant process in cases followed for less than five years. We already know that

TABLE IV. PROCEDURES CARRIED OUT ON SEVENTEEN CASES SURVIVING FIVE YEARS OR LONGER

Local excision only	7
Enucleation of eye	2
Local excision plus inguinal lymphadenectomy	3
Local excision plus axillary node dissection	2
Radical mastectomy	1
Amputation of thumb	1

five patients are still alive, but have residual disease. This leaves only sixteen patients (13 per cent) living after five years, and presumed to be free of their disease.

In this series approximately, one half of the patients had some form of local excision and comparatively few had early radical procedures. Later in the disease, a variety of radical procedures were carried out. It is when the disease is widespread, that the patient, his family, and his doctor are willing to consider such procedures as amputation, quarterectomy, extensive excision with skin graft, and regional lymphadenectomy. Three of our cases had major amputations and all three did poorly because of the advanced nature of their disease. Others had late regional lymphadenectomy with re-excisions of the local areas, and in a few, skin grafts were done. These patients generally did poorly, but there was palliation in some. For instance, in some cases large tumor masses were excised with relief of local discomfort.

Recently we have adopted a more radical approach to the problem, but our series is small and of short duration. No conclusions are warranted. However, Pack[4] points out that prior to 1940, the ten-year definitive cure rate was 12 per cent. After that, they adopted radical surgical treatment. In a total of 1,190 cases of malignant melanoma he found that the five-year survival rate was 14.1 per cent when the nodes were positive for metastases, and 40.5 per cent for those with lymph nodes free of metastases. McCune[5] treated forty cases of melanoma with surgical excision and regional node dissection. When the nodes were positive, there were two survivals out of twenty-three cases, whereas all seven patients without palpable lymph nodes lived at least six years after radical block dissection of the regional glands.

Autopsy Findings.—We were impressed by the metastases in this malignancy. There were twenty-two autopsies in this series. Table V lists the organs involved and the number of times metastatic tumor was found.

TABLE V. ORGANS SHOWING METASTATIC TUMOR IN TWENTY-TWO AUTOPSIES

Lymph nodes	20
Liver	15
Lung	18
Skin	13
Pancreas	12
Skeletal system	10
Central nervous system	10
Heart and pericardium	10
Adrenals	7
Kidney	7

The frequency of lymph node involvement is very great and the distribution among various groups of nodes is extensive. This same finding was noted in the frequency of regional metastases after local treatment. These findings also help us to understand why it is that these patients have relatively short survival periods following extension of the process beyond the regional nodes.

Summary and Conclusions

1. Only 13 per cent of our 127 cases of malignant melanoma survived for a period of five years, or longer, without metastases.

2. Patients, as well as the profession, should be aware of the serious implications of such changes as growth, bleeding ulceration and color changes when seen in connection with pigmented skin lesions.

3. Inadequate local treatment in this series is reflected in the results. Forty-two per cent of these patients had local recurrences after initial treatment.

4. Treatment with x-ray, cautery (chemical or electrical), incision and drainage, freezing, injections and ointments is condemned.

5. Excision biopsies are encouraged. Microscopic examinations should always be done.

6. We encourage wider resections of the initial lesions.

7. We believe that the scope of the operative treatment should be expanded to include the regional lymph nodes, since they are so often the site of secondary involvement.

8. Another error often made is that radical surgery is not carried out early enough.

(References on Page 617)

Cancer of the Breast

By Max Cutler, M.D.
Beverly Hills, California

CANCER OF THE BREAST is not only the most important of the major forms of cancer, it is also one of the most treacherous. Fortunately, however, the disease lends itself to a reasonable degree of prevention and early diagnosis.

Although radical mastectomy with or without postoperative radiation is the accepted method of treatment for presumably operable mammary cancer, this view has been challenged in recent years. It has been suggested that simple mastectomy followed by a special type of radiotherapy has certain advantages. This subject is in a state of controversy.

Another development in recent years has been the extension of the surgical procedure to include removal of mediastinal lymph nodes. This development also is at present in a controversial state. There is an increasing tendency to avoid the use of prophylactic postoperative radiation as a routine procedure. Efforts to control advanced and metastatic carcinoma of the breast with steroid hormones have been partially successful and form a subject of active research.

The most interesting and perhaps the most important phase of the problem of mammary cancer is related to the so-called precancerous lesions. Cystic disease of the breast, papillomata and so-called Schimmelbusch's disease—commonly regarded as precancerous lesions—require clarification. An effort is made in this presentation to interpret the significance of these lesions and to indicate the proper course of treatment.

"Precancerous" Lesions

There is, perhaps, no organ in the body which has afforded a greater opportunity to study precancerous states than has the mammary gland. The removal of this organ for various pathologic conditions that precede cancer has supplied important data which have given us an opportunity to study its pathology in great detail. The technique of cutting whole serial sections by the giant microtome, as first introduced by Sir George Lenthal Cheatle, of London, has further enhanced our knowledge of breast pathology, particularly because this method enables us to study the topographic distribution of disease in a way which the small section method does not allow.

A mass of clinical, pathologic, and experimental data has accumulated which clearly indicates that cancer, in general, and cancer of the breast, in particular, are not sudden events or accidents in previously normal tissues. On the contrary, it would seem that cancer as a rule is the end-result of a series of changes which may have begun many years before. In the breast it has been possible to demonstrate a series of interrelated and consecutive tissue changes which progress slowly over a period of many years. Mazoplasia is not a step in this pathologic process, and the first microscopic evidence of the changes which ultimately lead to cancer is the formation of microscopic cysts. The epithelial hyperplasia which leads to cyst formation may stop, and the breast may remain purely cystic throughout the life of the individual, but in a considerable proportion, the hyperplasia continues and sooner or later becomes complicated by the advent of the neoplastic process or the formation of papillomata. The combination of cysts and papillomata gives rise to a condition known as Schimmelbusch's disease. Again, a breast which is the seat of Schimmelbusch's disease may remain so throughout the lifetime of the individual, but in a considerable proportion of cases the epithelial change progresses, and at some point in this process epithelial cells invade outside boundaries and cancer is established.

The evidence leads me to believe that cysts and papillomata are precancerous or potentially cancerous states. These terms imply that if the epithelial changes associated with these conditions progress, cancer is the inevitable consequence. I fully recognize, however, and admit that the epithelial changes may regress at any point and disappear, or that they may be arrested and remain stationary throughout the lifetime of the individual, but I

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From the Surgical Staffs, Cedars of Lebanon and St. Johns Hospitals, Los Angeles; formerly Director of the Chicago Tumor Institute.

insist that if they progress, carcinoma is finally established. By the designation "pre-cancerous" I do not mean that they inevitably become cancerous, but that they are potentially cancerous. It is also important to emphasize at this point that the events which have been described may occur with varying degrees of rapidity. Many of these changes require as long as thirty or even forty years to develop. At the other extreme, however, the process may be very rapid; in fact, it may be so rapid as to end in cancer without leaving any discernible trace of the previous stages through which it has passed. In the latter examples, one cannot be absolutely certain whether cancer has arisen by this process or by another unknown method.

Cystic disease of the breast is usually diffuse and often bilateral. These facts were especially emphasized by Reclus, and the condition is now usually designated as Reclus' disease. In many instances, one cyst outgrows its neighbors and reaches a sufficient size to be clinically palpable. In these larger cysts, the epithelium is usually so degenerated as to fail to respond to stimuli, and for this reason cancer rarely complicates the larger cysts. When cancer is discovered in the wall of a cyst it has usually originated in the active epithelium of a duct which enters it and not in the degenerated epithelium which lines the cyst.

It is, in general, not fully appreciated that when a cyst is clinically palpable as a single lesion it is almost invariably surrounded by numerous smaller cysts that are too small to be palpable. It should be noted also that microscopical cysts are potentially more dangerous than the large, palpable cysts. The common error that is committed in an effort to practice conservatism is to perform a limited excision of the palpable cyst which is innocent, and not remove the surrounding smaller cysts which are more likely to be complicated by the cancerous process. In the treatment of cystic disease of the breast, excision of the affected segment rather than local excision of the palpable cyst should be practiced.

Clinical Considerations

The well known tendency of cancer of the breast to disseminate early and widely renders this disease one of the most malignant of all the types of cancer with which we are familiar. Pending the acquisition of a more intimate knowledge concerning the etiologic factors in the origin of mammary cancer, the most important practical problem that confronts us is the question of early diagnosis. It is an unfortunate circumstance that cancer of the breast in its early stages is an entirely painless disease. In fact, it is well known that mammary cancer may proceed through a considerable part of its natural course and reach an advanced stage without causing pain. In my experience, it is because of this fact that most women fail to consult their physicians in the early stage of the disease. The medical profession teaches the laity to consult a physician the moment a palpable tumor appears in the breast. But actually, once a tumor is palpable by the patient, the disease has already reached an advanced stage. Efforts to circumvent this difficulty have led in the direction of suggesting periodic examinations, but this problem is complicated as it raises the question of how often a patient should be examined and even though a patient be examined twice annually, a cancer of the breast may have existed for four or five months before a subsequent examination. Perhaps the most fruitful field in the prevention of mammary cancer lies in the recognition, proper interpretation, and treatment of the precancerous states, and immediately I refer to such conditions as papillomata, Schimmelbusch's disease, and Paget's disease of the nipple.

Hemorrhagic Discharge.—A spontaneous, hemorrhagic discharge from the nipple is due either to a single papilloma or multiple papillomata, or may be due to beginning duct carcinoma. In the absence of a palpable tumor, the possibility of the presence of duct carcinoma is remote, although I have observed one example in which this sign, unaccompanied by a palpable tumor, was caused by a microscopic duct carcinoma. In the presence of a palpable tumor, surgical interference becomes clearly indicated. If no tumor can be palpated, transillumination of the breast frequently permits localization of the underlying lesion. When the papillomata are of microscopic dimensions, transillumination fails to disclose them. The treatment of a breast which is the seat of a hemorrhagic discharge from the nipple and in which no tumor can be felt constitutes a difficult and perplexing problem. The choice of treatment depends upon

numerous circumstances, the age of the patient being one important factor. In several examples of this type in which the patients have refused surgical interference I have performed interstitial radiation of the breast. This procedure has resulted in a fibrosis of the lesion and a cessation of the bleeding, and I regard it as a useful procedure in selected cases.

Palpable Tumors.—There is a tremendous variation in the consistency of normal breasts, and the same breast usually undergoes marked changes during various stages of the menstrual cycle. The interpretation of "lumps" in the breast and areas of localized nodularity is indeed a difficult matter. The most important aid in the interpretation of a suspected "lump" or nodularity is to determine by very careful palpation in a sitting and lying position the condition of the remainder of the breast, and also the condition of the opposite breast. Only in this manner can one establish the consistency of the remainder of the mammary tissues, and these findings constitute an important control in the patient who is being examined. The most important finding in a suspected "lump" is the presence of a localized nodularity in one breast which cannot be discovered in any other portion of the breast or in the opposite breast. Localization is the most important clinical finding in suspected lesions of the breast. The discovery, therefore, of several "lumps," or several nodularities, should immediately raise the suspicion that the condition is physiologic rather than pathologic, and that the condition is benign rather than malignant. It is for this reason that multiple masses in, or a multi-nodularity of, one or both breasts is usually the sign of a benign process. It is also of the greatest importance, in examples in which the interpretation of the clinical findings is difficult, to examine the patient at different stages of the menstrual cycle. By this procedure one frequently discovers that certain suspected nodularities have completely disappeared and the diagnosis at once becomes evident. The more common conditions which cause multi-nodularity are: (1) mazoplasia; (2) multiple fibro-adenomata; (3) multiple cysts.

The most important sign of cancer of the breast is the presence of a single, discrete tumor, or a localized nodularity in one breast. The absence of skin adherence and retraction of the nipple cannot be considered as evidence that cancer does not exist. The safest attitude to adopt is to regard a single, localized tumor in one breast of a woman over twenty as cancer until proved otherwise.

Transillumination.—In 1929 the writer first described transillumination of the breast as an aid in differential diagnosis. Other observers who have utilized this procedure have generally agreed that it is a distinct aid in the interpretation of certain lesions of the breast. During the examination, it is essential that the room be absolutely dark and that the transilluminating lamp be sufficiently powerful to penetrate the various lesions that we encounter in the mammary gland. The author has found transillumination a distinct help in the interpretation of the following conditions: (1) in the differential diagnosis between cysts containing clear fluid and solid tumors; (2) in the diagnosis of hematoma of the breast following trauma; and (3) in the localization of duct-papillomata underlying hemorrhagic discharges from the nipple.

The procedure does not differentiate between a benign and malignant solid tumor such as fibro-adenoma and carcinoma. A deep-seated cyst may exhibit all the classical signs of cancer, including adherence of the overlying skin and retraction of the nipple. If the cyst contains clear fluid it will transilluminate clear, and transillumination under these circumstances is a valuable aid in differentiating between the two conditions.

A trauma to the breast may cause interstitial hemorrhage and a resulting hematoma. Frequently the mass that is thus formed exhibits skin adherence and presents the clinical picture of carcinoma. Indeed, the similarity to carcinoma is so striking that mastectomy has frequently been performed for this condition. Transillumination of a hematoma indicates a shadow that is caused by the blood pigment which has a specific appearance. The opacity is intense, irregular, and slowly fades toward the periphery. Based upon these findings alone, I have withheld exploratory incision in a series of cases. Repeated transillumination under these circumstances shows a gradual diminution in the extent and intensity of the opacity and its final complete disappearance. It may require as long as three months for the shadow to disappear. These lesions are uncommon, but, when encountered, present a difficult clinical problem, in the solution of which I have found transillumination of considerable aid.

Transillumination is perhaps most useful in breasts which are the seat of a hemorrhagic discharge from the nipple. In most cases, transillumination discloses opacities which indicate the site and distribution of the underlying lesion. This finding in breasts in which no tumor can be palpated is of considerable help in deciding the therapeutic procedure to be adopted.

The Surgical Removal of the Breast

Although the surgical operation for removal of the cancerous breast is regarded as having been standardized, the differences in the execution of this procedure in the hands of different surgeons are remarkable. From time to time isolated attempts have been made to diminish the scope and extent of the radical operation for cancer, but few authorities upon the subject today are willing to admit the soundness of this tendency. There is little dissension from the view that the surgical procedure must be the radical operation as introduced and developed by Halstead, including the removal of a wide area of skin, the underlying breast, both pectoral muscles, fascia and the axillary contents.

The advent of radiation as a postoperative measure in the treatment of mammary cancer has developed the tendency among some surgeons to diminish the extent of the surgical procedure, particularly as regards the skin. I believe that this is a dangerous position to adopt and that the extent of the surgical procedure should not be influenced by the fact that the patient is to receive prophylactic postoperative radiation. Since the proportion of small, localized growths is on the increase, the problem of skin removal becomes less important, because in the treatment of small lesions adequate skin may be sacrificed and the defect closed after sufficient undermining of the flaps without tension and with no necessity for skin grafting.

Superradical Surgery.—The question of what to do for a patient suffering from a presumably operable cancer of the breast presented no serious problem as late as ten years ago. Radical mastectomy with or without postoperative radiation was the standard and accepted procedure.

Today, this question finds itself in a state of utter and increasing confusion. Opinions of the experts vary all the way from simple mastectomy to radical mastectomy combined with resection of mediastinal lymph nodes, part of the chest wall and sometimes supra-clavicular dissection.

It might be well to ask ourselves—*what has given rise to this situation?* I think there are several factors: One is the improvement in technique and effectiveness of radiotherapy leading to the hope that this might make radical surgery unnecessary. Opposing this factor, is the recent trend toward superradical surgery for all forms of cancer but perhaps the underlying cause is the general dissatisfaction of the results of treatment of this very treacherous disease.

At this point I would like to dispose of the question of superradical surgery for mammary cancer. It is my own firm conviction that the current trend toward superradical surgery for cancer, in general, and for breast cancer, in particular, is a passing phenomenon.

Already, I find, an increasing number of (mature) experienced surgeons have voiced their dissatisfaction with the superradical trend.

Certainly some progress has been made and many patients have benefited from such procedures but as I see the over-all picture, much harm is often done in the failure to use good judgment in selecting candidates for extensive surgery. I think such errors stem mainly from a lack of personal experience with the natural history of the particular form of cancer under consideration and failure to appreciate the formidable differences in the behavior of the many clinical-pathological types of the disease.

Finally, there is the strange (and to me, unacceptable) attitude of justifying a tremendously radical surgical procedure with a high mortality and morbidity involving severe mutilation with only the very slightest hope of temporary help and almost no hope of cure on the basis that there is no alternative and that otherwise the patient will surely die.

In connection with this frantic effort to cure cancer at all costs let me quote Alexander the Great who in the year 323 said, *"I die by the help of too many physicians."* Paraphrased in 1957, this would read, *"I die by the help of too much surgery."*

If we consider some of the major forms of cancer which metastasize early and widely, of which mammary cancer is a classical example, there has to be a reasonable limit of operability and so, viewing the problem from a simple com-

mon sense point of view, I say, you cannot effectively keep chasing cancer cells with a mere scalpel beyond reasonable limits. Let me point out that advances in anesthesia and antibiotics permitting, as they do, longer and safer operations have benefited only a limited group of cancer patients, namely those with growths which remain relatively localized for considerable periods of time. Conversely, these advances have not altered, in the slightest degree, the ultimate prognosis of the overwhelming majority of the major forms of cancer in which widespread metastases almost certainly exist, when ultraradical surgery is considered.

The current practice of performing extensive surgical procedures, such as pneumonectomy for presumably single solitary metastasis is, I think, with rare and isolated exceptions, ill-advised.

William Halsted tried superclavicular dissection combined with radical mastectomy in 200 patients more than fifty years ago and gave it up; and Halsted was not exactly an amateur in this field.

With isolated exceptions radical mastectomy is the most extensive surgical procedure indicated for presumably operable cancer of the breast.

We now pass to the other extreme. *What results can we expect from the most limited surgery for breast cancer?*

Simple Versus Radical Mastectomy.—This leads us to consider the current controversy of radical mastectomy as against simple mastectomy combined with radio therapy as proposed by McWirther.

As we all know by now, McWirther quotes 42 per cent five-year survivals and 25 per cent ten-year survivals in 1882 cases of mammary cancer. These are, of course, impressive figures by an honest, competent observer. McWirther deserves much credit for this bold clinical experiment. At the same time, one must analyze all aspects of the problem carefully in an effort to evaluate the procedure and results.

At this point the writer is forced, reluctantly, into the painfully confusing realm of statistics.

As a medical student I recall vividly a remark of a favorite teacher, the late Dr. John M. T. Finney who followed the great Halsted as Professor of Surgery at Johns Hopkins. Dr. Finney and Dr. Joseph Bloodgood were friendly colleagues but differed drastically on certain procedures. One day Dr. Finney said to the students, *"Bloodgood has his statistics but I have my impressions."*

Untreated mammary cancer yields 20 per cent five-year survivals.

Halsted's introduction of radical mastectomy yielded him 40 per cent five-year survivals and 70 per cent in the group without lymph node invasion.

Daland's statistics in 1927 showed 22 per cent for untreated cases, 42 per cent five-year survivals with radical mastectomy—71 per cent when the axillary nodes were negative.

Since McWirther quotes 42 per cent five-year survivals by simple mastectomy, the problem reduces itself to a comparison of morbidity resulting from intensive irradiation as compared with axillary dissection. This must assume that both procedures are executed in skilled and experienced hands.

Personal experience leads me to say that a careful axillary dissection with observance of elementary surgical principles is remarkably devoid of ill effects. In my experience the rare cases of edema of the arm are invariably complicated by advanced disease along the axillary vessels and is not due to surgical trauma.

The loss of the pectoral muscles aside from the deformity does not lead to any real disability and has not interfered with those of my patients who have wanted to continue such sports as golf, tennis, and swimming. The same freedom from morbidity does not apply to extensive irradiation.

The performance of a correct axillary dissection is accompanied by far less morbidity than intensive irradiation.

I thoroughly approve of continued studies under proper conditions in an effort to further evaluate the more conservative procedure of simple mastectomy, but for the present, it would not be wise to depart from conventional radical mastectomy for presumably operable cancer of the breast.

The Cancer Process

Is it reversible? Certain clinical observations have intrigued me over the years and have raised questions in my mind as I am sure they have in yours. The reason for bringing these before you is that, little by little over the years, these phenomena have changed my conception of the disease and I am wondering whether you, too, have been impressed by what I shall now put before you.

Spontaneous Cures.—It is only in recent years that the writer has been willing to admit that spontaneous cures of proven cancer can and do occur and the medical literature increasingly supports this view. Frequently I have read about such occurrences with the greatest skepticism and disbelief but added experience has left no doubt of their occurrence and furthermore I believe that this event occurs much more often than we have hitherto realized.

Slowly Growing Cancers which, although untreated, last for many years are perfectly well known to all of us and require no further comment to this audience.

Dormant Cancers. There is increasing autopsy and operative evidence of gross and microscopic cancer foci which have lain dormant for many years.

Microscopic evidence of spontaneously regressing foci of cancer is accumulating. It is generally not appreciated that microscopic evidence of disintegrating cancer cells in the blood stream was demonstrated many years ago by Professor Muir of the University of Edinburgh.

Is there a Defensive Mechanism in Cancer? In the belief that an untreated cancer invariably pursues its relentless course to a fatal termination none of us have in the past been too impressed with any possible effective defense mechanism of the body against the growth but when we consider: (1) spontaneous cancer cures; (2) slowly growing and dormant cancers and all the other evidence of regressive phenomena, we begin to realize that a highly effective defensive mechanism must exist and that this mechanism may be playing a far more important role than has been generally supposed. The obvious reason for our distorted view of the cancer-patient relationship is that in this life and death struggle between the body and the invader, when the cancer wins, we see the disease in all its ugly and tragic forms. On the contrary, when the body wins, all traces of the struggle are usually lost, or at least are not conspicuous.

Perhaps one example might be the behavior of blue-black moles. Here is a patient who comes in with widely disseminated melanoma originating in a mole that has been quiescent for many years. Quite naturally all our attention and energy is focused on the clinical tragedy. Now let us consider the many years this mole was present before undergoing malignant change, or let us consider a similar mole that is still clinically benign. It is a curious fact that we are so concerned in trying to determine why the malignant mole changed that we hardly ever ask ourselves—*Why do most moles "stay put"?* Why do the myriads of so-called pre-cancerous lesions in our bodies remain under control—such as are found so often in operative, and especially in autopsy specimens, in all organs—especially the breast, thyroid, prostate and bladder?

The patient who is apparently cured for many years after nephrectomy for a malignant kidney lesion when the surgeon has cut across a cancer thrombus in the renal vein offers a classical example—as does the one with the cured thyroid carcinoma having known vascular invasion.

From all this it is perfectly clear that the body seems well able to control or destroy cancer foci and that its ability to do so is in all probability far greater than we have ever suspected. It is a strange fact that although this conception now seems perfectly clear, so strong has the theory of invincibility of the cancer cell become entrenched that this newer conception has hardly begun to enter the thinking of the medical profession and any adequate discussions of it in the literature are conspicuous by their absence.

It appears to me that in the so-called cancer process we deal with two opposing forces which operate throughout the lifetime of the individual—that what we see as clinical cancer represents the breakdown of the defensive mechanism in some organ. That in the non-cancer groups—e.g., patients who outlive clinical cancer, the defensive mechanism succeeded in holding down the abnormal growth, so that when the patient succumbs to other diseases or to accident, or old age, he dies harboring within his body "pre-cancerous" lesions or dies with undetected cancer. The longer the patient lives, the more likely he is to develop clinical cancer, and directly in line with this theory—when he does, it is usually a slowly growing cancer.

In rare instances the defensive mechanism which broke down and permitted clinical cancer to ap-

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The Benign Peptic Ulcer

The Need for a More Critical Analysis

By M. W. White, M.D.
Detroit, Michigan

THERE IS an urgent need for a more critical evaluation of the benign peptic ulcer problem. The merit of current therapies, medical or surgical, are not consistently satisfactory. Despite careful use of improved anticholinergics, non-hyperalkalemic, non-constipating, non-renal-calculiforming alkalizers and despite dietary observances, et cetera, medical management is not predictably certain of curability. Surgery does not answer the entire problem either because of the many postoperative complications and morbidities. In addition, recurrence of the ulcer may develop postoperatively.

We, as active practitioners, cannot deny the fact that despite advances made in this era of medical progress, the peptic ulcer, gastric or duodenal, still remains one of mankind's most notorious maladies in terms of chronic distress, complications, recurrence and morbidity.

Inconsistent with the guarded prognosis of a peptic ulcer case is the rather consistent acceptance of the prevailing theory of gastric hyperacidity as a major factor in the pathogenesis of the benign ulcer. This hypothesis has continued to influence our thinking throughout the past thirty years despite the multi-variety of existing therapies. In fact, the literature is so abundant in varied and conflicting articles that it is almost humanly impossible to review them all. The theory of gastric hyperacidity tenaciously controls the medical profession's thinking when failure in therapy is rationalized as patient carelessness or neglect. On many occasions the responsibility is transferred to the psychiatrist, blaming increased acidity on cephalic overstimulation.

The surgeon is likewise anxious to blame his failures or morbidities on other factors; psychoneurotic patient, recurrent symptoms merely gastritis now, insufficient stomach removed, et cetera. For a while, exhuberant surgeons were doing almost total gastrectomies, but because of the increased morbidity and poor results, this procedure has recently been abandoned. At present, unprecedented numbers of gastric resections are being performed throughout the continental United States in treatment for the gastric and duodenal ulcer. It is not unusual to read articles reviewing anywhere from 500 to 1,000 resections performed by one particular individual or clinic group. If it were possible to total the exact number of resections done for the benign ulcer during the past five years the results might well be astounding.

Surgery is certainly necessary for life-saving indications. One must open-mindedly question, however, whether such quantities represent surgical emergencies or elective recommendations, the latter being a means of removing the acid producing portion of the stomach since presumably, medical management has failed. Recently, surgery too has been urgently advised and undertaken for most gastric ulcer cases that do not respond promptly within a six-week medical regime. The suspicion that prevails is that such an ulcer might be malignant and it is better to resect than to overlook one case. Out of 100 gastric ulcers surveyed by J. H. Geddes,[1] thirty cases were resected and only one was found to have a carcinoma. With a surgical mortality rate of 3 per cent and a morbidity rate of 10 per cent, he felt that definitive treatment should be more individualized.

No destructive criticism is intended either to the surgeon or internist. Patients would certainly not commit themselves to surgery were they not chronically in distress or recurrently ill. The intent is merely to stimulate and to organize our thinking in order that we might re-evaluate the validity of the theory of gastric hyperacidity as the pathogenic factor in the production or continuity of the benign gastric or duodenal ulcer.

It is possible that hyperacidity may play a role in the pathogenesis of the peptic ulcer but apparently it is not a consistent one. Many studies have shown a definite increase in gastric acidity in association with an existing peptic ulcer. Other studies, however, show that no increase in acidity was noted. In 1946, Dr. David Sandweiss and

associates[2] reported the results of a study which indicated that there was no significant difference in the volume and total output of acids (of normal gastric secretions) between the normal human subjects and the patients with uncomplicated duodenal ulcer as studied by continuous suction. Many others have agreed with such findings in their studies of gastric secretions. The dictum "no acid, no ulcer" cannot be substantiated. It is difficult to discard such a rational theory of gastric hyperacidity but the theory does not fit the facts and in the light of our many therapeutic failures we had better, it seems, search for other factors.

If factors other than hyperacidity are involved in the pathogenesis of the benign peptic ulcer, how can we isolate them? If anti-acid therapy has been so effective in many instances of peptic ulcer cases, how can we disregard its value? Let us consider the second question first and return to the first one later.

Many authorities have stated that 85 per cent of those developing peptic ulcer heal spontaneously or do so with some form of therapy. About 15 per cent continue on to the chronic recurrent phase. How exact these figures may be is difficult to determine. Assuming that they are somewhat close to being accurate, it would appear that approximately five out of every six cases heal regardless of, or because of, some form of therapy. It is conceivable that in this instance anti-acid therapy, being the most common form of therapy may, coincidentally, be credited with the many apparent successes.

Other reasons exist that again create an illusion of successful anti-acid effectiveness. Most textbooks, for example, describe the symptoms of peptic ulcer as being associated with periodic occurrences of post-prandial pain, discomfort or gnawing pains which are relieved by food or soda. Epigastric nocturnal pains which awaken the patient in the early hours of the morning are likewise indicative of the presence of an ulcer. A high percentage of these ulcers are concomittantly associated with symptoms of indigestion, as for example, gastric distention, nausea, belching, cramps, and intestinal distention with excessive passage of flatus.

It is on this basis of pain-alkalizer or food-relief that continued beliefs are maintained about the acid-ulcer relationship. Disturbing to such theoretical relationship, however, is the fact that in many instances of proven peptic ulcers, foods or alkalizers do very little good; in fact, they often aggravate the condition. Then, too, there are individuals who have no pain yet suddenly perforate or hemorrhage. Another serious consideration is the fact that many functional disorders duplicating, or in association with, an ulcer are relieved with alkalizers, food or anti-cholinergics, et cetera. One cannot help wondering whether such glowing cures described in the literature represent the 85 per cent who resolve spontaneously or are relieved of the functional symptoms that are associated.

Another source of misinformation about the peptic ulcer is the factor of diagnosis. Symptomatology alone is insufficient to establish a diagnosis. Without corroborating x-ray evidence the diagnosis is not valid. Too many typical ulcer prodromata in patients are found to be negative despite repeated x-rays in years of follow-up care. One positive x-ray finding is not positive proof either that an ulcer is present, even if there are associated symptoms. In my own experience I have had a number of occasions where ulcers, either gastric or duodenal, were found to be present by a reliable radiologist, yet subsequently proven incorrect. In one instance, a gastric ulcer was reported after a barium meal. The patient, quite distressed, promptly went to a well-known clinic, out of town where such x-ray evidence was not confirmed. In two other cases, duodenal ulcers were reported. These individuals received no specific therapy for one reason or another, yet x-rays repeated several weeks later failed to identify the earlier ulcer. How easy it might have been to credit the prevailing therapy, if it had been given, for an effective cure. Relief of symptoms by alkalizers, anti-cholinergics, spontaneous or early resolution of approximately 85 per cent of ulcer cases, curability based on one x-ray diagnosis, have aided and abetted the continued acceptance of the theory of hypergastric acidity as the big factor in the pathogenesis of the benign ulcer, despite the many therapeutic failures both medically and surgically.

The average physician is keenly concerned with the truth of a disease but is oftentimes bound down with statistical information rather than factual knowledge. Information is the intermixing of facts and opinion. It is often loaded with fallacy and misinformation. Such is the existing

situation today whereby too many highly esteemed men write and record statistical analyses as positive proof of superiority or inferiority of one procedure over another. These statistical studies compounded by various releases of confusing information contribute to the misunderstanding of the benign peptic ulcer problem.

We practioners, constantly alert to provide the best possible care for our patients, cannot be guided by statistical information alone. It is important that the true facts be ascertained. If the theory of hyperacidity is not tenable, what factors then are involved? There is an old adage, repeatedly quoted and applied by men who have made history in medicine in their time, "To seek the truth in disease, seek its pathology."

In the past years it was rather difficult to obtain enough specimens for pathological study. Acute or chronic peptic ulcers seldom ended on the morgue table. In recent years, however, the surge in resections has provided ample material for study. Consequently, the author has reviewed 100 stomachs which had been resected for duodenal or gastric ulcer. Malignancies were not included. Some authors have recorded reviews made of 100 to 600 resected stomachs in previous studies. Their results will be evaluated along with our own.

The findings in fourteen resected stomachs are listed below. They list an outline of the diseased tissue as recognized by the pathologist. When pertinent, both microscopic and gross pathology is included in the outline. Each one of the fourteen cases has something significant. The balance of the hundred cases are duplications and are consequently omitted.

The following stomachs were resected because of an existing duodenal ulcer:

1. Duodenal bulb was deformed, showed numerous periduodenal adhesions and inflammatory bands. The stomach wall mucosa was entirely normal. There was no evidence of mucosal changes of any kind.

2. Stomach mucosa showed no abnormal changes. Microscopically there was an increase in the number of parietal and chief cells to show active cellularity and secretory activity.

3. Grossly, the stomach mucosa was finely cobblestoned. Distal end revealed several superficial ulcers on anterior and posterior walls. Microscopically, the mucosa showed hypersecretory activity and minimal inflammatory changes.

4. Grossly, there was a posterior wall ulcer penetrating to the pancreas (this was the description given on the operative report). The submucosa, according to the pathologist, was quite edematous. Microscopically, the mucosa was infiltrated with chronic inflammatory cells and no prominence of the chief and parietal elements.

5. The mucosa was infiltrated by considerable numbers of lymphocytes. The chief and parietal cells were minimal in number and there was no suggestion in the stomach mucosa to show hypersecretory activity.

The next group of stomachs were resected because of a gastric ulcer:

6. Grossly, the serosa was smooth, grey and glistening. Layers of walls about the ulceration were hypertrophic and well-defined. The mucosa was edematous. Microscopically, there was mild intestinalization of the mucosa, no prominence of parietal cells and numerous masses of lymphocytes. The muscularis was densely infiltrated by eosinophiles and chronic inflammatory cells.

7. Grossly, the anterior wall was not remarkable. The posterior wall was considerably edematous. Mucosal surface showed sharply, punched-out, irregularly round ulceration. There was extensive inflammatory change throughout the omental fat next to the serosal layer. Microscopically, fibroblastic infiltration of wall with chronic inflammatory cells was seen. The mucosa showed intestinalization.

8. The mucosa was overlaid by blood-tinged mucus. No ulceration was found. Microscopically, however, mucosa was characterized by a chronic gastritis with fibrosis of submucosa and hypertrophy of muscularis.

9. Grossly, the serosal surface was smooth, surrounding tissue showed fibrosis and an area of ecchymosis. Microscopically, we saw an ulcerated lesion lined by necrotic debris, active granulation tissue, fibrosis of wall with complete absence of musculature.

10. The microscopic analysis of this stomach showed an ulcer covered by pus cells and a pyogenic membrane over the crater. The adjoining mucosa showed metaplasia but no evidence of inflammation or irritation.

11. The microscopic examination of this stomach reveals a severe chronic inflammatory reaction of purulent membranes and granulation tissue lining an ulcer crater.

12. Considerable edema of the mucosal wall underlying the ulcer area was noted. The remainder of the mucosa appeared hyperemic. Microscopically, the ulcer base is covered with a necrotic cellular debris and leukocytes. Beneath this is an area of fibrosis including many fibroblasts and newly-formed blood vessels. The muscularis is interrupted indicating perforation.

13. Grossly, there was a sharp punched-out deep ulcer with necrotic base. The surrounding mucosa was hyperemic. Microscopically, there was a normal mucosa ending abruptly at the ulcer crater. The latter was filled with mucus, blood and chronic inflammatory exudate. Inflammatory changes extended throughout the wall. The deeper arteries showed marked thickening of the wall and in places, obliteration of the lumen. Severe chronic inflammation was seen in the adventitia and some eosinophiles were seen about some of the vessels.

14. Grossly, a severe inflammatory and congestive type of mucosa. No evidence of ulcer. Microscopically, the mucosa showed a number of lymphocytes, muscularis showed numerous inflammatory cells with perivascular distribution.

Summary of Findings

Mucosa.—The mucosa of the stomach is practically normal in the presence of some duodenal ulcers. The mucosa of the stomach shows extensive inflammatory reaction in association with some duodenal ulcers. The mucosa of the stomach shows very little inflammation or irritation beyond the walls of some gastric ulcers. The mucosa of the stomach reveals extensive irritation and inflammatory reactions beyond the ulcer bed of some gastric ulcers. The mucosa shows extensive inflammation and irritation but no ulcer, gastric or duodenal could be identified after resection.

Chief and Parietal Cells.—Marked increase in chief and parietal cells and activity is noted in association with some duodenal ulcers. Minimal or active chief and parietal cells were noted in association with other duodenal ulcers. Active chief cells in association with gastric ulcers was noted in several cases. Minimal or no chief cell activity was noted in other gastric ulcer resected stomachs.

Serosa.—Paraduodenitis including inflammatory area into the pancreas was described. No areas of perforation were recognized in the muscularis or serosa of the diseased tissue. There is also a perigastric serosal irritation and inflammation involving the omental fat and lymph nodes. The muscularis and the serosa, however, were not perforated. Perforation was noted in several cases. The surrounding organs and tissues were irritated and inflamed. In one case the posterior wall was edematous with swelling and perforation. On the anterior wall there was none or little inflammation.

Other Significant Microscopic Findings.—Lymphocytic cell infiltration consistently present. Eosinophilic cell infiltration in a number of cases. Necrosis, a common finding, present in the center of the ulcer. Obliteration of arterioles at periphery was consistently associated; endarteritis obliterans. Pus exudate in ulcer crater and pyogenic membrane in surrounding areas. Edematous tissue in ulcer bed and in surrounding areas. Fibroblastic activity increased as evidenced by marked fibrosis or scar tissue formation.

Other Studies.—Magnus[3] studied 600 cases. His conclusion was that atrophy of the glandular parenchyma of the gastric mucosa was the main consistency. European investigator, Alfonso DeLaFuentaChoas,[4] of Madrid examined 243 specimens by perfusions with Neoprine (India Ink) and proved a zone of intense ischemia about the ulcer. Microscopic sections showed the existence of lesions similar to "endarteritis obliterans." The arterioles were all occluded but the veinules were dilated and occupied with red blood cells.

Comment

1. The benign peptic ulcer, gastric or duodenal may exist in a limited area without involving the surrounding mucosa to any degree. It is thus possible for the mucosa of the stomach or area surrounding the ulcer to be free of irritating reactions.

2. The benign ulcer, gastric or duodenal, however, may be associated with extensive areas of inflammation (gastritis) involving wide areas of gastric mucosa.

3. Several cases showed that despite an intact muscularis and serosal layer inflammatory actions extended into the omental fat where a gastric ulcer prevailed and into the pancreas where a duodenal ulcer existed.

4. The chief and parietal cells in numerous stomachs were entirely absent or showed very little activity despite the fact that extensive gastritis or ulceration and necrosis were present. On the other

hand, several stomachs showed increased chief and parietal cell activity.

5. A number of stomachs, despite careful study, revealed no evidence of an ulcer but extensive inflammation of the gastric mucosa (gastritis).

Based on the above findings, it seems to me that gastric hyperacidity can no longer be acceptable as an important factor, alone, behind the pathogenesis of the benign peptic ulcer. Although the chief and parietal glands showed increased activity in some stomachs, there were others where the glands were normal or atrophied. Then, too, perigastritis and periduodenitis involving the omental fat or the pancreas was noted, despite the intact serosal layer of the stomach or duodenum. In some instances where perforation of the muscularis and serosal layer was recognized there was no extensive involvement of the stomach mucosa beyond the ulcer bed to any appreciable degree.

Is gastric acid strong enough to perforate through muscles and serosa and yet too weak to inflame or irritate the mucosal layer alongside the ulcer bed? Is gastric acid capable of penetrating intact muscularis or serosa, yet too weak to involve extensively the mucosa alongside the ulcer bed? The theory of hyperacidity is not tenable; it does not fit the facts. For accuracy we must look elsewhere. Let us evaluate, therefore, the significant microscopic findings that are present in most of the resected stomachs.

1. *Lymphocytic infiltration.*—Nearly all of the stomachs resected showed vast infiltration of the lymphocytes around the blood vessels, ulcer bed and especially in the mucosa where gastritis was associated. Lymphocytes usually indicate a chronic inflammatory reaction. The latter may arise, however, not only from chemical or burn irritants but also from bacterial invasion. Bacterial infection, primary or secondary, specific or non-specific cannot be overlooked in relationship to the peptic ulcer. The existence of pus and pyogenic membranes in a number of resected stomachs indicates bacterial involvement. Of course, aseptic material as croton oil, turpentine, gastric acidity (?) may produce suppuration, but in the light of the limited area of ulceration, penetration posteriorly or anteriorly to surrounding organs, spread through the lymphatics, it would seem unwise to overlook bacterial involvement.

2. *Eosinophilic cell infiltration.*—A number of cases revealed extensive eosinophilic infiltration. These cells usually indicate an allergy or parasitic reaction.

The amoeba and other parasites may penetrate the mucosa of the stomach to produce a gastric ulcer. This brings to mind a former U. S. Navy WAVE whom I examined a number of years ago. Her past history involved a gastric resection because of hematemesis. Later, it was found that she was infested with *Amoeba histolytica.* This parasite might very well have been behind the gastric ulcer and hemorrhage.

Histamine reactions to allergic sensitivities to foods, et cetera, must be considered also as a factor in the benign ulcer syndrome. Walter Alvarez[5] clearly demonstrated that a large percentage of gastric disease arise from certain food allergies. This was exemplified by discussion of a case in which a woman went into shock following ingestion of Roquefort cheese hidden in a salad dressing. He convincingly proved many instances of gastric distress cleared simply by withdrawing such offending foods, when identified, from the diet. Certainly with such clinical and pathological findings, inflammatory histamine reactions in the gastric mucosa caused by food allergy cannot be overlooked as a factor in the peptic ulcer problem.

3. *Necrosis.*—Necrosis has been such a common finding that it too cannot be overlooked as an important factor in the etiology or perpetuity of the peptic ulcer. Necrosis indicates ischemia. Microscopic examination revealed many instances of endarteritis obliterans, yet venules were loaded with red blood cells. Apparently, the fibrinoplastic foreign protein, debris, closure of the arterioles (in consequence to the original assault, whatever it might have been) prevented the flow of arterial blood. This eventuates in a failure to permit complete healing.

4. *Edema.*—The mucosa was in most cases edematous, involving the ulcer bed and surrounding mucosa and submucosal tissues. Edema arises from inflammatory assaults. It is also associated with Na^+ or Cl^- retention. Hypoproteinemia may be a factor too. These facts must be included in any considerations for overcoming edema along with the inflammatory factor or factors.

5. *Cicatriazation.*—Large numbers of fibroblasts

and scar tissue cells, were noted in many of the cases. Scar tissue is formed but somehow granulation and complete healing does not occur. All factors involved in the healing processes of tissue must be considered. Any deficiencies in existence, for example, vitamin C deficiency, hypoproteinemia, ischemia, et cetera, must be corrected for complete healing to take place.

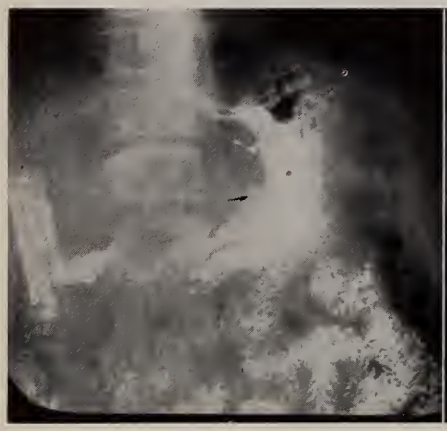


Fig. 1. Profuse hemorrhaging (December 27, 1956).

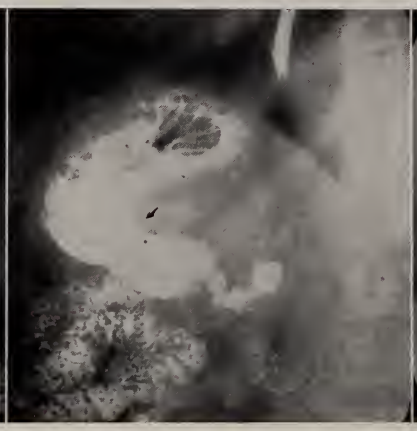


Fig. 2. Recovery satisfactory twelve days later (January 8, 1957).

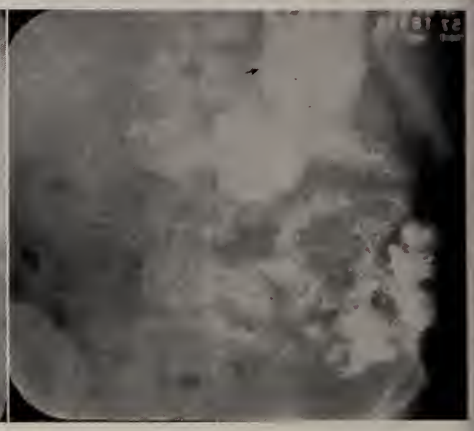


Fig. 3. Recovery complete at approximately six weeks (February 16, 1957).

Report of a Case

A man, aged fifty-four, was admitted to the hospital in a state of acute intoxication. History of alcoholism was a long one. He also had other illnesses (chronic bronchial asthma and myocardial damage). He responded well to medical therapy, both for the alcoholism, asthma and myocardial weakness. On the fourth day, however, he became nauseated, vomited about a pint of bright red blood and became almost pulseless. Heroic measures, including blood transfusions, restored the patient to physical stability. On questioning, it was learned that he had felt some burning pains in the epigastric area but believed that these pains were related to his asthma and therefore did not mention them. Palliative therapy was instituted with the belief that the bleeding might be from bleeding varicies of the esophagus. The cephalin flocculation test and thymol turbidity tests were negative, therefore a rapid stomach survey with diluted barium was conducted and a large gastric ulcer was demonstrated. He had several other hematemeses; however, conservative management was indicated because of his complicating illnesses. Therapy was instituted and directed at alleviating the five factors which were listed above. His recovery was satisfactory. His ulcer healed completely as demonstrated by the following x-ray studies (Fig. 1-3).

Summary

Acceptance of the theory of gastric hyperacidity as the sole factor behind the pathogenesis of the benign gastric ulcer is no longer, in my opinion, reliable. The theory has been promulgated through the years by incorrectly crediting cures when spontaneous healing, incorrect x-ray evidences, functional disorders, hypermotility or spasticity were involved. It is also relatively impossible, with present-day diagnostic methods, to determine accurately the factor or factors involved in promoting or perpetuating a chronic benign gastric or duodenal ulcer in any one specific case. It would seem rational, consequently, to treat all resistant cases utilizing every method known to combat the five factors involved in the peptic ulcer, as recognized by the pathological studies, in an almost routine manner.

The factors as discussed include: (1) chronic bacterial infection—primary or secondary, (2) allergic or parasitic reactions, (3) fibrinoplastic (endarteritis obliterans) ischemia, (4) edema (Na^+ and Cl^- retention), (5) faulty healing (hypoproteinemia, vitamin C deficiency, et cetera). Each must be effectively irradicated if consistent and good results in the control of the benign gastric or duodenal ulcer is desired.

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Pathology and Treatment of Urethral Caruncles

By Harold D. Dykhuizen, M.D.
Muskegon, Michigan

VERY LITTLE has been written or stressed recently concerning the very common lesion of urethral caruncle. However, a great deal of variable thinking as to the symptomology and treatment still exists.

Some twelve years ago, because we were dissatisfied with our results using electrocoagulation (owing to inadequate removal and stricture formation) a review of the literature was made preliminary to the study of our cases. This study has since been continued.

It became quite clear that a routine for the study of diagnosis and treatment of a caruncle depended upon understanding the true pathological picture of the various types, the careful study of the urinary and genital tracts, and using a systematic approach for removal, to satisfy the three principles set forth by Everett in his textbook.

In recent years, it has been pointed out that there are an increasing number of unsuspected and pre-malignant cases found when performing adequate removals and submitting them for biopsy. The older articles and texts stressed the gross pathological appearance which I feel is most important to effect complete removal. No mention will be made, here, of the incidence, age, or etiology. The former is well known, and the latter is unknown.

In 1914, Kelly and Burnam pointed out that the term "caruncle" is an unfortunate one since it means nothing more than "a small fleshy mass," and that this has accounted for the inadequate approach. They suggested that V. Winchel's term, "papillary polypoid angioma," would be more complete and descriptive. No mention of this term is made in recent literature, but I believe it emphasizes the extensiveness the lesion may take.

The angioma may be sessile or pedunculated, or a multiple of each. The tumor is generally markedly red and extends into the urethra for some distance. The general mass seems to protrude or originate from the posterior wall mucosa, although if multiple polypi are present, they may come from the lateral walls. The sessile type is most prominent on the posterior lip, but may surround the entire meatus and seem localized there, but, if carefully examined, the base always extends *into* the urethra. Walther emphasizes the need of over-dilatation of the urethra in order to fully visualize the entire tumor. We feel that eversion of the urethra is also important to well-define the base.

Occasionally, the polypoid masses are accompanied by a prolapse. Differentiation between caruncle and true prolapse is not difficult.

Walther and Willoughby, Hess, Counsallour, and others have stressed the difficulty, by clinical means, of differentiating a benign and malignant lesion.

Everett describes the microscopic appearance as fairly consistent, appearing as polypi with a loose fibrous stroma containing many thin-walled blood vessels and usually infiltrated with inflammatory cells, round cells, and polymorphonuclear leukocytes. The surface is covered by stratified squamous epithelium or by transitional epithelium in about equal proportions of the cases (Olcott) and occasionally both types are present in the same specimen. The epithelium often tends to dip down into the stroma forming crypts with resulting patterns which, on cursory examination, might suggest carcinoma. At times, the structures are typically papillomatous.

The older text books have stressed the exquisite sensitivity of all caruncles and this impression of the symptomology has persisted in many minds. However, we did not find this to be true except in the very large polypoid masses or those with ulceration. Most angiomas seen are insensitive and produce little or no symptoms. Therefore, it must be stressed that, although a caruncle does exist, frequency, urgency, and dysuria must be thought the result of urinary tract disease other than of the obvious lesion found on superficial examination.

Presented at the Michigan Clinical Institute, Detroit, March 15, 1957.

The most prominent symptoms of a caruncle, as an entity, is bleeding—particularly that found on tissue after wiping. Along with this, is the above-mentioned mild to extreme sensitivity. This bleeding must be differentiated from vaginal or uterine bleeding.

In the past twelve years, 118 cases were operated and another twenty-one cases seen because of incidental findings on urinary tract examinations. The majority of the 118 cases were referred or seen for a primary diagnosis of caruncle. Of these: 34 per cent had associated urinary tract disease including five cases of ureteral calculi and six having interstitial cystitis; 29 per cent had chronic urinary tract disease, and 5 per cent had acute infections. The remaining were seen with bleeding and tenderness. One huge polypoid angioma (1 inch in diameter) was removed. Another was ½ inch in diameter, projecting from the meatus with a small pedicle orginating ⅜ of an inch in the urethra. One other case had multiple large ulcerated polypoid masses. One was indurated and ulcerated but on a small soft base. Malignancy was suspected, but microscopically the many vessels were thrombosed.

These cases illustrate the necessity of a diagnostic procedure to study the genitourinary tracts In each case, a physical examination is done, followed by cystoscopy, palpation of the urethra with cystoscope in place, careful vaginal and pelvic examination, and urinalysis with culture. Pyelograms may be done if findings warrant. If other conditions are present, these are treated preliminary to excision of the caruncle.

Various techniques have been suggested for treatment, including dissection, excision with loop electrode, destruction with chemicals, or actual cautery, fulguration, or a combination of these methods.

The three important principles to follow in technique are:

1. Sufficient amount of tumor should be removed and preserved for microscopic study.

2. The mucous membrane at the base must be completely removed or destroyed to prevent recurrence.

3. The removal or destruction must be done in such a way as to avoid scarring sufficient to produce a stricture.

The use of chemicals must be discontinued. Destruction with electrocautery or fulguration is too apt to leave scarring and does not provide tissue for biopsy. Furthermore, it is difficult to ascertain the amount of tissue necessary to destroy as the appearance changes rapidly under even minimal dessication.

Walther and Willoughby, in 1935, came to the following conclusion:

> "The many reports received in personal communications from leading urological clinics throughout the country, as well as a study of the series herewith reported, reveal the fact that many of the proliferative lesions of the female urethra removed and studied microscopically show either malignant or pre-malignant changes. A warning should therefore be sounded against removal of such lesions by haphazard methods often employed (actual chemicals and so on) without submitting biopsy specimen to the pathologist in every instance. It is only by routine study that the actual incidence of urethral carcinoma in women can be determined."

Walther, in 1943, advocated excision with the loop electrode at the base of the polypoid type. Many have advocated excision with coagulation of the base for bleeding. This can be done without scarring on a very small base, but an extensive sessile lesion requires enough to cause serious scarring later.

To overcome some of these objections and to fulfill the principles laid down for adequate removal, the following technique has been used.

All patients are hospitalized and sodium pentothal used as an anesthetic. Local anesthetic was discontinued because it distorted the field, making the tumor base difficult to define. We also desire to have the patient completely relaxed. No colored antiseptics are used in preparation but rather aqueous green soap or surgical detergent to keep the normal tumor color outline.

The labia are held apart by an assistant. The urethra is observed closely and dilated with a 28F sound. On several occasions, a film of tissue covering the meatus was excised previous to dilatation. The components of the angioma are then grasped with Allis' forceps or traction sutures and drawn outward. If this does not sufficiently illustrate the entire base, further eversion of the urtheral mucosa at the meatal end is accomplished. Taylor advocates the use of a Foley bag catheter pulled down to help evert the meatus. After the entire base is well-defined, excision of the tumor is started in normal mucosa at the meatal end, by circumscribing the urethra. With the traction gentle, but constant, the urethral

mucosa with tumor is dissected along the longitudinal muscle beyond the base and then excised with either scissors or knife. This procedure may de-nude the distal ½ inch of wall of the urethra. Bleeding is mainly at the proximal end and may be controlled with a 24F Foley bag catheter, indwelling for twenty-four to thirty-six hours. However, in the past five years we have followed Roen's suggestion of suturing the mucosa to the meatus. In no instance has this failed to control the bleeding nor has it caused any irritation or scarring. Occasionally, on small lesions, a tiny piece of gauze, saturated with topical thrombin, controlled the oozing. At times, edema at the incised mucosal border causes difficulty in voiding and a small indwelling catheter is necessary for twenty-four to forty-eight hours.

Between June 1944, and January 1957, 118 cases have been treated in this manner. The healing has been surprisingly rapid, giving the patient no discomfort. There has been very little serosanguineous drainage and no secondary bleeding which is seen where fuguration or coagulation of the base is done. Five strictures developed. However, in the remaining cases the meatus was normal and pliable. In six cases there was a recurrence. In another, the microscopic report showed an early malignant change. The patient has been watched for eleven years showing no recurrence in induration or extension and it is felt that the excision was thus adequate.

All patients have been released from the hospital the third or fourth day and have been up and around thereafter. Any pyuria has been controlled with small doses of sulfonamides.

It is felt that a renewed emphasis should be made on the clinical-pathological picture of the papillary polypoid angioma in order to correlate it with more adequate removal of the tissue involved. This is warranted as more early and premalignant changes are found in the biopsies. Emphasis should be made on thorough genito-urinary tract examination as a great many are urinary tract diseases with an incidental angioma.

Summary

One hundred and eighteen cases have been treated with the suggested total excision using indwelling catheter or suture for the control of bleeding. There was prompt healing with few strictures and only six recurrences. One case of early malignancy was found eleven years ago, the excision of which was adequate for cure to date. The procedure is short, thorough, and fulfills the principles advocated for adequate treatment.

We have taught people to heed the warning of blood. Therefore, any spotting is terrifying to the medically-conscious woman and even though one may minimize the caruncle as a lesion, the patient rightfully deserves to have her fears allayed by thorough removal and biopsy after careful examination to localize the source as a caruncle.

CANCER OF THE BREAST

(Continued from Page 572)

pear for some unexplained reason reasserts itself and the lesion remains dormant or even regresses and disappears spontaneously.

Now the question is: *Can we derive any practical help from this new "look"?*

Adequate recognition of the importance of the defensive role of the body against cancer opens new and hitherto unexplored avenues of research which should lead to a better understanding of the cancer process. The question that naturally follows is what can be done to strengthen the natural defenses. Hitherto, almost all our energies have been spent on attempting to remove or destroy the cancer and surprisingly little has been done to help the body mechanism. It is not over-optimistic to hope that a reorientation of our attack on the cancer problem with proper emphasis on augmenting the body defense might open a new era in cancer research. Already some progress has been made in this direction in the discovery of certain chemicals and hormones which have exerted a favorable effect—and the most recent studies of the possible role of the emotions, acting through the hormones on the cancer process, are especially interesting and give some hope of progress in a totally new and exciting field of research.

Thorazine Jaundice

By Kirk V. Cammack, M.D.,
John W. Hoffman, D.M.D., M.D.
and Max Dodds, M.D.
Flint, Michigan

ONE OF THE most important problems confronting the surgeon is the differentiation between surgical and non-surgical jaundice. The surgeon relies most heavily upon the laboratory in helping to solve this diagnostic problem. Microscopic examination of a liver needle biopsy is a more recent aid.

There are certain hepato-toxic chemicals which have produced a picture of obstructive jaundice, both clinically and in the laboratory.[1,2,3] The most recent and extensively used of these drugs is chlorpromazine (thorazine).

There are approximately two million people in the United States receiving or who have received this drug since its recent introduction.[4] It is estimated that possibly 2 to 3 per cent of these people develop jaundice. A surgeon in an active practice will be apt to see these jaundiced patients in consultation. He must be aware of the fact that chlorpromazine produces a jaundice indistinguishable by the commonly used laboratory tests from obstructive jaundice. The liver biopsy also suggests an obstructive process.

The purpose of this paper is to present two cases of thorazine jaundice in which surgery was performed with disastrous results and to construct a clinical picture of the patient most likely to develop this type of jaundice. A review of the literature will be attempted.

Review of Literature

Clinical Data.—We have selected from the literature twenty-one cases reported in sufficient detail to be of value in the synthesis of a clinical picture (Table I). These cases include eight men and thirteen women, the average age being fifty-one years, with a range of from twenty-one to seventy-two years. In most cases, the indication for the use of thorazine has been psychogenic diseases. These factors of sex distribution, age distribution, and indication are probably a reflection of the population receiving thorazine therapy. The associated conditions do not appear significant. The dosage of thorazine ranged from 20 to 660 mg. daily, and the total amount received ranged from 525 mg. to 14.52 grams. It would appear from this that the development of jaundice is not dependent on the amount of thorazine received.

In the typical case, there is a period of about fifteen days after the beginning of thorazine therapy preceding the premonitory signs or symptoms. These latter usually include fever of 100° F. to 103° F., malaise, anorexia, and sometimes chills. There may be nausea and vomiting, and pruritus may appear prior to the jaundice. The prodromal period may be as short as four days or long as twenty-one days.

Jaundice appears about five days later, but may appear as early as the day following the prodromal signs or symptoms or be delayed as long as fourteen days. In almost all cases there are clay-colored stools, an enlarged tender liver, and there may be exacerbation of the prodromal symptoms with increased malaise, nausea, and vomiting. Pruritus usually accompanies the icterus, and may be severe and intractable. The jaundice lasts about six weeks (two to seventeen weeks) and the hepatic dysfunction a week or so longer.

In Cases *14* to *18,* inquiry as to past history of allergy was made. Two of the five patients had a previous history of allergic dermatitis, and the authors reporting these cases attached some significance to this datum. Past history, with specific reference to allergy, is not available in the remainder of the published case reports.

Laboratory Data.—In the usual case, the white count is normal or slightly elevated. In about half of these cases in which the differential is reported, there is eosinophilia from 5 to 58 per cent (the tendency towards eosinophilia, in view of the previously mentioned allergic background of some of these cases would appear to be a significant feature of the syndrome). The serum bilirubin has been reported in twenty of the twenty-one cases. In all there has been significant elevation

Presented before the Michigan Chapter of the American College of Surgeons, Ann Arbor, March 12, 1957.

TABLE I. REVIEW OF THE LITERATURE—CLINICAL DATA

Case Number	Reference	Age and Sex	Diagnosis or Indication	Associated Condition	Dosage, mg				Days Until Pre-monitory Signs	Premonitory Fever	Days Until Jaundice	Clay-colored Stools	Duration of Jaundice	Duration of Hepatic Dysfunction	During Jaundice		
					Minimum Daily	Maximum Daily	Average Daily	Total							Rash	Fever	Liver Edge
1	5	46M	Psychogenic disease	None			200	2800	14		15	Yes	14	30	No	102	No
2	6	45F	Psychogenic disease	Mitral stenosis		500		10000	4	101	21	Yes	91	91	No		Yes
3	7	70F	Psychogenic disease	Diabetes			225	975	9	103	13	Yes	39	43	No		Yes
4	8	64F	Psychogenic disease				75	525			14	Yes	77	77	No		
5	8	36M	Meniere's disease		20	100			19	101	26	Yes	90+	90+	No		Yes
6	8	47F	Psychogenic disease	Herniated disc			150	950	21	100	26	Yes	14	14	No		Yes
7	9	40F	Psychogenic disease				200	2800			14	Yes	30	30			Yes
8	10	70F	Psychogenic disease					3875	19	102	21	No	14				
9	11	67F	Dermatitis, pruritis	Lymphatic leukemia?			50	1050			31		14	14	Yes	104	Yes
10	12	65F	Psychogenic disease	Diabetes		200		3360			23		117	117	No		No
11	12	65F	Nausea, vomiting		100			1350			15	Yes	85-108	85-108	No		No
12	12	59M	Psychogenic disease	Chr. encephalitis?		50		1520			31		55	55		100	Yes
13	13	52M	Psychogenic disease					1500	10	Yes	19	Yes	73+	73+		102	No
14	14	21F	Psychogenic disease		200	300	210	1680			8		14-21	14-21			
15	14	22M	Psychogenic disease		100	200	123	2091			17		14-21	14-21			
16	14	30M	Psychogenic disease		150	200	160	3360			21		14-21	14-21			
17	14	34F	Psychogenic disease		150	1000	660	14520			22		14-21	14-21			
18	14	43M	Psychogenic disease		200	800	320	6400			20		14-21	14-21			
19	15	65M	Psychogenic disease	Recurrent bronchitis			75	1425	19	103	23	Yes	18	49	Yes	104	Yes
20	15	72F	Psychogenic disease	Parkinson's disease			75	1125	15	101	18	Yes	21+	43+		100	Yes
21	15	68F	Vomiting	Diabetes			75	1875	18	102	22		46	61+			Yes

TABLE II. REVIEW OF THE LITERATURE—LABORATORY DATA

Case Number	White Blood Count	Eosinophiles %	Bilirubin			Urobilinogen		Albumin	Globulin	Prothrombin Time % Normal	Cholesterol	Cholesterol Esters	Alkaline Phosphatase, Bodansky Units	Cephaline Floc.		Thymol Turbidity
			Direct	Indirect	Total	Fecal	Urinary							24 Hour	48 Hour	
1	N				9					100			21		1+	2
2	N	N			23			N	N				E			N
3	N	0	13	0.7	13.7			4.3	1.7	85	400	280	E	0	0	1.6
4			18.8		14.7		0.09	2.3	3.4	N	276	202	15.3	N	N	N
5			10.0		5.9			4.2	3.9	N			6.9	N	N	3.0
6	7350	42	2.5		0.9			4.2	3.9	N	223	206	6.9	N	N	
7	N	N			5.4		+			100			17.6	0	+	1.8
8					4.6			3.8	2.9				55.1			4.0
9	13100	4	15	1.0	16.0	3.5	1-30	3.7	2.1	75	325		7.7	0	+	
10	N	7											17.3	0	1+	
11	5600	N	35		48.6	3.5	0.06	3.3	3.4		250		10.8		1+	±
12	10500	N	7.2		8.7	79	0.43	3.4	3.3		584		35.8		1+	3.9
13	14900	58			3.8		E						12.8			
14					E			N	N				E		N	N
15					E			N	N				E		N	N
16					E			N	N				E		N	N
17					E			N	N				E		N	N
18					E			N	N				E		N	N
19	4600	16	6.6	9.8	16.4		0			100	539		24	0	0	1.0
20	9000	5	9.5	14.0	23.5		1-10			93	353		21.9		2+	1.5
21	7600	2	1.2	2.4	3.6		1-10	2.5	2.8	N	1040	656	51.4		1+	2.2

and in most cases the direct was more elevated than the indirect bilirubin. (In *Cases 4* to *6* where the total bilirubin is reported as less than the direct, the explanation of the apparent discrepancy most acceptable is error, the indirect being reported as total). Three fecal urobilinogen examinations are reported: *Case 9* (in Ehrlich units) is below normal *Case 11* (in mg. per twenty-four hours) below normal; and *Case 12* (in mg. per twenty-four hours) normal. The urinary uroblinogen in *Case 4* is very low (two hour), in *Case 9,* high (dilution), in *Case 11,* low (two hour, Ehrlich units), in *Case 12,* normal (two hour, Ehrlich units), *Cases 20 and 21* are reported in dilution and are also normal. These data are too few and inconsistent to allow generalities as to fecal and urinary urobilinogen in this syndrome.

Fifteen cases reported the serum protein. Eight of these show an A/G ratio of less than 1.5/1, and three of them show a reversal of the A/G ratio. Six show albumin values of less than 4.0 gm./100 ml., and five show globulin values higher than 3.0 gm./100ml. None of the four reported cholesterol esters as signficantly elevated. Seven of the nine cholesterol levels reported are elevated

above 250 mg./100 ml. The prothrombin time, as a rule, seems within normal limits.

All cases reported alkaline phosphatase values; of these, only three were below 10 Bodansky units (seven reported only as elevated). The highest value reported was 51 units. The cephalin flocculation tests were normal, as were the thymol turbidity tests. Elevated blood sugars and glycosuria have been observed.[19]

Pathological Data.—In ten cases, the liver was examined microscopically, on needle biopsy or autopsy section, or both. The pertinent findings are shown in Table 3. The significant feature appears to be cholestasis with inspissated bile noted in the canaliculi. Infiltration is frequently noted, usually slight in degree and of various cellular types. In one case, eosinophilic infiltration was sufficiently pronounced to warrant comment. Degeneration of liver cells and fibrosis do not appear to be typical, and if present, only of slight or moderate degree.

TABLE III. REVIEW OF THE LITERATURE—PATHOLOGICAL DATA

Case No.	Cholestasis	Infiltration	Degeneration	Eosinophiles	Fibrosis
3	Slight	Neutrophiles, eosinophiles, lymphocytes	Slight	Yes	
4	Slight	None	None	None	None
7	Slight	Lymphocytes		None	None
9	Severe	Neutrophiles, monocytes	None		
11	Slight	Slight	None		None
12	Severe	Severe	Slight	None	None
13	Moderate	Slight	None		None
19	Slight	Polys, lymphocytes			
20	Slight	Polys, lymphocytes			Slight
21	Slight	Polys, lymphocytes			Mod.

TABLE IV. SIGNIFICANT DATA OF PATIENTS WITH THORAZINE JAUNDICE
Hurley Hospital

	Eosinophilia	Alkaline Phosphatase	Serum Bilirubin	Liver Biopsy	Significant Past History	Surgery or Clinical Course
1.	21	30.8	18.9		Not recorded	Recovered
2.	4	3	7.5		Not recorded	Recovered
3.	6	7.1	16.18	Intra hepatic obstruction	Not recorded	Recovered
4.	8	8.1	6.86		History of allergy	Recovered
5.	4	25.6	10.1		Cholecystostomy with draining sinus present	Recovered
6.	7	8.2	16.7	Intra hepatic obstruction	History of allergy and gallbladder disease	Died following surgery
7.	2	22	8.1		History of gallbladder disease and allergy	Died following surgery
8.	9	44.5	24.2		History of allergy	Recovered following surgery

Case Reports*

A study of eight cases of thorazine jaundice seen in Hurley Hospital reveals a similar clinical and laboratory picture. Four cases had an elevated alkaline phosphatase. Seven had an eosinophilia ranging from 4 to 21 per cent. Four cases out of the eight had a definite allergic diathesis. In three patients, the thorazine jaundice was superimposed on previous bialiary tract disease. Two of these patients were operated with fatal termination. One patient survived a negative exploration.

Case 1.—Z. D. was a woman, forty-nine-years-old, white, with a history of hypertension for twenty-five years. She was admitted to this hospital July 14, 1955, complaining of hypertensive headaches and anxiety. At that time she was placed on thorazine, 25 mg., t.i.d. She had a subjective improvement from her original complaint. Three days after being placed on the drug, the patient noticed the onset of pruritus. She received the drug for two weeks on an out-patient basis. At that time, the jaundice was first noticed by her attending physician. The dosage of thorazine was then cut to 10 mg. t.i.d. The patient then continued on it for another week. At that time, the patient was seen to be jaundiced with severe pruritus. She had light stools and dark urine. She was admitted to the hospital August 22, 1955. The physical examination showed a patient with essentially the same physical findings as on her previous admission. The patient had marked jaundice and evidence of pruritus. Her blood pressure was 186/100. Funduscopic examination showed minimal A-V nicking. The abdomen was obese. The liver, kidneys, and spleen could be felt. There was no tenderness. She gave a history of epigastric distress, fatty food intolerance and gas.

Laboratory findings on admission to the hospital.—Routine urinalysis and serology were negative. Hemoglobin 83.5 per cent (13 grams); red blood cell count, 4,530,000; white cell count, 6,400 (58 neutrophiles, 34 lymphocytes, 1 monocyte, 7 eosinophiles). Serum bilirubin 17.1 mg. per cent. Urine bilirubin was positive

*Review of thorazine jaundice at Hurley Hospital, Flint, Michigan.

in undiluted specimen. Zinc sulphate turbidity, 4 units. The patient had a negative cephalin flocculation at twenty-four in forty-eight hours. Alkaline phosphatase 8.2 Bodansky units.

The impression on admittance was that the patient was experiencing thorazine-induced jaundice. The patient was treated conservatively with sedation, high protein—high carbohydrate—low fat diet, and the usual expectant management. On September 7, 1955 she had a serum bilirubin of 16.7, alkaline phosphatase of 5.9, serum cholesterol of 211. She had a positive test for bilirubin in the urine. Thymol turbidity was a plus 3. The CBC remained essentially the same. Her Coombs test was negative in both the direct and indirect methods. The patient appeared more jaundiced and complained of severe pruritus. On September 9, 1955 a liver biopsy was performed which showed no indication of tumor or inflammation. There were numerous bile thrombi. The final diagnosis being that of an obstructive jaundice, intra-hepatic. On September 14, 1955 the patient's serum bilirubin had risen to 26.2 mg. per cent, 25 mg. per cent direct and 1.2 mg. per cent indirect. Her pruritus had abated some, but she still remained markedly jaundiced. She complained of a large amount of gas pain. Because of the patient's long history of epigastric distress and because the possibility of common duct stone could not be completely ruled out, an exploratory laparotomy was elected on September 20, 1955. This was approximately two months after the onset of the patient's jaundice.

Operative Report.—On entering the peritoneal cavity there was a small amount of bloody fluid. This was believed to be probably due to previous liver biopsy. Palpation of the gall bladder revealed it to be adherent with a slight thickened wall. Multiple, moderate sized stones were found in the gall bladder. Exploration of the common duct revealed no stones to be present. There were no strictures seen. A probe could not easily be passed in the right hepatic duct, but it was eventually dilated followed by the passage of some dark blood and bile. A punch biopsy of the liver was carried out with brisk bleeding encountered. This was controlled with a mattress suture. A cholecystectomy was carried out in the usual manner. A T-tube was left in place in the common duct. It was estimated that 3,000 cc. of blood was lost at surgery. This was replaced with 4,000 cc. of blood and 1,000 cc. of 5 per cent glucose and water. Postoperatively, the patient did very poorly. She had increased respiration with decreased blood pressure (78/60). The pulse was weak and thready. The patient progressed rapidly downhill with shock and cyanosis. She received extensive blood transfusions, but did not respond. The patient expired on September 21, 1955, the morning following surgery.

Autopsy Report.—Unfortunately the necropsy was limited to examination of the liver through the surgical incision.

On opening the incision, the abdominal cavity was found to be filled wtih clotted and liquid blood. An estimated 3 liters of blood was removed. Examination of the abdominal organs through the incision revealed no abnormalities. The surface of the liver was smooth and mottled green in color, otherwise, it was not remarkable. There was surgical absence of the gall bladder. The T-tube was in place in the common duct and reached well into the liver parenchyma. The terminal 1 cm. of the T-tube appeared to have perforated the hepatic duct and entered directly into the parenchyma. There was hemorrhage and edema about this terminal portion of the T-tube. The section of the duct system failed to reveal any mechanical obstruction.

Microscopically, there was a picture of biliary obstruction with intra-hepatic bile stasis. There were innumerable bile thrombi in the intra-cellular canaliculi. This occurred in the central and mid-zonal areas of the lobules. The peripheral zone was not remarkable and there was no bile stasis in the biliary radicles of the portal spaces. There was no demonstrable hepatocellular inflammation or degeneration, nor was there inflammatory infiltrate in the portal areas.

Final Anatomical Diagnosis.—1. Intra-abdominal hemorrhage with hemoperitoneum, postoperative clinical hemorrhagic diathesis. 2. Intra-hepatic cholestasis, severe, post-thorazine therapy. 3. Recent cholecystectomy and common duct exploration.

Case 2.—M. C. was a sixty-seven-year-old woman admitted on December 16, 1954. She had a history of clay-colored stools for a three-weeks duration with gradually developing jaundice. She had been in the hospital thirty-four days prior to this admission with a diagnosis of conversion reaction and neurodermatitis disseminata. During this stay in the hospital, she had been on 50 mg. of thorazine q.i.d. Six days after the initial administration of the drug, the patient developed urticaria. It was felt by the attending dermatologist that the skin manifestations might have been due to thorazine and the drug was discontinued after the patient had received it for a total of eight days. The urticaria cleared subsequent to this change in therapy, possibly with the aid of benadryl. The only drug the patient had been on since this previous admission was benadryl and an undetermined amount of cortisone. At the time of the patient's discharge there was no record of jaundice and the laboratory work was all within normal limits.

The past history revealed numerous admissions for psychiatric conditions. Abdominal x-rays revealed an incidental radiopaque gallstone. Six months before her last admission to the hospital some liver tests were as follows: BSP 82.5 per cent retention in five minutes, 11.8 per cent retention in thirty minutes; serum bilirubin .2 mg. per cent. Throughout her numerous stays in the hospital the patient had normal blood counts and urinalyses and negative serology.

Clinical Course of Last Hospital Admission.—The patient remained icteric and complained severely of generalized pruritus. The liver battery was as follows: A/G ratio 2.2 to 1 with an albumin of 3.9 gm. per cent and globulin 1.8 gm. per cent; total serum proteins

5.7 gm. per cent; zinc sulphate 23 units; prothrombin time taken on four occasions was within normal limits varying from 16 to 18; cephalin flocculation, negative at twenty-four and forty-eight hours; thymol turbidity, 17 units; alkaline phosphatase 22 Bodansky units; serum bilirubin 8.1 mg. per cent; urine bilirubin, positive in dilution of 1-10.

On admission, complete blood count showed 94 per cent hemoglobin (14.6 grams), red blood cells, 5,200,000, white blood cells, 4,000 with 56 per cent neutrophiles, 42 per cent lymphocytes, and 2 per cent eosinophiles. Negative urine and cardiolipin. The patient's old x-rays showing the radiopaque gallstone were reviewed and because of the biliary calculi and the laboratory results indicating obstructive jaundice, exploratory laparotomy was elected. Prior to surgery she received two 25 mg. doses of thorazine inadverently before the past history of possible allergic manifestations was learned. The patient's past history of prolonged cortisone administrations was unknown to the surgical consultant and she did not receive any steroid therapy prior to surgery. At laparotomy, there was a moderately thick-walled gall bladder containing multiple stones. The common duct was explored, but no obstruction was present. The patient developed some shock-like episodes while on the table, was immediately closed and returned to her room.

Postoperatively, the patient did very poorly. She was given Levophed because of prolonged hypotension. Eight units of blood were administered over a period of two days. Her blood pressure was maintained at 90/60, but on her second postoperative day, it began to slip and no amount of intravenous administrations relieved her hypotension. On the last hospital day, she spiked a temperature of 104° rectally. Adrenal-cortical extract, 50 cc. in 5 per cent glucose and water was administered on her final hospital day with a transient rise in blood pressure to 140/70. Hypotension again resulted. She developed an anuria and expired on her second postoperative day.

Autopsy Findings. — The cardiorespiratory system showed no pathology except for moderate congestion and edema of the lungs. Upon entering the abdomen about 2000 cc. of clotted blood was observed. The liver weighed 1300 grams. It was soft and tan in color. The gall bladder was absent. A section of the bilary radicles showed a slightly dilated common duct with no evidence of obstruction. A T-tube was in place. There was a considerable amount of old blood adherent to the gallbladder bed on the under surface of the liver suggesting the origin of the abdominal hemorrhage. The stomach, pancreas, and spleen showed no pathology. The kidneys showed a pale cortex and gross evidence of shock. Microscopic examination of the liver showed severe degenerative change with necrosis, mostly central lobular. There was severe biliary stasis with numerous bile thrombi. The only areas free of these static bile collections were the outer portions of the lobules. The biliary radicles in the portal areas were empty. Only an occasional minimal collection of lymphocytes was seen. A section from the gallbladder bed showed fresh hemorrhage.

Final Anatomical Diagnosis.—1. Toxic hepatitis, severe. 2. Recent cholecystectomy. 3. Intra-abdominal hemorrhage from gallbladder bed. 4. Lungs, bilateral congestion and edema. 5. Possible adrenal failure secondary to previous cortisone administration, historical.

Discussion

Of the twenty-nine cases of thorazine jaundice included in this report, 35 per cent were explored. Of the patients explored there were three deaths, two from hemorrhage and one with an associated postoperative agranulocytosis. There were two deaths of the patients not operated. One death was believed due to the hepatitis, the other from an unrelated cause. The percentage of deaths directly associated with thorazine jaundice, with or without surgery, is 14 per cent. The two cases presented in this paper are the only ones reported associated with a postoperative hemorrhage.

The frequent occurrence of an allergic diathesis in the patients with a frequent, and sometimes extreme, eosinophilia and the occasional eosinophilic infiltration of the liver suggests that the hepatitis is produced as an allergic phenomenon with the liver as the shock organ.

The laboratory differentiation between obstructive and thorazine jaundice is not possible with the present methods of determination. Recent work with the use of a serum iron determination in detecting a toxic hepatitis suggests a possible differential test.[16]

A recent study of fifty patients receiving thorazine revealed that 42 per cent of them developed abnormal liver function tests. Only one of these patients became jaundiced.[18]

Summary

Thorazine jaundice seems to develop independently of the dosage or total amount of the thorazine received. There is frequently a past history of allergy. Jaundice appears two to three weeks after the administration of the drug and is usually preceded four or five days by chills and fever, anorexia, nausea and vomiting, sometimes pruritus, or general malaise. There may be a peripheral eosinophilia.

The laboratory tests are consistent with an obstructive jaundice. Liver biopsy shows cholestasis with moderate infiltration of leukocytes. Awareness of this syndrome, when the surgeon is confronted with what appears to be a case of obstructive jaundice, may help in avoiding unnecessary surgery and its disastrous consequences.

(References on Page 601)

The Michigan Tumor Registry

Statistical Study of 7,444 Malignant Neoplasms

By Isidore Selzer, M.D.
Detroit, Michigan

THE Michigan Tumor Registry was established in 1949 and began operations in mid-year of 1950. The organization and operation of the Registry has been described[1] previously and these details will not be repeated here. It will be sufficient to reiterate that the Michigan Tumor Registry is a voluntary, state-wide agency whose chief function is to collect and maintain a file of specimens of neoplastic disease with a clinical history of each case. The following discussion will be limited to that aspect of the Registry's function which may be classified under the heading of "cancer reporting" and will omit any consideration of the Registry's function as a "tissue or pathology registry." This communication is therefore intended to serve both as a progress report of the Registry as well as an indication of the potential value of a central cancer registry in a cancer control program for a given area. Although obviously incomplete, as will be pointed out below, the Registry material is drawn from a wide area and it is felt that an analysis of the registered cases may provide pertinent information, although of a purely relative nature. It must be emphasized that any conclusions, implied or stated, are based solely on the group of neoplasms under consideration without regard to the age, sex, or race incidence of the general population.

Nature and Source of Material

Although our Tumor Registry accepts benign as well as malignant neoplasms, this report will deal only with those neoplasms which are definitely considered to be malignant, both histologically and clinically. During the period under survey (1950 to 1956), 7,444 cases of malignant neoplasms of all sites were reported to the Michigan Tumor Registry. Since these cases are submitted by pathologists, all cases reported to the Registry have had histologic confirmation of the diagnosis. This feature of our Registry, that is, 100 per cent microscopic confirmation of the diagnosis of cancer, is not found in most state and central cancer registries.

The cases in this series originated in forty-six hospitals and one cancer detection clinic, and were submitted voluntarily by the pathologists of the respective institutions. The latter are located in six communities of the Detroit metropolitan area and fifteen cities in other parts of Michigan. Of the 7,444 cases, 5,110 are from the Detroit metropolitan area and the remaining 2,334 are from other parts of the state. The method of reporting cancer cases from hospitals is an excellent one and when reporting is complete, would encompass at least 75 per cent of all cases of cancer which occur in a given area. This estimate is based on the experience of others (Dorn and Cutler;[2] Griswold et al[3]) with large series of cases and would, of course, vary from area to area, depending on the accessibility and availability of hospitals and pathology laboratories and on the general level of medical practice in the area.

Although hospitals in all major cities in the state are represented in this series, several major hospitals are completely lacking and most of the hospitals contributing case reports are represented only nominally or in small degree. Actually, twenty-six hospitals have submitted less than 100 cases each and only five hospitals have submitted more than 500 cases each. Obviously, the total number of cases in this series does not reflect a complete record of all or even 75 per cent of the cancer cases occurring in Michigan during this period (1950-1956) and this is readily apparent from a comparison with related figures from other sources. For example, in their 1947-1948 survey, Dorn and Cutler estimated the number of newly-diagnosed cases of cancer during the year 1947 in

The Michigan Tumor Registry is sponsored by the Michigan Pathological Society; American Cancer Society, Southeastern Michigan Division; Detroit Institute of Cancer Research and the Michigan State Medical Society. The Registry receives its financial support from the American Cancer Society, Southeastern Michigan and Michigan Divisions.

the Detroit region (actually Wayne County) as 5,996. As a further example, the number of cancer deaths reported to the Michigan State Health Department for the period covered by this survey (1950-1956) totals 67,923.[4]

organ systems and not for separate organs, except for some components of the genital tract. The largest number of cases occur in the digestive organs which alone account for more than 25 per cent of the total number. Genital organs and

TABLE I. NUMBER OF CASES AND PERCENTAGE DISTRIBUTION BY SITE AND SEX

Site Group and Statistical Code[5]	Male	Per Cent of All Neoplasms	Female	Per Cent of All Neoplasms	Total Both Sexes	Per Cent of All Neoplasms
Buccal cavity and pharynx (140-148)	255	3.4	59	0.8	314	4.2
Digestive tract and peritoneum (150-159, exclusive of 156)	1,138	15.2	764	10.2	1,902	25.5
Respiratory system (160-162)	498	6.6	72	0.9	570	7.6
Breast (170)	14	0.1	1,012	13.5	1,026	13.7
Genital organs (171-179)	491	6.5	960	12.8	1,451	19.4
Urinary tract (180-181)	374	5.0	147	1.9	521	6.9
Skin (190-191)	283	3.7	167	2.2	453**	6.0
Brain and other parts of nervous system (192-193)	137	1.8	92	1.2	230*	3.0
Endocrine glands (194-195)	44	0.5	123	1.6	167	2.2
Bone (196)	33	0.4	24	0.3	57	0.7
Soft tissue (197)	59	0.8	59	0.8	118	1.6
Lymphatic and hematopoietic systems (200-205)	234	3.1	134	1.7	369*	4.9
Other and unspecified sites (156, 163, 198, 199)	163	2.1	100	1.3	266**	3.5
Totals	3,723		3,713		7,444†	99.12% (100%)

*Includes 1 unspecified.
**Includes 3 unspecified.
†Includes 8 unspecified.

The significance of the hospital and community distribution is further lessened by the fact that the latter denotes only the hospital in which the patient was treated and does not necessarily signify the location of the patient's residence. Such information might be of distinct value in epidemiological studies relating to cancer but this has not been included in our clinical data.

Composition According to Site and Sex

Table I shows the distribution of the 7,444 malignant neoplasms by site groups for both sexes. As can be seen, the total number of cases for each sex is essentially equal. These findings are somewhat at variance with the findings of Dorn and Cutler who found 24,525 female and 21,865 male patients out of a total of 46,390 newly diagnosed cases in their 1947-1948 survey, and also with the results of the Connecticut survey in which Griswold and his group reported 39,628 females and 35,866 males out of a total of 75,494 cases. This difference between our material and the two large series quoted suggests that our material does not represent an adequate sampling of the population involved.

The anatomical site classification and coding in Table I is based on the Statistical Code of the International Statistical Classification of Diseases, Injuries, and Causes of Death.[5] Because of space limitations, numbers of cases cited will be for

breast are second and third, accounting for 19.4 per cent and 13.7 per cent, respectively, of the total (Table I). Thus nearly half of the malignant tumors in this series originated in the digestive system and genital tract.

The most striking sex differences are noted in the breast, respiratory system, and genital organs, with marked, but less striking, differences in the two groups comprising buccal cavity and pharynx, and digestive tract and peritoneum. Cancer of the breast is extremely rare among the males, accounting for only 0.1 per cent of all the tumors in this series, whereas 13.5 per cent of the total number originated in the breast in the females in this series. When breast and genitalia are grouped together, the sex difference is even more striking. Both of these classifications in females comprise over 26 per cent of the total number of cases as against less than 7 per cent in males (Table I). In other words, in a little more than half of the females in this series, the cancer originated in the breast and genitalia whereas these two organ groups accounted for less than 14 per cent of all the male cases (Fig. 1).

On the other hand, there were more than seven times as many cancers of the respiratory system among the males as among the females. Expressed in percentages for each sex, in 13.3 per cent of the males cases, the tumors in this group orig-

inated in the lung in contrast to only 1.9 per cent of the female cases (Fig. 1).

Cancers of the digestive system in this series lead all other site groups for males, constituting 30.5 per cent of all male cases. This means that almost one in every three cancers in males occurred in the digestive system. For the female group, the comparable figure in the digestive system is 20.2 per cent or one in every five cancers (Fig. 1). (Liver and bile duct tumors, which are included in the cancers of the digestive system, occur more often in this series in females).

Thus, exclusive of the breast and genital organs, there were more male than female patients among those having the more commonly occurring tumors. Of the less common forms of cancer (such as those of the endocrine glands), the female patients show a higher proportion of the total than the male. In the soft tissue group, both female and male patients in this series exhibit an equal proportion of the total number of cases (Table I).

Composition According to Race

The cases in this series have been divided into "white," "Negro" and "other and unspecified." (504) in the miscellaneous and unspecified category decreases considerably the number of cases available for this portion of the study. But in any case, it is not possible to draw any conclusions regarding the total incidence for racial groups

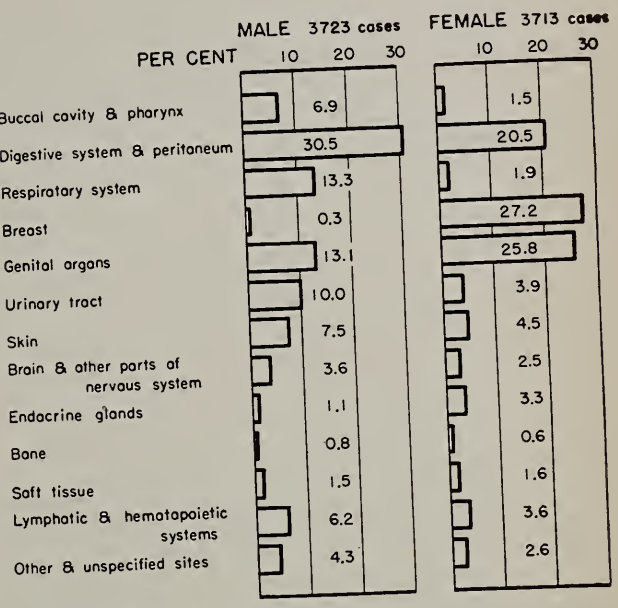


Fig. 1. Comparison of percentage distribution of cases by site groups.

TABLE II.

DISTRIBUTION OF CASES WITH KNOWN RACE ACCORDING TO SITE GROUPS AND SEX

Site Groups	Number of Cases						
	White		Total White	Negro		Total Negro	Ratio of White to Negro
	M	F		M	F		
Buccal cavity and pharynx	221	46	267	22	11	33	8.09:1
Digestive system and peritoneum	941	603	1,544	134	106	240	6.43:1
Respiratory system	442	63	505	46	9	55	9.18:1
Breast	12	821	833	1	105	106	7.85:1
Female genital organs		717	717		178	178	4.62:1
Male genital organs	400		400	61		61	6.55:1
Urinary tract	330	115	445	24	12	36	12.36:1
Skin	241	145	387*	6	8	14	27.64:1
Brain and other parts of nervous system	125	87	213*	5	3	8	26.62:1
Endocrine glands	41	101	142	0	15	15	9.46:1
Bone	27	16	43	6	3	9	4.77:1
Soft tissue	46	49	95	6	5	11	8.63:1
Lymphatic and hematopoietic systems	203	116	320*	18	10	28	11.42:1
Other and unspecified sites	123	74	199**	24	11	36*	5.52:1
Totals	3,152	2,953	6,110†	353	476	830*	7.36:1

*Includes 1, sex unspecified.
**Includes 2, sex unspecified.
†Includes 5, sex unspecified.

The latter grouping includes a few cases of races other than Negro, for example, Chinese, American Indian, but for the most part it signifies that the racial designation was omitted from the clinical data which was submitted to the Registry.

According to the above grouping, there are 6,110 white and 830 Negro patients in this series (Table II). The relatively large group of cases from these incomplete figures, and furthermore, no attempt will be made to arrive at any conclusions regarding racial susceptibility for specific sites or site groups. However a comparison of numbers of cases and ratios for Negro and white in the various site groups has been made and attention will merely be called to those which appear to be most significant.

TABLE III. NUMBER OF CASES IN EACH SITE GROUP ACCORDING TO AGE IN DECADES

Site Groups	Age									Total
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70 and Over	Unsp.*	
Buccal cavity and pharynx	1	0	5	20	48	61	101	73	5	314
Digestive system and peritoneum	3	2	22	74	221	451	691	426	12	1,902
Respiratory system	3	1	3	15	81	186	217	61	3	570
Breast			20	97	275	239	229	161	5	1,026
Female genital organs		7	36	146	216	266	200	82	7	960
Male genital organs	1	4	26	42	35	57	154	167	5	491
Urinary tract	16	3	3	24	54	116	181	123	1	521
Skin	2	2	18	33	65	88	111	115	19	453
Brain and other parts of the nervous system	30	12	14	28	31	66	38	10	1	230
Endocrine glands	9	6	27	24	32	35	24	10		167
Bone	7	15	11	7	3	6	3	5		57
Soft tissue	8	8	7	8	18	22	28	17	2	118
Lymphatic and hematopoietic systems	8	11	35	42	54	77	106	35	1	369
Other and unspecified sites	3	1	4	27	47	60	86	37	1	266
Total in each decade	91	72	231	587	1,180	1,731	2,168	1,322	62	7,444

*Age unspecified.

Table II shows the distribution into site groups for both sexes in all those cases in which the race has been specified. The ratio for all cases is 7.36 white to 1 Negro. The most significant variations from this ratio in the more commonly occurring tumors are seen in those of the skin, urinary tract and respiratory tract where the ratio is increased in favor of the white group, and in those of the genital organs where the ratio is increased in favor of the Negro group. Among the separate organs of the genital tract (not listed in any table) there are 399 cases of malignant tumors of the cervix with known racial designation, of which there were 280 white and 119 Negro. Expressed in percentages, 25 per cent of all the cancers in the Negro females occurred in the cervix in contrast to 9.4 per cent of the white females for the same site. While in the male genital organs as a group, there was a higher proportion of Negro cases than in most of the non-genital site groups, the testis, alone, showed an unusually low number of Negro cases, three as compared to eighty-one white of a total of eighty-four cases with race specified.

The most marked difference in racial occurrence is evident in the cancers of the skin (both carcinoma and malignant melanoma) which show a white-Negro ratio of 27.6 to 1. In the less frequently occurring tumors (such as those of the brain, the endocrine glands, and the lymphatic and hematopoietic systems) the ratio in favor of the whites is also increased. In the most frequently occurring group of cancers (those of the digestive tract and peritoneum) there are relatively larger numbers of Negroes than in the total series. This is due to a proportionately larger number of tumors of several organs of this group, notably the esophagus and stomach, found in Negroes.

Age Distribution

The history of all of the cases received by the Registry should include the age of the patient and this procedure has been followed in all except sixty-one cases of malignant neoplasms. Although not expressly stated, the age designated is presumed to be the age of the patient at the time of diagnosis, whether it be at autopsy or at surgery. There are 355 cases in which the case was registered at the time of a recurrence of the original lesion and in these cases it has not been specified whether the age given is the age at the time of the initial diagnosis or that at the time of the recurrence. In a further 781 cases, it was not stated whether the lesion was a recurrent or a primary (original tumor) and therefore the same reservation must be made in regard to these cases as to the ones designated as recurrent.

In Table III, all the cases in this series in which the age was specified have been grouped into decades and divided by broad site groups for each decade. Except for a slight decrease in the second decade due to a falling off in the occurrence of congenital tumors, the number of malignant tumors of all sites increases with each decade, reaching a peak in the seventh decade and then falling off rather sharply in the combined period of eighth, ninth and tenth decades, in all categories except those of the skin and male genital organs, where there is actually a slight increase. Those site groups with more frequently occurring tumors which have their peak occurrence in the seventh decade include buccal cavity and pharynx, digestive system, respiratory system, urinary tract, and lymphatic and hematopoietic systems.

Of interest is the changing emphasis on different

sites in the various age groups from the urinary tract (chiefly Wilm's tumor of the kidney) and nervous system in the first two decades to the genital organs and endocrine glands in the early adult years and then shifting to the breast, skin, digestive and respiratory tracts and back again to the urinary tract in the middle to advanced years.

TABLE IV. STAGE OF DISEASE AT TIME OF DIAGNOSIS IN 5,409 CASES

Site Group	Localized	Regional Lymphnode Metastases	Extension Beyond the Regional Nodes and/or Distant Metastases
Buccal cavity and pharynx	158	60	23
Digestive tract	650	425	507
Respiratory tract	198	121	159
Breast	400	346	77
Female genitalia	505	51	163
Male genitalia	321	17	60
Urinary tract	320	27	49
Skin	326	15	8
Brain and other parts of nervous system	165	7	6
Endocrine glands	86	27	25
Bone	30	1	8
Soft tissue	52	5	11
Totals	3,211	1,102	1,096

Status and Extent of Lesion

The status of the neoplasm at the time of reporting, that is, whether this is the original lesion or a recurrence of the original lesion, and the extent of the disease (primary or metastatic) are also among the factors about which information is requested on the Registry history card. Of the 7,444 neoplasms in this series, either the status or the extent of the lesion was omitted in 960 cases. Because of the difficulty of determining the extent of disease in tumors of the lymphatic and hematopoietic System, 294 cases in this category as well as 781 cases of recurrent tumors are also excluded from this part of the study. The state of disease in the remaining 5,409 cases is shown in Table IV.

Of all cases in which the stage of disease at the time of diagnosis was specified, only 59 per cent were reported to be localized to the primary site, and more than 20 per cent had already progressed to distant metastases at the time of diagnosis. In site groups such as the skin, brain, and urinary tract, the majority of cases were localized at the time of diagnosis, but in the breast, a little more than half of the cases showed metastases either to the regional lymph nodes or to distant areas. In the respiratory tract as well as the digestive tract, almost 60 per cent of the cases have already metastasized at the time of diagnosis.

Summary and Conclusion

A group of 7,444 malignant neoplasms submitted to the Michigan Tumor Registry by hospital pathologists throughout the state have been analyzed according to site groups, sex, race, age, and extent of lesion. The sampling represented in this group of neoplasms is shown to be incomplete both in numbers, geographical distribution and in certain essential data. However, the basic method of voluntary submission of cancer data to a central agency through the medium of hospital reporting is considered to be a good one. The collection and analysis of cancer data on a statewide basis is a necessary prerequisite for estimating the magnitude of the cancer problem and for indicating the areas of diagnosis and treatment in which emphasis should be stressed.

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A Cancer Registry Program

II. Responsibilities in the Development and Maintenance of a Cancer Registry

By Harry M. Nelson, M.D.
Detroit, Michigan

THE ACTION by the American College of Surgeons in making individual hospital registries an accreditation requirement to meet the minimum standard for approval of a cancer program, has focused new interest on central registries as well as on individual hospital registries.

This is an understandable development and one that was anticipated and certainly hoped for by the College of Surgeons. The idea of a continuous and systematic audit of the cancer situation over a large geographic area is a compelling one to those interested in a cancer control program. This is the idea of the central registry and it requires, therefore, no special pleading.

Historically, the central registry preceded the individual hospital registry. Experience proved, however, that any kind of a central registry could only be built on the sound foundation of a group of well established hospital registries. With 728 approved hospital cancer facilities[1] already in existence, and many more to be added from year to year as a matter of course, the outlook for the establishment of successful central registries is today very bright indeed. The new concept of the hospital cancer registry being promoted by the College of Surgeons has already made the central registry a realizable and practical objective.

While conditions are favorable to the establishment of both central and hospital registries, the ultimate success of either depends, perhaps more than on anything else, on the discipline and foresight with which the question of responsibility is determined from the start.

As far as the individual hospital registry is concerned this question already has its formal answer. The responsibility for the hospital cancer program, according to the requirements of the American College of Surgeons, rests with the hospital Committee on Cancer. In the 1955 edition of the College's *Manual for Registration and Cancer Clinical Activities,* under the section on "Minimum Requirements for Approval of a Cancer Registry and Cancer Clinical Activities," the role and responsibilities of the hospital Committee on Cancer are stated as follows:

> "There shall be a Committee on Cancer of the hospital medical staff consisting of physicians directly concerned with the diagnosis and treatment of cancer that shall be appointed by the appointing authority of the medical staff. The duties of this Committee shall be to initiate, supervise and appraise the cancer program and to report to the medical staff at least annually. It shall maintain close liaison with the Tissue Committee."

As an integral part of an approved hospital cancer program, the hospital cancer registry is thus put within the province of the authority and responsibility of the hospital Committee on Cancer. Since the purpose and function of the cancer registry may be regarded as being primarily statistical, it becomes the very important job of the Committee on Cancer to coordinate and to maintain in alignment the statistical and clinical phases of the hospital cancer program.

It is important from the viewpoint of maintaining the necessary discipline that we regard the work of the cancer registry as being primarily statistical. The cancer registry can make its most important contributions to the clinical aspects of the cancer program only if it performs its own special tasks with the strictest regard for the necessary statistical disciplines. At the same time, however, we must be careful not to equate the terms "statistical" and "clerical."

It is true that the day by day activities of the registry, including the routine abstracting of charts, the cross-indexing and filing of records and other such technical jobs, can be carried out efficiently by a capable medical secretary.

However, this simple clerical image of the job is shattered the moment we realize that the

Dr. Nelson is Chairman, Michigan Cancer Coordinating Committee.

registry is required to compile records and obtain follow-up on private as well as on clinic patients. To do this successfully, the registry must have the active support and cooperation of the entire medical staff. An objective such as this can be achieved only by a committee of the staff.

Furthermore, the registry will from the very beginning face such administrative problems as space and personnel requirements and the spelling out of working relationships with other existing units of the hospital, such as the record room and the cancer clinic. All of these are problems which can be handled effectively only by a staff committee vested with proper authority.

Problems relating to existing records and record-keeping procedures must be worked out jointly by the Committee on Cancer and the Committee on Records. Ground rules for operation of the registry, that is, decisions on what will be considered a diagnosis of cancer, methods of recording stage and grade of disease, purpose of the treatment, et cetera, must be established by competent medical authority for the guidance of the clerical staff.

Nelson and Jennings[2] explain the idea of the hospital registry, as it is being promoted by the College of Surgeons, as follows:

> "The philosophy of the individual hospital registry, as now required by the American College of Surgeons, is essentially that of a medical audit for cancer patients. It provides a tool for measuring the quantity and quality of medical care provided for cancer patients in a given institution.
>
> "The cancer registry is interested primarily in helping that patient who has cancer. It does this in several ways. First, it provides assistance for periodic follow-up information. Second, it makes possible the early detection of recurrent or metastatic diseases which might have been missed or ignored. Third, it leads to the evaluation of results of treatment and in the end helps to determine the best method of cancer therapy.
>
> "By requiring accurate information about histologic diagnosis, clinical extent of the disease, methods of treatment and other data, the cancer registry encourages better medical records. In simplest terms, it may be thought of as a mirror which reflects to the hospital staff what is good and what is bad with respect to the diagnosis and treatment of cancer in their institution."

In view of the nature of the medical audit which the philosophy of the registry demands, it is obvious that physicians on the hospital staff must acknowledge to themselves the need for a cancer registry, must sincerely want it, without reservations, if they are to give their whole-hearted support and interest, which it must have to function successfully. Only a committee of the staff, with the proper authority, can hope to do the necessary job of winning this kind of support and consideration.

It is clear, therefore, that the responsibility for the hospital cancer registry which is vested in the Committee on Cancer is not just a formal arrangement. It goes to the heart of the matter. The registry can be made as good a mirror of the cancer situation in a hospital as the medical staff desires, and the key to the desires of the medical staff is the Committee on Cancer.

In going from the hospital registry to the establishment of a central registry—that is, a registry for the geographic area in which the cancer records of a number of cooperating institutions are pooled—we find the same fundamental need for responsibility vested in competent medical authority.

The question of responsibility, as it involves competent medical authority, need have nothing to do with the question of sponsorship. It has been found that a central registry can function effectively if it is established under the jurisdiction and sponsorship of any one of such agencies as the Medical Society or any of the medical specialty Associations, the Health Department, the State Universities, the local division of the American Cancer Society, or any combination of these agencies. In all cases it is necessary that the sponsoring agency or agencies have the full co-operation of the hospitals, the Welfare Department, the Nursing Association, and other such groups and institutions.

However, regardless of the nature of the sponsorship under which the central registry is established, it is imperative, as a first condition for success, that its work be made the responsibility of some competent authorized medical group.

One reason why competent medical authority is essential to guide, counsel and direct the work of a central registry is that a central registry has to be handled as a two-way operation if it is to succeed. It is dependent for its success on the co-operation of the participating institutions, and this co-operation is not just a simple matter of disposition or good will but may involve, as it often does, a variety of problems which require for their solution the closest liaison with the vari-

ous hospital Committees on Cancer. In turn, the value and success of the individual hospital registries can be enhanced in many important ways by a central registry which enjoys the confidence and respect of the Committees on Cancer. It follows, therefore, that if this two-way operation is to mesh, with maximum advantage to the cooperating institutions and the central registry, there must be the same kind of competent medical authority on the level of the central registries as is to be found on the level of the individual hospital registries.

There is another important condition governing the success of a central registry: Its functions must be organized within the frame work of clear-cut definitions regarding jurisdiction and responsibility in all areas involving the collection, maintenance, use and disposition of the accumulated records.

There must be agreement among all concerned, carefully established in advance, regarding the methods to be used in the handling of cancer patient records because of their confidential nature. There must be similar agreement regarding procedures for identifying the participating institutions in the published reports of the registry's activities. Again, to avoid the danger that unauthorized use might be made of the materials accumulated by the central registry, a properly constituted medical committee must be established for the purpose of reviewing all requests by individual investigators interested in using the registry's records.

Regardless of the type of sponsorship under which the central registry is established, the two conditions we have discussed above, that is, the need for (1) competent medical authority to guide, counsel and give direction to the registry and (2) the need for organizing its functions within a framework of clear-cut definitions regarding the handling and disposition of its records, are basic to the successful operation of any central registry.

If these two conditions are kept in mind, the problem of sponsorship should not raise serious difficulties. In those states that have cancer coordinating committees, these committees have usually been instrumental in taking the necessary first steps in obtaining approvals and clearances for as well as participation in the establishment of central registry programs. In other states, the cancer committee of the state medical society has functioned admirably in the same capacity. The cancer registries in a number of counties, functioning on a county-wide basis, were initiated by the cancer committees of the medical societies of these counties and have continued to function under the supervision of these county societies.

The increasing interest in central cancer registries because of the encouragement they give to uniformity of reporting and comparative appraisals is well illustrated by the action taken by the American Cancer Society. At the regular meeting of the Society's Board of Directors, on October 22, 1955, the following resolution was passed, after it had previously been passed by a number of subcommittees:

> "The Subcommittee recommends that the American Cancer Society, in view of its warm approval of the concept of Cancer Registries, promote the support of such approved registries through assistance, guidance, and consultation, but that it does not encourage the direct financial subsidy of individual hospital registries. However, it is recommended that the American Cancer Society extend its support in every aspect, both financial and otherwise, to the careful development of central registries which can return valuable service and assistance to their participating hospitals."

In conclusion, now that conditions are becoming increasingly favorable to the establishment of central registries, it should be noted that a central registry can be established and can function effectively at the level of any geographic area, community, county or state. As a general rule it has been found that the value of a central registry, in terms of its services to the participating hospitals, is almost directly proportionate to its accessibility to these hospitals. In other words, the ease with which the services of the central registry can be made available to its participating hospitals should be a paramount consideration in determining the location of the central registry as well as the extent of the geographic area it is to serve. These considerations should not be construed to mean that a state-wide registry can be of no value. The point being made is that a state-wide registry should be located near the major hospital registries and should not be allowed to become excessively large and cumbersome, which would interfere with its necessary accessibility to the participating hospitals. Where because of special circumstances a state registry

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Physicians and Citizenship

By Honorable G. Mennen Williams, Governor
Lansing, Michigan

YOUR KIND invitation to address you is very much appreciated, indeed. My wife and I have had the keenest personal affection and admiration for a good number of your members, whom we count as near and dear friends. I have also had very pleasant and rewarding experiences with those of the medical profession who serve the State in an official capacity.

Now, on the important side of the family, as long as physicians are giving the nursing profession their just due, my wife who is very closely allied with that noble group is something of a zealot in the cause of doctors. Indeed, she has just about convinced our son, who seems to be acquiring most of the good and necessary qualities for a successful career of public service, that he will find more joy and satisfaction in the medical profession than in politics. Except for a certain pride of authorship, I am forced to confess that either career offers large opportunities not only for personal realization and satisfaction but public service and benefit.

Despite the timeliness of your invitation and my anticipated pleasure in talking to all of you, I suddenly found myself with the speaking date only a couple of days away and no thoughts reduced to order, not alone to paper.

My staff had obtained a great deal of information from our unfailing sources of counsel and information, Dr. Albert E. Heustis, the state public health director, and Dr. E. C. Swanson, the secretary of the State Board of Registration in Medicine. But I still felt somewhat in doubt as to what message I might bring to you tonight.

As I always do when I have a painful medical problem, I undertook to consult with our family doctor—God bless him. When I described to him the nature of my case, he thought for a few moments—on my long-distance telephone time—and prescribed as follows: "Doctors," said he, "get pretty well tied up with the exacting demands of their profession, and sometimes feel a little hesitant or a bit out-of-touch with the problems of government and citizenship. Why don't you talk about physicians and citizenship?"

Well, I can certainly understand that the vast encyclopedic knowledge required of a physician in the first place and the revolutionary changes taking place almost daily, to say nothing of the insistent demands of more and more patients, must more than tax any human being. However, to talk about a particular group's citizenship is a very ticklish charge, indeed. But my good doctor has prescribed strong medicine before, which he made me swallow. So here goes.

First, though, let me say that, as you well know, the most perfectly prescribed medicine may have a peculiar reaction due not to its intrinsic merits or faults but due to the character or perverseness of the patient. Consequently, if Dr. Ken Johnson's good advice comes through diluted or even polluted, don't blame him, but be resigned to taking stronger measures with your Governor.

For a long time, I have been intrigued by the dichotomous—(I wouldn't dare use that word on anybody but a doctor, and it really is not strong enough to get back at them for some of the twisters with which they have mystified me) —intrigued by the dichotomous picture the public have had of the medical profession.

Even dichotomous isn't the right word. Some people have one idea, some another, and not a few have both ideas, sometimes at the same time. Some people believe you are saints, some think you sinners, and some feel there is both a Dr. Jekyll and a Mr. Hyde.

Perhaps two anecdotes will illustrate generally what I mean. I repeated the first when, some years ago, I was charging my commission to study whether Michigan had an adequate number of doctors. This actually happened. A friend of mine was desperate because his dearly beloved little daughter was ill. He had called his own doctor, only to find he was not available. He next called another recommended doctor, only to reach the same conclusion. It was not until the seventh try that he was successful in getting

Excerpts from address given before the Michigan State Medical Society, Officers Night Banquet, Grand Rapids, Michigan, September 25, 1957.

a physician to come to his home to attend his ailing child. The doctor treated the child. My friend walked downstairs with him to the door. Just before leaving, the strange doctor handed my friend a pamphlet against "socialized" medicine, and the pamphlet said: "Certainly you don't want America to get into a situation where you can't have the doctor of your own choice."

Incidentally, however painful this particular situation, I want to say a fervent amen to the ideal of having a system where everyone has both the right and the opportunity of having the doctor of his own choice.

Now let me take up the other side of the matter. A very close friend of mine, a brilliant public figure had a tragedy in his life when his wife was severely stricken. He has given me permission to quote from a letter written as a result of this experience. The only changes I have made in this excerpt I am going to read to you is to substitute a fictitious name for the name of my friend's wife. This is what my friend wrote:

"I should like to observe, at this point, that I have developed a new and tremendous regard for the medical profession and its auxiliaries. The doctors who originally came into the case as strangers, both to me and Mary, have, in almost every instance, become devotees of Mary and intimate friends of mine. I have found in almost each one of them a deep human compassion and anxiety not only to save Mary's life as such, but also to preserve the meaning of her life.

"Their eagerness to do everything they know how to do is endless. Even more impressive is their deep feeling for each patient, and I am swept into the purview of the case as part of the patient. I am treated along with the patient. Amazingly, the doctors who originally started with Mary but no longer have any professional responsibility for her, since her transfer to the National Institute, continue to show as much concern for her now as when she was their charge. They keep in touch with developments. They consult constantly with the doctors now in charge. They visit her regularly after they have finished their own rounds at other hospitals, and on week-ends. I sleep, temporarily, at the house of one of them, because he lives near the National Institute. I have been taken into his own family. His interest and concern for Mary could not be greater for his own child. To these doctors the Oath of Hippocrates is a meaningful thing, and they live largely in accordance with it."

Many of us, I believe, have been perplexed by these two images. The able, dedicated, endlessly kind and self-sacrificing friend of man we know. And the public impression sometimes broadcast, generally by the AMA, and especially in the past.

Against this background, may I for a few moments comment on doctors and citizenship here in Michigan. It is needless to say that doctors have not always agreed with me, or I with them. However, I am happy to say that as time goes on, not only do I increase the warmth of my friendships and the depth of my admiration and gratitude for their individual deeds and worth, but I find multiplying the number of public questions on which we agree or upon which I can extend to the medical profession here in Michigan sincere commendation.

It is a matter of satisfaction to me that the Medical Society has established a special committee to maintain liaison with the Governor's office—and I sincerely hope that I will have the opportunity of meeting often with that committee in the future.

All of us, as citizens, have general responsibilities as citizens. But it seems to me that members of the medical profession have a special responsibility of good citizenship—and that is to do all they can to help see that medical services are made available to all who need them.

Certainly, the medical profession in Michigan has made great strides in discharging that responsibility. Here in our state, through the vision and work of Michigan doctors, the system of pre-paid medical and hospital service was born. We are having our normal and expected problems in making this great idea work. But I think it is to your great and lasting credit that you *did* pioneer in this field, and that the Blue Cross and Blue Shield systems as they were developed in Michigan have become a pattern for the whole country.

You have shown good citizenship, too, in your co-operation with the State Office of Hospital Survey and Construction in the community hospital building program under the Hill-Burton Act. In the last eight years, up to January, 1957, we have succeeded in planning, financing and completing fifty-eight hospital projects, involving more than 3,400 additional beds. These hospitals have brought the best of care to the people of every part of Michigan. The support of Michigan doctors was indispensable to this program.

The highly-successful operation of the Medical Society's placement bureau is another example of working citizenship. By bringing together the physician looking for a place to practice, and

the community that needs his services, the Society's placement bureau has done much to ensure good medical care in all parts of the State.

You have shown your public spirit and sense of public responsibility in many other ways—by the participation of so many doctors in Civil Defense; by the sympathy with which many of your members have dealt with the problems of refugee doctors and graduates of foreign medical schools; by such things as the restoration of the Beaumont memorial at Mackinac Island.

On the subject of the Beaumont House, let me express to you again the thanks of the people of Michigan for the preservation of this historic spot where Dr. William Beaumont did his invaluable work on the human digestive process. And let me say that I hope your action in restoring the Beaumont House will be an example to other public-spirited groups.

Soon we will open, at the Straits of Mackinac, the world's greatest bridge, a testimonial in steel and concrete to the spirit of the people of Michigan. The presence of that mighty bridge is certain to attract many more people to the Straits area which is so rich in the history of Michigan and America. I hope that Beaumont House will be only the first of many such projects, designed to preserve in authentic restoration, the historical importance of this crossroads of adventure, exploration, religion and commerce.

It was a pleasure to recognize the job done on the Beaumont Memorial project by appointing one of its leaders, Dr. A. H. Whittaker, to the Mackinac Island State Park Commission.

There are many other areas, I am sure, in which the medical profession has demonstrated its deep concern for the public good, and its willingness to carry out the special responsibilities of doctors as one of our most influential and important citizen groups.

My suggestion to you tonight can be put in the form of a simple question: Couldn't we have a little more of this? Couldn't we merge together these two conflicting images which the profession presents to the public—the image of the individual doctor, kind, self-sacrificing, deeply concerned with his patient as a human being and a friend; and the image of the organized doctor who all too often seems to appear to the public in a far less favorable light?

This question I raise not in a spirit of criticism, but on the contrary, in the hope that the public problems of the people of Michigan will receive more and more of your attention. That hope I express for two reasons: first, because there are many public problems which literally cannot be solved without your counsel and co-operation; and secondly, because, in my own experience, whenever doctors, working as citizens and with other citizens, have given their attention to public affairs, they have always emerged as able, devoted and effective public servants, who have helped greatly to develop programs beneficial to all the people.

The greatest of those problems which I say can't really be solved without your help, are in the field of public health. Last year I appointed a Michigan Public Health Study Commission, to which a number of eminent doctors gave their time and effort generously. This commission returned a set of twenty-three recommendations for the improvement of public health, and it is my understanding that many of these recommendations have received endorsement in principle by the Medical Society.

Specifically, I suggest to you that you review the report and recommendations of the Public Health Study Commission, and give us your best and latest thought on the questions dealt with. These problems of public health must be met. We cannot sweep them under the bed. We may honestly differ about how to meet them—but we can be sure that we cannot meet them properly and adequately without the counsel and co-operation of Michigan physicians.

In approaching public problems which have medical aspects, let me assure you that the counsel and co-operation of the medical profession will be eagerly welcomed by my administration. And to make clear what I mean by that, let me give you two pledges:

First, that as long as I have anything to say about it, the public policy of this state shall zealously guard and protect the personal relationship between doctor and patient, and the freedom of the patient to choose his own doctor.

And, secondly, that on any matter which affects the medical profession, the counsel and advice of representatives of the profession will be sought—as I have always sought it in the past—and will be given the fullest consideration.

Address of Welcome

By Congressman Gerald R. Ford, Jr.
East Grand Rapids, Michigan

It is a very real privilege and honor to join with Dr. Moleski to welcome you as delegates to this 92nd annual convention, on behalf of the City of Grand Rapids and the immediate surrounding area.

Grand Rapids, as you who have been here before know, is proud of its community. We think we have the outstanding convention facilities in the State. We are mighty proud of our other facilities, such as the hotels and the people who are attached to them. We are most proud of the fact that the people of Grand Rapids are delighted and pleased to have you people as our guests.

I should also like to say that the City of Grand Rapids and surrounding territory is proud of the medical profession that serves all of us. The Kent County Medical Society is one of the outstanding in the State. They do a wonderful job not only in serving the people professionally, but they have done a superb job in broadening their base and doing things community-wise which are important as we move along from day to day.

Sometimes it is said (I don't happen to concur in it) that doctors are too tied up with their needed and essential work to participate in the activities that make a city or a state better in which to live. I do not believe personally that the medical profession is any different from any other group. I think all of us could expand and improve our relationships with the community as a whole, and it has been my observation in the nine years that I have had the privilege of representing this area in Congress that the medical profession has done a better and better job from year to year in participating in community activities, in fighting for and accomplishing things in the area of good causes.

As all of you know, a group of your Michigan State Medical Society goes to Washington annually, in May. They meet with the members of the House and Senate from our State. They are one of the few groups that go there who have a breakfast at eight o'clock in the morning. They are always there, usually ahead of the members of the Congress, and we sort of straggle in anywhere from eight to eight-thirty. Those who go and represent you at that meeting, in my opinion, do a constructive job in presenting your individual problems to the members of the House and Senate from the State of Michigan.

I hope that this tradition, which has been built up of late, will continue and will expand. We in the Congress benefit from it, and I hope and trust that the Society as a whole does likewise.

If I might add just one word on a serious note: It happens to be my responsibility in the Congress, and has been for five years, to be a member of the Committee on Appropriations, which has the responsibility of making funds available particularly to the Army, Navy and Air Force. In that responsibility, I have seen in the last five years the tremendous sums of money which are made available to the technical-scientific personnel in the three branches of the service for research and development. Those of you who are familiar with it know the almost unbelievable advances which have been made scientifically and technically for the benefit of our country, and in this area it is not only for destructive but for constructive purposes, all related to our national security.

Direct appropriations for research and development for the Army, Navy and Air Force have averaged about $1,500,000,000 yearly; if you add to it the overhead, and so on, which is not chargeable to the direct appropriation, it amounts to over $3,500,000,000 a year for just research and development for the military.

As we see the things that are coming now into use that are the direct result of this technical development, such as guided missiles, and now the results in the antimissile missile, which is closer than we think, we wonder this: Have we as a country and as a citizenry prepared ourselves to handle, in our day-to-day living, in our governmental operations, the society in which we are bound to live technically in the years before us?

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Presented to the MSMS House of Delegates, Grand Rapids, September 23, 1957.

Detroit Surgical Association

ABSTRACTS OF PAPERS PRESENTED AT RECENT MEETINGS

Meeting of September 23, 1957

CLINICAL EVALUATION OF AN INTRAVENOUS FAT EMULSION

By Carl Birkelo, M.D., and
Wayne W. Glas, M.D.

An intravenous fat emulsion was administered to thirty-nine patients. These patients were then followed with reference to weight gain, toxic reaction and liver function tests. Some of the patients showed marked improvement in their nutritional status, however, several of the patients also showed some toxic reactions and impairment of liver function.

It was concluded that the intravenous fat emulsion could be administered with caution in selected cases.

PRESENT STATUS OF SURGERY FOR PULMONARY TUBERCULOSIS

By Richard Jankoska, M.D., William Tuttle, M.D.. and Raymond Barrett, M.D.

Statistics for the City of Detroit show that there were 238 more cases of pulmonary tuberculosis discovered in 1955 than there were in 1945. However, the death rate per 100,000 population has decreased from 40.3 to 9.6 in the same ten-year period. This reduction in death rate has been due to the introduction of the anti-microbial drugs, especially Streptomycin and resectional surgery.

The decrease in the death rate is not due to a decrease in the severity of the disease since there were 21.6 per cent new cases in 1955 classified as far advanced as compared to 20.1 per cent in 1945.

Thoracoplasty and resection are the principal methods of surgical treatment of pulmonary tuberculosis with 30 of the former and 232 of the latter being performed at Herman Kiefer Hospital in 1955. Pneumonectomies have decreased eight fold from 1950 to 1955 while segmental and wedge resections have increased three and one-half fold.

The three most common complications in 232 resections were bronchopleural fistula with empyema, 6.8 per cent; persistent space, 4.6 per cent and wound infection 6.4 per cent. There were six deaths in the 232 resections for a mortality rate of 2.5 per cent.

FUNCTIONAL PARTIAL INTESTINAL OBSTRUCTION WITH REVERSED JEJUNAL AND ILEAL SEGMENTS

By John R. Slater, M.D.,
Robert Baruch, M.D., and
Robert M. Whitrock, M.D.

Using dogs for subjects, one foot long segments of ileum and jejunum were reversed. For control, single loops of ileum and jejunum were isoperistaltically transposed. Four experimental groups were:

1. Ileal loop reversed in ileum
2. Jejunal loop reversed in jejunum
3. Ileal loop reversed and transposed to jejunum
4. Jejunal loop reversed and transposed to ileum

The first three groups produced a mild degree of intestinal obstruction with tapering of the loop, dilatation being present at the proximal anastomosis and in the proximal small bowel. The fourth group exhibited rather marked partial obstruction with extensive spindle-shaped dilatation and tendency to perforation at the proximal anastomosis.

It was concluded that in a one month period the reversed segments maintained their original direction of peristalsis. It was also shown that the jejunum had greater relative activity than does the ileum.

Meeting of October 28, 1957

CARCINOMA OF THE CERVIX IN THE THIRD DECADE

By John T. Rogers, M.D.

The author had the opportunity to examine more than 4,000 females under thirty years of age over a twelve-month period of time. Cervical smears were obtained and if positive, biopsies were performed. Twenty-five cases of carcinoma of the cervix were found in patients under the age of thirty.

No attempt was made to discuss methods of treatment. The importance of suspecting carcinoma of the cervix in the young female was stressed.

EXPERIMENTAL RESECTION AND REPLACEMENT OF THE THORACIC TRACHEA

By L. A. Tomatis, M.D., and
Rodman E. Taber, M.D.

Department of Surgery, Henry Ford Hospital, Detroit, Michigan

Many types of artificial tracheal substitutes have been utilized experimentally and clinically to replace the resected trachea. A common fault of most of the substitutes has been the development of stenosis at the junction of the replacement and the trachea. In an attempt to avoid this complication we have developed a prosthesis constructed of Ivalon sponge encasing a stainless steel spring. After partial excision of the thoracic trachea, the tracheal ends are sutured to the prosthesis over a small stainless steel band. The latter feature has been designed to prevent the development of stenosis at the suture lines.

This technique of resection and replacement of the dog's trachea was demonstrated with slides and the post-operative results discussed.

A clinical case in which this operative procedure was utilized was described.

A REVIEW OF THE CASES OF TETANUS AT DETROIT RECEIVING HOSPITAL, 1952-1957

By William J. Kelly, M.D.

Fifteen cases of Tetanus are presented from Detroit Receiving Hospital in the last five years with a 33.3 per cent mortality. Three of the five fatal cases were associated with open fractures. There were seven cases associated with puncture wounds. There were no cases where the site of origin was not obvious and there were no cases associated with elective surgery. The distribution was about equal between males and females and the ages ranged from 3 years to 67 years. There were no cases associated with previous immunization, and there were four cases that had received the routine so-called prophylactic dose of 1,500 units ATS. Positive cultures for Clostridium Tetani were obtained in 20 per cent of the cases.

The treatment consisted of local wound care, Penicillin, relaxants or curare-like substances, tracheotomy where needed and general supportive care.

Few conclusions can be drawn from such a small series, but it was the impression that a tracheotomy should be done sooner and more frequently than has been reported in this series.

Meeting of November 25, 1957

SEGMENTAL FRACTURES OF THE TIBIA

By John Youngs, M.D., and
Maurice Castle, M.D.

Nine cases of segmental or butterfly fractures of the tibia were presented by the authors. With this difficult type of fracture, immediate bone grafting using ground-up bone chips from the minor fragment were attempted. The results were found to be as good or as superior to immobilization with screws or plates. The healing period varied from six to twelve months. There were no cases of non-union.

ADRENOGENITAL SYNDROME—CASE REPORT WITH 22-MONTH FOLLOW-UP

By Ward M. Smathers, M.D., and
Sander P. Klein, M.D.

A case of the adrenogenital syndrome in a 34-year-old woman was reported. Clinical signs of the syndrome and laboratory findings, particularly 24-hour excretion of urinary 17-ketosteroids were given along with a discussion of the treatment.

This particular patient had a very wild carcinoma of the left adrenal with vascular invasion. When first seen she demonstrated facial hirsutism, an enlarging clitoris, cessation of menses, change in weight distribution and male pubic hair distribution.

All of these conditions reverted to normal within three months of removal of the adrenal tumor and there has been no evidence of recurrence of the tumor.

TREATMENT OF BURNS OF THE HAND

By Martin Katz, M.D.,
Donald Kapetansky, M.D., and
Joseph Posch, M.D.

*Department of Surgery,
Detroit Receiving Hospital*

The authors presented more than forty cases of burns of the hand. Open and closed methods of treatment were discussed and the prevention of infection was emphasized. Early skin grafting was commented upon and reconstructive procedures consisting of split-thickness skin grafts and pedicle grafts were illustrated. In almost all cases multiple surgical procedures were required.

Meeting of January 27, 1958

HISTOPLASMOSIS—A DIAGNOSTIC PROBLEM

By Harold Bartko, M.D., and Robert Webster, M.D.

This paper was based upon several case studies and stressed the ability of the disease to mimic lesions which are responsive to surgical treatment.

Etiology of the condition was discussed and several thoracic surgeons commented upon the frequency with which the lesion occurs in the lungs. The predilection of the disease for the mouth and anus was mentioned. An unusually interesting case of histoplasmosis producing lesions throughout the entire digestive tract was presented with color slides which very effectively demonstrated the lesions in the small intestine.

A PRELIMINARY SURVEY OF THE INCIDENCE OF CANCER OF THE RETAINED CERVICAL STUMP

By Charles Darling, M.D.

This paper dealt with the evaluation of carcinoma of the cervix in 17.000 women examined at the Yates Memorial Clinic in a five-year period from May, 1951 to May, 1955.

The incidence of women having undergone supra-cervical or total hysterectomy is discussed and a comparison was made between the incidence of carcinoma in the retained cervical stump as against the incidence of carcinoma in cervices in which the body of the uterus is intact. In this large series of cases it was found that there was practically no difference between the incidence of carcinoma in the retained cervical stump as against carcinoma in the cervix in which the body of the uterus is intact. This was in contrast to previously accepted opinion that carcinoma of the cervical stump was two to four times as prevalent as carcinoma in the cervix of the intact uterus.

CHORDOMAS—PRESENTATION OF THREE CASES

By Robert G. Borchak, M.D., and Leonard VanRaaphorst, M.D.

Chordomas are unusual tumors of notochordal origin which may occur anywhere along the cerebrospinal axis from the sphenoid to the coccyx. They are generally malignant.

In the past, surgical treatment prior to 1940, has been little more than biopsy. Details of successful surgical extirpation of the tumor and lower sacrum and coccyx with preservation of rectal and vesical function in one case were presented. Slides of the gross, microscopic, and x-ray appearance pre and postoperatively were shown.

THORAZINE JAUNDICE

(Continued from Page 586)

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Editorial

PROGRESS IN THE DETECTION AND TREATMENT OF CANCER

In reviewing the progress of the profession to surround the area of cancer during the past few years, it is heartening to note that where only a short while ago the belief that early diagnosis and treatment of cancer enabled the curing of 25 per cent of those having the disease, today it is almost 33.3 per cent. If it were not for the marked increase of cancer of the lung, the rate of cure would be greater. While this percentage may not seem adequate for what research has occurred during this period, still it is in the ascending phase and encouraging. To put it in the vernacular of baseball, what manager would not be delighted to obtain a 333 per cent hitter to replace one whose average is 250 per cent.

From many places, reports of various types of research all point to a gradual closing-in on all sides; for instance, the recent findings of a Western research group who developed a newer manner of early gastric diagnosis by stomach lavage. Studies by a scientist at the University of Washington have indicated that many digestive tract cancers may be detected while they are in an early and curable stage. The method involves washing out the digestive tract and microscopically searching the sediment for tell-tale cancer cells. Extensive studies by his group have indicated that early cancers and even precancerous conditions may be found by these methods. Hidden cancers—like those of the stomach—have a low cure rate. Of the procedures developed for detecting stomach cancer, one called "chymotrypsin lavage" has been found in practice to be the simplest and most dependable. This calls for inserting a narrow tube into the fasting stomach, withdrawing the contents, pouring in a solution containing chymotrypsin and, after ten minutes, withdrawing it and examining the sediment under the microscope. The enzyme chymotrypsin dissolves the mucus which coats the stomach lining, loosening cancer cells from its surface. This method showed up nineteen of twenty stomach cancers in one series. Other measures, some of them in early experimental stages of development, promise to improve diagnosis in other areas of the digestive tract.

Recently, Dr. Warren H. Cole, head of the department of surgery at the University of Illinois, stated he believed the outlook for conquering cancer through the fields of chemotherapy and immunology was "very optimistic." In this generation, he states, perhaps we may see the development of a drug to cure one type of cancer, namely, that of the breast. Eventually, Doctor Cole thinks science will produce a vaccine to prevent cancer or an anti-toxin agent to kill cancer cells that are already present in the human body, or perhaps both. Doctor Cole reports that for some time he has examined cancer patients for cancer cells circulating in the blood. If the cancer cells are few or not present, the patient's chances of cure by surgery are good; if there are cancer cells present in any appreciable amount, the outlook for a surgical cure is dim. In five years of research in his clinic, he and his assistants have found floating cancer cells in a surprising number of cancer cases: 15 per cent in curable cases and 35 per cent in incurable patients.

Doctor Cole's group also has been irrigating wounds with chemicals in animals that have been inoculated one hour previously with cancer cells. This is to destroy cancer cells dislodged into the bloodstream during operations. One of these drugs giving favorable results is Chlorpractin.

In further attacks on cancer, the works of Sir Stanford Case of London on the role of adrenalectomy in cancer of the breast and that of Dr. Rolf Luft of Stockholm on the place of hypophysectomy also in cancer of the breast have been enlightening.

On another front, the startling news recently reported by the American Cancer Society of the work at the national cancer institute, Bethesda, Maryland, by Dr. Ray Hertz, who reported that a number of women with advanced cancers have been receiving an anti-cancer chemical for two years, is exciting.

He stated that cells of one particular type of cancer were duped into committing suicide by absorbing a chemical closely resembling a vitamin they needed for growth. The cancer studied is a hormone-producing tumor called choriocarcinoma. It occurs in women during the child-bearing process, originating from what normally would

Cancer Control

This month we are featuring articles devoted to the subject of Cancer, the medical and scientific aspects of the disease. We are pleased with the high quality of the manuscripts and are thankful to the authors for their cooperation with our Editor.

Throughout the year, the Michigan Cancer Coordinating Committee is actively serving the profession and the public, and I should like to commend their efforts. This committee was created November 12, 1953 as a voluntary, co-operative effort of the several state agencies interested in cancer. They were:

American Cancer Society, Michigan Division, Inc.
American Cancer Society, Southeastern Michigan Division
Michigan Department of Health
Michigan Health Officers Association
Michigan State Dental Society
Michigan State Medical Society

Cancer education, through the use of various media, has been prominent since the committee's inception. They also have helped to develop and maintain a more efficient and effective, complete dynamic cancer control program in Michigan. They have actually acted as "stimulators" to their respective member organizations in an all-out fight against cancer.

The committee's efforts have been fruitful; results have been good; but its members are the first to caution us that much is yet to be done. The help of each of us is needed to continue the fine work carried on by this group of dedicated individuals.

Geo. W. Slagle.

President, Michigan State Medical Society

President's Message



be the after-birth or placenta. Such cancers, generally rare, spread rapidly through the area and then invade the lungs and brain. They usually kill the patient within a year.

Doctor Hertz stated that the vitamin folic acid is necessary for normal enlargement of the womb during pregnancy. The developing embryo also requires folic acid in great abundance to survive. Investigators believed the cancer also would require folic acid. Researchers developed chemicals so similar to folic acid that they take a special place in the body's cells and crowd out the vitamin.

One group used a compound called methotrexate, known as a vitamin antagonist. This chemical was taken up by the human cancer cells requiring an abundance of folic acid and they soon died. The normal body cells requiring less folic acid were unharmed.

Doctor Hertz said that sixteen women with far-advanced choriocarcinoma have received this methotrexate therapy for two years. Six of them have remained completely free of evidence of disease on the basis of x-ray and physical examinations and tests for the hormone the cancer would release in the urine. Five others showed good response and are free of symptoms. Three showed "decisive original response" and are continuing with the therapy. Two died of the far-advanced disease in the early phase of treatment.

Dr. John R. Heller, director of the national cancer institute, discussing this work and the future possibility of a chemical cure for cancer, states "a solid tumor has apparently been completely suppressed by drug treatment for the first time, offering the possibility that this may be a definite break-through in chemotherapy research. If methotrexate works with choriocarcinoma, there is reason to hope and expect that this and other compounds will work with other forms of cancer."

Dr. Charles B. Huggins, director of the Ben May Research Laboratories of the University of Chicago, adds a very interesting note that 40 per cent of cancer patients can now be benefited in ways not possible ten years ago.

With the research wheels going round and round, constantly narrowing the periphery of the cancer problem, it is possible that the final squeeze is not too far off; therefore a hopeful or positive outlook on cancer is in the picture with greater force than at any time heretofore.

With this gradual brightening of the picture, the unscrupulous who prey on the bewildered and the uninformed whom cancer strikes, and who have been glorified by the term "charlatans," are also being squeezed out of the picture, and we hope into permanent oblivion, by the education of the public through the profession, the governmental agencies, and others interested in the eradication of cancer.

W. A. Hyland, M.D.
Cancer Committee, MSMS

THE MICHIGAN MEDICAL CARE PROGRAM

Michigan Medical Service, through its administrating personnel, insurance experts and staff, has developed a completely new program for the medical care of people of our state. Every suggestion developed by the Opinion Study Report and the suggestions made as a result of two years' work by the two study committees (the Slagle Committee and the Owen Committee), as reported to the House of Delegates by Dr. Max Lichter's reference committee and unanimously adopted, has been incorporated in the new basic policy. The final policy or contract was submitted in detail to The Council at its annual meeting January 30–February 1, 1958, minus the final actuarial figures not then completed but approximated. This report was accepted by The Council unanimously.

The Michigan Medical Service Board of Directors also accepted the format and report, leaving open for last minute, final determination the rates to be charged. These rates have just been determined and approved and the contract presented to the State Insurance Commissioner. His approval will be the final act in making available to the State of Michigan and to all of our subscriber groups who wish to be served by the most complete and comprehensive medical care program ever developed or offered by a physician sponsored plan.

The House of Delegates, in September, 1957, pledged to our people a policy completely exemplifying the desires which they had expressed in the Opinion Study Report, and to our members the type of policy they had indicated in their replies to this Survey. A completely new method of determining fees to be paid for services has at last been developed. Michigan studied this relative value plan more than twenty-five years ago, but at that time found trouble in co-ordinating it.

California studied the policy for many years and arrived at the conclusion which we had previously done in Michigan that no one listing of services and their relative values would be possible. California physicians established and published four values and have been revising their listing ever since its first acceptance. The Michigan Medical Care Insurance Committee has charge of this work and is in the process of making revisions as we find them applicable in Michigan. This standing committee on prepaid insurance, authorized by the House of Delegates, has meticulously studied every movement and sentence placed in the contract which has been written. Not a concept has gone in without their consent.

It has been the duty of Michigan Medical Service, since its inception, to serve the wishes of the Michigan physicians in such a fashion as to attract the approval of the general public, labor, management, farm groups, and others. The Michigan State Medical Society, through its various committees and organizations, including the House of Delegates and The Council, has carried out through Michigan Medical Service the instructions given in the public and physician opinion survey. The whole United States is watching the results of this program.

A new method of determining income limits is provided. The doctor can tell at once whether his participating agreement applies to the individual seeking his services. The CHA program being developed under the leadership of the UAU-CIO is being answered in this new policy and by the physicians of Michigan.

Labor has been preparing to give its members and others who wished to join, a complete medical service without extra charges and has established the Community Health Association with the objective of serving its subscribers by the use of closed panel doctors on salary as referred to in a report in this number of The Journal. (See page 609.)

The medical profession has pledged and must carry out our promised program. If abuses or failure should result—if the profession can not deliver what it is promising, there is only one future for the practice of medicine. If our Blue Shield program, as now modernized, should fail, the Community Health Association or some other plan would attempt this service, but the ultimate result would be government medicine on the theory that the profession itself had failed to carry out its promises. We would then either work under the program as operated by Community Health Association or some other closed panel group, or that failing, the government must step in and administer medical services to the people.

SOME FORGOTTEN HISTORY

The Council of the Michigan State Medical Society, at its annual meeting, January 30-February 1, 1958, received a resolution from The Council of the Michigan Society of Internal Medicine reading:

"The Michigan Society of Internal Medicine is firmly convinced that whenever any agency of the federal or state government assumes responsibility for the medical care of any group in our population, that such a group shall not be considered as medically indigent, and that the fair and standard fee based on the relative value fee schedule, with a unit value of 5 shall apply, subject to modification according to the rise or fall of the cost of providing professional services."

This question of not being indigent was officially resolved by the Michigan State Medical Society in February, 1945, by the Executive Committee of The Council. The House of Delegates, at its meeting in September, 1945, approved a new statement of position with regard to the caring for wards of the government. The statement is:

"It is the opinion of The Council, approved by the House of Delegates, that wards of the government are not indigent. The government, their foster parent, is not indigent."

A committee was formed, with Robert L. Novy, M.D., as chairman, to work out a fee schedule. After a tremendous study, the Michigan Uniform Fee Schedule for Government Agencies was issued with this note:

"This minimum uniform fee schedule has been officially adopted by the Michigan State Medical Society for wards and dependents of government, effective January 1, 1946."

This action was published in The Journal editorial section in November, 1945, page 1216.

The fact that Michigan had this schedule in operation was the final argument which sold the Veterans Administration the Michigan Home Town plan for care of service-connected, ailing veterans.

DIVIDED WE FALL

During the years that Michigan Medical Service has been in operation, and that other Blue Cross-Blue Shield programs have functioned throughout

the nation, the policies and programs have very closely followed the principles laid down by the organized, recognized medical societies representing the whole profession, which were sponsoring these plans, which were rendering an untold service to our public by staving off political medicine, and which were assuring the public that medical service under privately sponsored activity could be rendered. There have always been larger or smaller groups who have not co-operated. Fortunately a sufficient number did conform to make the programs acceptable.

Essentially, the Blue Shield units almost completely covering the nation were able to carry on, all of them giving services under different regulations and in different amounts.

The demands of the public have been constantly increasing and within the last two or three years it has become evident that the public demanded a much more comprehensive basis of protection. The Michigan State Medical Society and Michigan Medical Service have completely modernized the Michigan concept and are now able to offer to group subscribers throughout the state just about any amount of coverage which they desire. An attempt has been made to set up a relative value fee schedule which is as all inclusive and as applicable as is possible. The contract is about ready to be placed on sale and to its subscribers it carries the guarantee expressed by the House of Delegates that our members will conform to the specifications, give the service, and accept the fee when the subscriber is within the prescribed income limit.

This schedule of fees has been established in an attempt to equalize all values and pay each group adequately and fairly. These schedules are the result of many years of study in many areas of the country. They are based upon the California Relative Value Fee Schedule and upon the Michigan studies of a hard working committee which has brought that schedule up to the Michigan requirements.

Eighteen years ago, when Michigan started the Blue Shield movement, the Commissioner of Insurance would only issue a permit when the society demonstrated to him that a sufficient number of our membership would cooperate to assure that the public would have no trouble in receiving the promised attention. Eighty-two per cent of participation at that time was accepted and approval granted. It is hoped that the new program which we are now establishing will receive at least that much participation. If that be true, the principles established by the House of Delegates in September, 1957, will be carried out.

In the past, there has been no distinction, either publicly or privately, between the participating and the non-participating doctors. Each has been paid the scheduled fee directly. The participating doctors, through their guaranteed service have made our program possible. The non-participating ones have accepted our fees as an indemnity, 100 per cent collected automatically. Under the new program, there will be a distinction, payments to non-participating doctors will be made through the patient, the same as any indemnity company, but assignments to the doctor will be recognized.

The success and continuation of the whole concept of voluntary non-profit, pre-payment medical service, as exemplified by the Blue Shield program, depends in ever-increasing measure on the unanimity with which the promises are fulfilled. The eyes of the nation are upon Michigan. The period of trial is here. Will the verdict be "Well done?"

TAX DEDUCTIBLE CONTRIBUTIONS

American Medical Education Foundation

There are several worthwhile contributions which our members could keep in mind or could pass on to their enquiring patients. We have been urged repeatedly for many years to contribute regularly to our alma mater or to medical education through the American Medical Association's Medical Education Foundation. Every physician owes a very great debt of gratitude to his medical school. None of them has ever contributed in fees and dues anywhere near the cost of his education. Those who can afford to are urged to remedy this defect with yearly contributions to help keep medical education as free from political domination as possible. Those with limited means can always spare a small amount. It was estimated a few years ago that our medical schools need about $10 million more than their present income in order to insure their proper efficiency as teaching centers. An average of $25 per medical member would go a long way toward relieving this stress.

Michigan Foundation for Health Education

When this Foundation was established one of its express purposes was to attempt to stimulate young medical students to locate in the more sparsely settled areas with a population of 5,000 or less. The Foundation has a rotating fund being used and is also sponsoring a number of other health education programs. The Foundation has made no concerted drive to raise more money recently but is always receptive. Wm. LeFevre, M.D., Councillor of the Michigan State Medical Society from the Muskegon district, has suggested that our members adopt a policy of making a contribution to the Foundation or to any other fund in which they are interested, as a birthday present. Send the check out on your birthday to The Michigan Foundation for Health and Medical Education, Inc., 606 Townsend Street, Lansing.

Cancer

The American Cancer Society, Michigan Division, for many years has raised money for numerous purposes. It has supported research on the control and cure of cancer. It has been the wish expressed by many people, in the case of a loved one dying from cancer, that in lieu of flowers, a donation be made to the cancer fund. This is especially appropriate. Just a hint from the doctor to the afflicted family will frequently result in a surprisingly large amount to this good cause, and a feeling of gratitude from the bereaved family. These donations are best made to the local Cancer Society, or may be sent to the American Cancer Society, Michigan Division, 1205 East Saginaw Street, Lansing 6.

Michigan Heart Association

This is another lay organization interested in the health of our community. It raises money through donations and is a member of the United Fund or the Red Feather program in various areas. It has helped the Michigan State Medical Society with rheumatism programs and centers. It has co-operated with us for several years in the January number of our JOURNAL. This is another opportunity for our well-disposed members to join, to contribute, to remember on their birthdays, and to remind their patients with the same suggestions in the case of deaths from heart disease. Flowers in such cases are always acceptable, but instead or in addition, an appropriate memorial to the Heart Association is very satisfying and many of our families will thank us for having made the suggestion. Michigan office is in the Doctors Building, 3919 John R. Street, Detroit 1.

Beaumont Memorial

The Beaumont Memorial Foundation, established and incorporated through the efforts of the Michigan State Medical Society Beaumont Memorial Committees during the last year, held its first annual meeting in Detroit, January 30, 1958. The Michigan State Medical Society had a more or less active committee on Beaumont for a great many years, and about ten years ago, the "Early House" was acquired. Within the last four or five years, a very active committee accomplished the restoration and reconstruction of the building in its original form, secured some period furniture, some relics, some applicable books and under final agreement, turned the building over to the Mackinac Island Commission. There are, however, many other things to be done and certain upkeep and expenses to be met. To continue the interest of the medical profession in this very outstanding monument to medical progress and to assure further accomplishments, the Society organized the Beaumont Memorial Foundation, which it invites all of our members to join at an expense of $5 per year, or $100 for a life membership. This project deserves our continuing support.

LYMPHOSARCOMA OF THE GASTROINTESTINAL TRACT

(Continued from Page 558)

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122 Grant St.
Niles, Michigan

Prepaid Medical Care Plans Committee

(A Committee of the Wayne County Medical Society)

Meeting of December 13, 1957

Present.—G. Thomas McKean, M.D., Acting Chairman; Charles Anderson, M.D., T. A. Boutrous, M.D., R. C. Buerki, M.D., Sidney Chapin, M.D., Roger DeBusk, M.D., E. H. Fenton, M.D., Rosser Mainwaring, M.D., Ralph Pino, M.D., A. Z. Rogers, M.D., Arthur Schiller, M.D., and Charles Stevens, M.D. Also present: L. J. Bailey, M.D., Clarence Owen, M.D., F. P. Rhoades, M.D., F. D. Mott, M.D., and Lynn Rosenfeld, M.D.

Purpose of Meeting.—Dr. McKean reported that the purpose of the meeting was to discuss the Community Health Association program with the Medical Director, Dr. Mott, and his assistant, Dr. Rosenfeld. He asked Dr. Mott to outline the plans of the C.H.A.

Community Program.—Dr. Mott explained that he had only been in Detroit a few months and had spent a great deal of his time getting acquainted with the community in order that he would know the medical resources. Dr. Mott emphasized that the objective of the Board of Directors of the C.H.A. is to develop a community program integrated as far as practical and feasible with the medical profession and the local hospitals. He pointed out that the Board does not want to divide the profession or set up splinter groups. For example. the Board does not look with favor on health programs developed by union locals.

Dr. Mott felt that the C.H.A. program could be developed as a part of the medical community and pointed out that both have the same objective —to enable people to get broad and good benefits on a prepaid basis. The main difference in opinion comes in approach, but Dr. Mott hoped that these differences could be minimized so that they could work together.

Also, he emphasized that it is a community program from the standpoint of the patients. The Board does not want it confined to labor but is interested in developing a plan that will be available to any individual. He admitted that the original impetus for the program came from the union and some of the financial support. However, he explained that the C.H.A. has also borrowed money from some of the foundations and plans on repaying all its loans including those from the union. He advised that the Board of Directors represents prominent people in the community and that it will be expanded to include more physicians. He did not think that the present Board would be interested in a union plan only.

Principles.—Dr. Mott outlined some of the principles laid down by the Board of Directors—prepayment, comprehensive service, group practice, free choice, medical direction and leadership, and, wherever possible, utilization of existing community hospitals.

Free Choice.—There was a long discussion about the question of free choice. Attention was called to the standards established by the State House of Delegates last September, one of which is free choice of physician. Dr. Mott stated that the Board of Directors is definitely committed to group practice. Medical service will be provided through organized group practice units. There will be a few exceptions for certain specialties. He emphasized that group practice is increasing and that the advantage of this type of practice is becoming increasingly obvious to physicians. In his opinion, the question of free choice of physician under such type of practice is merely a point-of-view; the group practice method does provide free choice. An individual will have free choice whether he wishes to come into the plan or not, and he is free to leave at any time. Physicians are free to decide whether they wish to participate in the plan. Furthermore, each family will be assigned a family physician from within the unit. He stated that group practice is a good mechanism for elevating standards of medical care and that the Board is firm on this method of practice.

Dr. Bailey questioned it from an ethical standpoint—would not the union steward have a tendency to influence the employes to utilize C.H.A. and if pressure were used, it could be interpreted as solicitation. Also, if the participating physicians are permitted to have private patients, the element of solicitation can enter there too.

Dr. Mott explained that the plan followed in Permante and H.I.P. would probably be adhered to here. There, representatives from the various plans such as Blue Cross or C.H.A. appear before a meeting of the employes and explain the advantages of each plan. The employe is then free to select which plan he prefers.

Quality.—Dr. Chapin raised the question as to whether there was a need for developing a new plan in Wayne County. He also emphasized that in constantly stressing quality of medical care, the unions were implying that the present medical care is inadequate, which he seriously doubted. Dr. Mott advised that the Board had emphasized quality of medical care because it was the pattern of their thinking but without any implication

against the present care. He pointed out that, at the time C.H.A. was organized, there had been concern among the people for more comprehensive care and for service contracts, for the extra charges had been a cause of irritation among union members. Also, employes had seen what was available in other parts of the country and wondered if the same could not be provided for them. He emphasized that C.H.A. is interested in preventive medicine, rehabilitation, and health education. In his opinion, for good preventive medicine, the earliest possible detection is important and, therefore, there should not be any barriers such as deductibles or co-insurance. He pointed out that, even with the increase of prepayment, the average person intends to get better medical care. A three-year study on the H.I.P. patients has shown a definite improvement in perinatal records: Perinatal mortality was approximately 31 per cent lower for whites; 37 per cent lower for negros. He felt this had been accomplished because standards had been set, such as the requirement that a baby must be under the supervision of a pediatrician for three years.

Costs.—In answer to questions, Dr. Mott explained that he did not know what the exact costs would be but that it was planned to distribute them equally—50 per cent to employers, 50 per cent to employes and that total care would not include mental health and T.B. Based on the costs of other plans, Dr. Rosenfeld explained that the rates for H.I.P. for a family were $160.00; Permante $180.00. He agreed that these costs are higher than Blue Cross but the question is—Do people want this added coverage enough to pay for it? In his opinion, they would. Dr. Rhoades pointed out that if these costs are made a part of the annual wage contract, in the future, industry may pay 100 per cent. How can the average person then afford these rates? Dr. Mott admitted that he could not answer this question but stressed that the unions consider these benefits as wages.

Control.—In answer to questions from Dr. Schiller as to possibilities of control by unions or by government, Dr. Mott advised that in other areas such as in the Kentucky coal fields where he had helped develop the United Mine Workers program, and also in Saskatchewan, Canada, doctors at first had expressed similar fears but that these fears had proven unfounded. Physicians in both areas are pleased with the plans now. In regard to safeguards, he stressed that the medical standards will be set by physicians in hospitals and by a medical advisory committee to C.H.A.

Availability of Physicians.—Dr. Pino stressed that the C.H.A. cannot accomplish its broad objectives without sufficient physicians and questioned whether there would be enough to carry out the annual program such as the annual physical examination. Dr. Mott explained that one of the purposes of the program is to try to use the medical resources most efficiently and emphasized that the C.H.A. is a research program. He pointed out that medicine is constantly changing and that the profession must face its responsibilities. He stated that a recent study on utilization of beds in hospitals shows that under comprehensive programs there is a substantial difference in the number of hospital days—5.8 days under a comprehensive program as compared to 7.5 under Blue Cross. He advised that final interpretations are obscure but that it is possible that, by carrying out the work of medicine one step further and bringing about more co-operation, the medical resources may be used more fully.

Dr. Pino emphasized that the group should work together and that if an experiment was wanted, the union should have come to the medical profession, which has had this problem under study for thirty years and has valuable experience and information.

In answer to a question as to what effect such group plans as C.H.A. would have in the number of medical students, Dr. Mott and Dr. Rosenfeld admitted they did not know, but emphasized that doctors do reasonably well in these groups and have professional help.

Blue Cross.—When asked whether C.H.A. plans to set up its own insurance or use existing plans, Dr. Mott stated he didn't "think in insurance," and that he couldn't give a positive answer to where Blue Cross would fit in. However, he said he did not want to deal with hospitals through a middle man and, therefore, "We shall probably pay hospital bills from C.H.A. rather than Blue Cross."

The meeting adjourned at 2:00 p.m.

THE COMMUNITY HEALTH ASSOCIATION
Its Implications and Probable Effects

That the Community Health Association is no longer a theoretical threat to medical practice in the State of Michigan is evidenced by the presence at a recent meeting of the Prepaid Medical Care Plans Committee of Dr. F. D. Mott and Dr. Lynn Rosenfeld who represent the executive board of the Community Health Association and will direct its activities. Dr. Rosenfeld seems to be somewhat of a sociologist and with Dr. Mott helped establish the mine workers insurance plan and put it into

operation. Up to recently the Community Health Association seemed to be a nebulous thing which might spring into being on a maybe, if, or and basis and would not constitute a present threat, or if it did constitute a threat that its relationship with medicine would be such that they would operate with Blue Cross and Blue Shield or with any type of insurance which we in private practice deal with.

This is not so, even through Dr. Mott emphasized that the objective of the Board of Directors of the Community Health Association is to develop a *community* medical program integrated as far as practical and feasible with the medical profession in the local hospitals. He pointed out that the board does not want to divide the profession or set up splinter groups. He felt that the Community Health Association Program could be developed as a part of the medical community and pointed out that both had the same objective which was to enable people to get broad benefits on a pre-paid basis without co-insurance or deductibles.

He also emphasized that this was a community and not a union program for the benefit of the patient; that it would not be limited to labor, but would be available to any individual who desires it. He also admitted more or less as an aside, that the original impetus for the program came from the unions who furnished more or less the financial support. The Board of Directors represents prominent people in the community and the basic principles laid down were prepaid, comprehensive service, group practice, free choice, medical direction and leadership, and wherever possible utilization of existing community hospitals.

There is nothing in the above statement that is not laudible, that is not in the interest of the public, and that is not in the interest of good medicine.

Realistically I am deeply concerned about the formation and operation of such a plan here in Detroit and Wayne County. This plan in essence proposes group practice on a closed panel plan basis, and while it is stated that there is to be free choice of physicians, this free choice obviously has to be limited to members of the plan which naturally will include salaried physicians working for the plan which is covered by a new type of insurance.

It is a well known fact that closed panels can operate more cheaply than can the private physician and as Dr. Mott expressed it, free choice of physician under group practice is merely a point of view. Of course as he also stated, an individual would be free to leave the plan at any time.

Since it is the intent of the plan to have industry pay for half of the operative cost and the private individual the other half, it is common sense to suppose that an individual will think twice before leaving the plan. Again since each family would be assigned a family physician from within the unit it also means that this plan would be in direct competition with all of the doctors in the State of Michigan.

Dr. Mott stated that the plan followed the Permante Plan in California and H.I.P. in New York, would probably adhere to their principles, and since Dr. Mott comes from the mine workers group, in all probability some elements of their plan would be added to the C.H.A. Program.

Gentlemen, the introduction and operation of a plan of this type in Wayne County, means a type of competition that we have never before encountered in competitive private practice and because of its inherent features as described above, it presents a type of competition that we believe is not in the best interests of either the patient or the doctor.

It will present a definite problem to the Blue Cross and Blue Shield, for without industrial co-operation these plans cannot exist. It will represent a problem for the hospitals which according to their charters cannot refuse co-operation. It means the opening and operation of closed panel clinic groups which can be operated on the various corners and sections of our county. It represents the bargaining power of labor and industry with which the doctor cannot compete.

Couple this with the obvious intent to secure full medical insurance coverage, regardless of cost and who pays for it, as long as it is not the patient. We then have what represents this goal of increasing effort as evidenced by the Permante Plan in California, the H.I.P. in New York, the mine workers plan and the plans of various groups organized for the definite purpose of getting a low cost care, usually at the expense of the physician.

It should also be pointed out that these plans operate extensively as a community project, can eventually have such political repercussions that it may place medicine in the position of eventually facing federal control. If these plans encounter a depression that leaves them insolvent they undoubtedly will apply to the Federal Government for relief and that means State and Federal medicine.

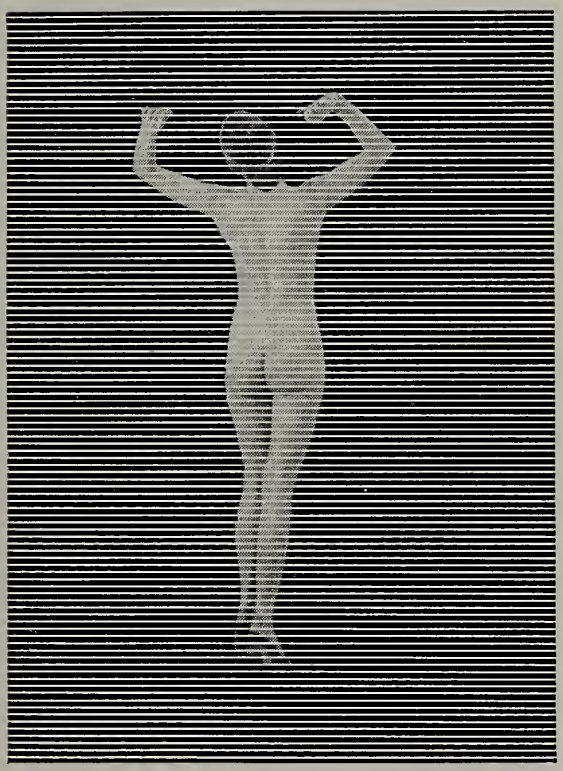
A. E. Schiller, M.D.

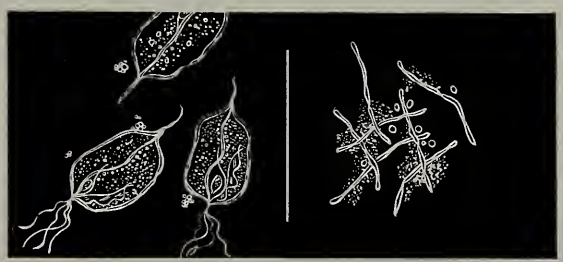
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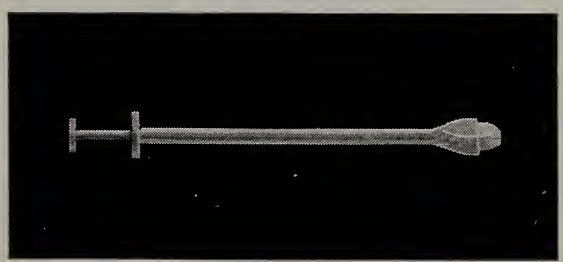
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Vaginal discharge is one of the most common and most troublesome complaints met in practice. Trichomoniasis and monilial vaginitis, by far the most common causes of leukorrhea, are often the most difficult to control. Unless the normal acid secretions are restored and the protective Döderlein bacilli return, the infection usually persists.

Through the direct chemotherapeutic action of its Diodoquin® (diiodohydroxyquin, U.S.P.) content, Floraquin effectively eliminates both trichomonal and monilial infections. Floraquin also contains boric acid and dextrose to restore the physiologic acid pH and provide nutriment which favors regrowth of the normal flora.

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The following therapeutic procedure is suggested: One or two tablets are inserted by the patient each night and each morning; treatment is continued for four to eight weeks.

Intravaginal Applicator for Improved Treatment of Vaginitis

This smooth, unbreakable, plastic device is designed for simplified vaginal insertion of Floraquin tablets by the patient. It places tablets in the fornices and thus assures coating of the entire vaginal mucosa as the tablets disintegrate.

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SEARLE

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

TPCF TESTING

In all biologic tests, there is a possibility of error. Serologic tests for syphilis are no exception. It is well known that a reasonably significant percentage of positive reactors to the serologic test for syphilis (STS) do not have syphilis. These are the biologic false positive reactors.

The biologic false positive phenomenon becomes a matter of great practical concern to persons who wish to be married in Michigan, to expectant mothers, and to physicians who must make an accurate diagnosis and act accordingly. The Michigan premarital examination law prohibits persons who have a positive or doubtful serologic test for syphilis (STS) from getting married in the state unless they obtain approval of a special medical dispensation from the State Health Commissioner. The prenatal examination law requires all expectant mothers to have a serologic test for syphilis when they first visit their physician. A possible biologic false positive reaction in these cases is of considerable importance.

In an effort to assist in the administration of both the premarital and prenatal examination laws of Michigan and to aid the physician who has special diagnostic problems, the Michigan Department of Health through its Division of Laboratories is prepared to perform Treponema Pallidum Complement Fixation (TPCF) tests. This test has an antigen prepared from virulent *T. pallida* by removing the lipid fractions and then extracting the antigenic material. The resulting antigen is then used in a regular complement fixation test. It is probably the best and most practical answer at the present time to the problem of biologic false positives.

Performance of the TPCF tests by the Michigan Department of Health will be governed by the following priorities:

1. Those cases in which a special medical dispensation for marriage is requested on the basis of a probable biologic false positive reaction.
2. Problem blood tests taken in pregnancy in which the physician believes there is a biologic false positive reaction, or for which immediate treatment would need to be given if the patient were actually infected with syphilis.
3. Special problem cases submitted by physicians or health departments, after being screened by the Venereal Disease Control Officer.

The procedure for the handling of specimens and reports is as follows:

1. The Division of Laboratories will continue to prepare and distribute on request special containers for submitting blood specimens. These containers will include the United States Public Health Service Venereal Disease History Form (designed for TPI testing) which will be used for TPCF reporting until a new Michigan Department of Health form can be prepared for this purpose.

2. All history forms received by the Division of Laboratories will be reviewed by the Venereal Disease Control Officer and either approved or rejected for testing of the specimen.

3. Specimens rejected for TPCF testing will be disposed of as directed by the Venereal Disease Control Officer.

4. Those specimens approved for testing will be entered for STS and for TPCF testing and referred to the Serology Laboratory. The Laboratory will divide the specimens in two portions. One portion will be held under refrigeration for possible reference to the Venereal Disease Laboratory, Communicable Disease Center, USPHS. A standard STS test will be performed on the second portion. If this is negative and the recorded results of previous tests are doubtful, no further tests will be performed. If the test is positive, a TPCF test will be performed. The results of the TPCF test will be recorded as reactive, weakly reactive, non-reactive, anti-complementary, or unsatisfactory for testing. Tests will be performed several times weekly. The minimum number of specimens for testing will be ten.

5. The reports of the STS test and the TPCF test will be correlated and sent to the physician of origin, the Venereal Disease Control Officer, and the local full-time health officer.

DEPARTMENT POLICY ON X-RAY RADIATION

In connection with the possible existence of a hazard arising from the use of x-ray radiation, the Michigan Department of Health has established the following policy in the operation of its own 70 mm. chest x-ray photofluorographic equipment and recommends it for consideration by all other agencies or groups engaged in chest x-ray surveying. The following points are contained in the policy:

A. Protective Measures
 1. Proper coning of the x-ray tube;
 2. The equivalent of at least two and one-half millimeters of aluminum filtration;
 3. Exclusion of all persons except the examinee and the x-ray technician from the immediate vicinity of the x-ray equipment;
 4. Use of proper voltages for energizing x-ray equipment.

B. Selection of Survey Groups
 1. Because of the very low incidence of tuberculosis in the younger age groups, the minimum

(Continued on Page 619)

respiratory infections
gastrointestinal infections
genitourinary infections
miscellaneous infections

immediate therapeutic response

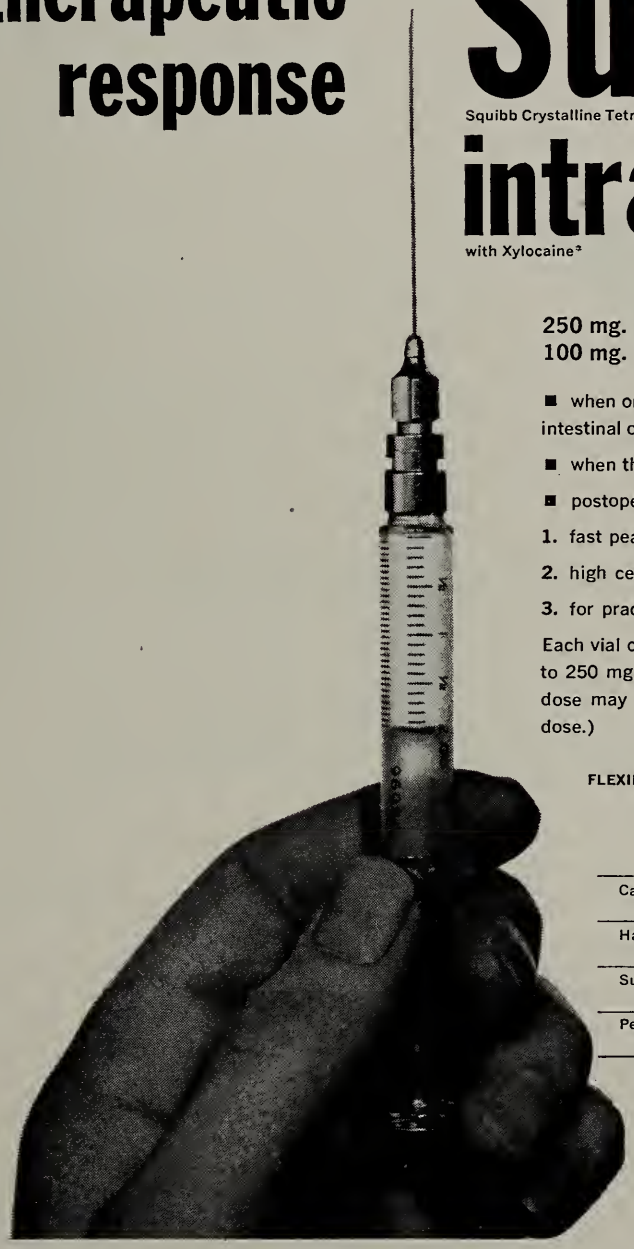
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Sumycin

Squibb Crystalline Tetracycline Phosphate Complex

intramuscular

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250 mg. per 1 dose vial
100 mg. per 1 dose vial

- when oral therapy is contraindicated (vomiting, dysphagia, intestinal obstruction, gastrointestinal disorders)
- when the patient is comatose or in shock
- postoperatively

1. fast peak blood and tissue concentrations
2. high cerebrospinal levels
3. for practical purposes, Sumycin is sodium-free

Each vial contains tetracycline phosphate complex equivalent to 250 mg., or 100 mg., of tetracycline HCl. (Note: 250 mg. dose may produce more local discomfort than the 100 mg. dose.)

FLEXIBLE DOSAGE FORMS FOR CONTINUING ORAL THERAPY

	Tetracycline phosphate complex equiv. tetracycline HCl (mg.)	Packaging
Capsules (per capsule)	250	Bottles of 16 and 100
Half Strength Capsules (per capsule)	125	Bottles of 16 and 100
Suspension (per 5 cc. teaspoonful)	125	60 cc. bottles
Pediatric Drops (per cc.—20 drops)	100	10 cc. bottles with dropper

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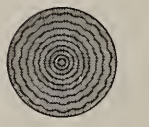
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PROVEN SAFE...EFFECTIVE • IN PREGNANCY • IN CHILDHOOD • IN MIDDLE-AGED PATIENTS • IN ELDERLY PATIENTS • **THROUGH MORE THAN 25 YEARS OF USE**

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0.66 Gm. non-bitter Ext. Cascara per tablespoonful.
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for more resistant constipation
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Legal Opinion

LIABILITY OF PHYSICIANS RE: BLOOD TRANSFUSIONS

Dear Mr. Burns:

I have given consideration to the questions posed by Dr. — — with respect to the liability of physicians and surgeons arising out of the medical or surgical treatment of patients whose religious beliefs contra-indicate transfusions of whole blood or blood substitutes. The inquiry suggests three types of situation in which problems arise as follows:

(1) The emergency situation in which a patient arrives at the hospital unconscious and unaccompanied by family or friends and emergency treatment, including transfusion, is indicated.

(2) The similar emergency situation in which a patient arrives at the hospital unconscious but is accompanied by family or friends of the same sect who reject the doctor's advice and refuse the treatment.

(3) The situation in which a conscious patient refuses recommended transfusions before surgery but does accept surgical treatment in the course of which he goes into shock and transfusion is thereby reindicated.

The foregoing situations are, by no means, all that might arise in this general area but are, perhaps, sufficient to illustrate the application of the general principles involved.

Basically, the patient has the right at all time to accept or reject recommended medical or surgical treatment and procedures. The right of a doctor to administer treatment rests upon the patient's consent. A patient may consent or refuse to consent to treatment or to specific procedures for any reason which appeals to him or for no reason. Whether his consent is withheld because of religious beliefs or otherwise is, therefore, of relatively little importance since it is forbidden to the doctor to administer any treatment to a competent patient who specifically rejects such treatment or fails to consent thereto either expressly or impliedly.

Applying this general principle to the situations submitted, I am of the opinion:

(1) That where an unconscious patient, unaccompanied by family or friends, is admitted under such emergency conditions as to require the doctor to use his best judgment as to the type of treatment to be administered, and that judgment indicates the necessity of blood transfusions, he may properly administer them. The rationale of this conclusion is that under such circumstances the patient's consent thereto will be implied since it cannot reasonably be presumed that, if conscious, any patient would refuse or reject proper treatment and it would be contrary to humanitarian principles to refuse proper treatment merely because the patient is not in condition to give express consent thereto. It must be kept in mind, however, that in such circumstances drastic, unusual or dangerous treatment is justified only by real emergency and that there must always be direct relationship between the degree of emergency and the kind and degree of treatment that is given under the theory of implied consent.

(2) Where, in a similar situation, the patient is accompanied by family or friends who know of his religious beliefs and communicate them to the doctor and, in behalf of the patient forbid such treatment, more perplexing problems arise. If the accompanying spokesman is a parent, spouse or legal representative, I believe, generally, the refusal to consent is that of



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Sulfacetamide 100 mg.

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+ Potassium citrate 200 mg.

SUPPLIED: Bottles of 100 tablets.

Superior, broad-spectrum antisepsis. Highly soluble, rapidly absorbed, maintains high g.u. concentrations. Effective in low dosage with minimal risk of crystalluria, sensitization, resistance or superinfection.

Prompt antispasmodic and anti-irritant relief of pain and urgency.

Diuresis and alkalization to enhance sulfonamide solubility and safety.

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- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

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the patient and should be so regarded by the doctor. If the spokesman is not parent, spouse or legal representative, his or her consent to or rejection of treatment is not necessarily the act of the patient and is not, in itself, binding on either the doctor or the patient. However, the information so conveyed to the doctor may well be regarded as sufficient to negate implied consent on the part of the patient and cannot, therefore, be safely disregarded. In short, where the doctor knows that the patient's religious beliefs are such that he would not consent to transfusions were he conscious and able to give or withhold such consent, it would seem to follow that his consent cannot be implied or presumed and, therefore, with the possible exception of the most dire emergency, such treatment should not be given.

As to whether, in such circumstances, even the most grave emergency would justify disregard of the patient's known beliefs is a question to which no positive answer can be given. I have been unable to find any definite precedent among the adjudicated cases and can suggest only that such a situation be regarded as presenting one of those problems, not infrequently encountered, in which the doctor must weigh and balance the possible consequences involved and assume or decline the risk as his conscience and best judgment dictates.

(3) Where a conscious adult patient refuses recommended transfusions before surgery but undergoes surgical treatment in the course of which transfusions are reindicated, difficult problems can arise. I am of the opinion, however, that such problems can be kept to a minimum if the doctor keeps in mind at all times the basic concept of consent. For example, where the doctor knows in advance of surgery that the patient has rejected transfusions and does not and will not consent thereto, it cannot reasonably be implied or presumed that he consents thereto while anesthetized during surgery. In such a case the doctor has undertaken to perform the surgery with the knowledge of the patient's refusal to consent to certain treatment or procedures. If there is a foreseeable possibility that a situation will arise during surgery in which a transfusion will be indicated, the patient can and should be advised in advance of that possibility. If, upon being so advised, he continues to refuse to accept such treatment or refuses to consent that the doctor may exercise his judgment as to procedures during surgery, and advises the doctor that under no circumstances will he willingly undergo transfusion, the doctor is limited to the choice of proceeding under such limitations or of declining to perform the surgery.

While I regret that I am unable to lay down a specific set of rules that will govern in all circumstances, I trust that the foregoing will be helpful as a general guide.

Very truly yours,

LESTER P. DODD,
Legal Counsel

January 16, 1958

RE: HOSPITAL AUDIT OF CHARTS

Dear Mr. Burns:

I have received and given consideration to the inquiry presented by M.D., Medical Director of.....Hospital, by his letter of December 16, 1957.

The question posed in that letter is phrased as follows:

> "The question has been raised by the Hospital Staff men as to whether or not it is necessary to secure the written permission of the patient before his case can be referred to the Audit Committee for review."

I am assuming that the Audit Committee referred to is a committee comprised of selected members of the

Say you saw it in the Journal of the Michigan State Medical Society

Hospital Staff under authority of the by-laws or regulations governing the Hospital.

The inquiry raises questions pertaining both to physicians and surgeons and to hospital authorities. Presumably, the question as to whether the patient's consent is necessary or advisable arises from doubt as to whether review and examination of the records pertaining to his case will, without his consent, (a) constitute an invasion of the patient's right to privacy, or, (b) constitute an improper disclosure of confidential or privileged matters on the part of his physician. Both rights are substantial and are rather jealously guarded by the law.

Generally, any disclosure of the patient's medical records not authorized by the patient, either expressly or by necessary implication, is violative of his rights. The difficult question is whether, in respect to a medical audit review, his consent may be implied. A plausible argument may be made that in accepting admission to the hospital and in consenting to operative or medical procedures, he has impliedly consented that they be carried out in accordance with the regulations and practices in effect in the hospital, including audit procedures. The principal weakness in this argument is that the patient is not commonly aware of the existence of such regulations and procedures and, consequently, cannot be presumed to have consented thereto.

Basically, of course, the review of the patient's records may be said to be in his interest and for his benefit since its primary purpose is to maintain high standards of care in the hospital. Since this is so, I think it unlikely that any substantial number of patient complaints are to be expected. I feel, nevertheless, that there may be at least technical violation of the patient's rights and that good practice would indicate the desirability of obtaining patient consent routinely. I think it would be undesirable to unduly emphasize audit procedures to the patient in obtaining his consent as to do so might convey to the patient incorrect ideas as to the use and purpose of such procedures. I feel, however, that to embody such consent in the form signed by the patient upon his admission to the hospital or in his consent to operative procedures, or both, is desirable. It seems to me that this could be done simply, routinely, and unobtrusively.

Very truly yours,

LESTER P. DODD,
Legal Counsel

February 24, 1958

MALIGNANT MELANOMA

(Continued from Page 566)

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Letters to the Editor

Dear Doctor Haughey:

You were kind enough to publish a biographical article about me in March 1956 because I was President of the American Association for Thoracic Surgery, that year. When the article was published I wrote to you saying that I was afraid no one would understand why it had been written. Since then it has become obvious that most of the doctors who read the article thought that I had retired. I have been hearing from all parts of the state that I have retired. The result has been that those doctors have stopped sending me patients. This last year my income from practice was one third of what it was before the article was published.

I, therefore, am writing to you to ask that you insert some little notice to the effect that the article was written only because of the policy you then had, to publish items about men from Michigan who had been elected to the presidency of a national organization. It was indeed a nice gesture, but it has certainly backfired for me. If you can publish some short note about it, and that *I have not retired,* I shall greatly appreciate it.

Sincerely yours,

RICHARD H. MEADE

Grand Rapids, Michigan
March 5, 1958

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BUREAUCRACY AT WORK

Dear Doctor Haughey:

Salk and "Flu" vaccines have captured the headlines, but occasionally a prospective traveller to South America inquires about Yellow Fever immunization.

Having had such a request and being unable to obtain any vaccine locally, I seized the opportunity to investigate the matter of Yellow Fever immunization during a wait of several hours between trains while in Washington, D. C.

Would the U. S. Public Health Service be able to help me? I tried to look up the number in the ten pound Washington telephone book. There were no U. S. Government numbers listed anywhere in the yellow pages. Odd, I thought, but try the white pages. Sure enough, there were eight pages of U. S. Government numbers in the white pages, listed by departments.

Remembering from some distant experience that the Public Health Service is a part of the Department of Health, Education and Welfare, I tried H, U. S. Government, and found the Public Health Service between Kandall School, Primary Department and Biologics Preparation Laboratory. The number is EX-cutive 3-6300.

On calling this number and stating my business, I was informed by a pleasant female voice that Miss Barnes, JU-niper 6074 would give me the information I wished.

So, hanging up, and dropping another dime, I called JU-niper 6074. After what seemed like several minutes of ringing another very pleasant female voice answered and said "the number you have called has been discontinued. Please consult information to obtain the correct number. Thank you. This is a mechanically recorded voice speaking." Obviously good only for a one-way conversation, I thought.

Calling EX-cutive 6300 again, for another dime, the first pleasant voice again answered. I told her about JU-niper 6074 being discontinued. As if it happened every day, she advised me to hold on and she would locate Miss Barnes. If this was another machine talking to me, I couldn't be sure.

About fifteen minutes and forty-five cents worth later, the same pleasant voice announced, somewhat mechanically, I thought, that Miss Barnes had been located and she would put her on my wire. It sounded a little too human for a record player, I thought.

Miss Barnes wanted to be very helpful. She began her conversation as if she knew exactly what she wanted to say and exactly where she wanted to stop, as if she were reading it all from an open book. Yellow Fever immunization could be obtained on Tuesdays and Fridays at 2:45 p.m. at the Public Health Service Out-Patient Clinic, 4th and C streets S.W., Washington, D. C.

For residents of Michigan, she continued, Yellow Fever immunization is available at the Public Health Service Center at Windmill Point, Detroit, at 10 a.m. on Wednesday only, except when Wednesday is a national holiday, in which case it would become available at 10 a.m. on the following Wednesday. Yellow Fever immunization would also be available at Henry Ford Hospital, Detroit, at any time by appointment, and at the Perkins Clinical Laboratory, 970 Fisher Building, Detroit, Mondays, Tuesdays, Thursdays and Fridays from 9 a.m. to 5 p.m. and also on Saturday morning from 9 a.m. until noon. She added, somewhat snootily, that there would be a charge at the two latter places. I commented that the six-day week service might be worth it, especially since Windmill Point is out where

Say you saw it in the Journal of the Michigan State Medical Society

the Detroit River leaves Lake St. Clair, a considerable distance from downtown Detroit, in terms of either miles, times or car fare. She didn't seem to hear me. Another record, I thought.

A question requiring an answer would resolve this doubt. I inquired as to the possibility of a physician in private practice obtaining a supply of vaccine for immunization of travellers to infected areas. Again, as if she had answered the same query a thousand times she replied, by agreement with the World Health Organization, only institutions may become Yellow Fever Immunization Centers, and the vaccine is not distributed except to a designated center. Institutions wishing to qualify as Yellow Fever Immunization Centers may file an application with the U. S. Public Health Service, Division of Foreign Quarantine, Washington 25, D. C. It is not possible to designate a private physician as an Immunization Center, she repeated, but added, somewhat archly, I thought, for a recorded voice, if it was one, that any physician may buy the vaccine from a drug store and immunize anyone he chooses, but, if he did so he could not issue a valid certificate of immunization because he has not been approved as an Immunization Center by the World Health Organization.

I knew then it was the voice of bureaucracy speaking, and not a record.

LOUIS LEFEVRE, M.D.

Muskegon, Michigan

Dear Doctor Haughey:

The February number of the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY has just arrived and, as usual, I am admiring it and enjoying it. I am very flattered that I have been honored by being mentioned not only once but on two occasions.

On Page 282 there is a typographical error that I would like to have corrected. The statement is made that "The International College of Surgery announced recently in Paris the election of Frederick A. Coller, M.D., as an honorary member of the society, et cetera."

This honor was conferred upon me by the International Society of Surgery which is a very old society, the membership of which is comprised of selected members from about 60 countries. If it is possible for you to make this correction in one of your following issues, I would appreciate it very much.

With all good wishes, I am,

Sincerely yours,

FREDERICK A. COLLER, M.D.

Ann Arbor, Michigan
February 27, 1958

DEPARTMENT POLICY ON X-RAY RADIATION

(Continued from Page 612)

age of examinees who will be accepted is established at eighteen years. Children under this age will be accepted if referred by the family physician on his prescription form;

2. Chest x-ray surveys are to be carried out in those population areas where morbidity and mortality figures, and the results of tuberculin testing programs, indicate a relatively high prevalence of tuberculosis.



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In Memoriam

JOHN R. RALYEA, M.D., forty-one, Detroit physician, died January 29, 1958, of a stroke in Finland. Doctor Ralyea was chief anesthesiologist at Highland Park General Hospital.

Doctor Ralyea was attending Turkin University, Finland, on a six-month Fulbright lectureship in anesthesiology.

Doctor Ralyea graduated from Eastern Michigan College and later from Wayne State University Medical School. He also was a graduate of the University of Chicago Clinic where he spent a year in residence followed by eight years in general practice in Paw Paw, Michigan.

A native of Buffalo, New York, Dr. Ralyea had been on the staff of Highland Park General Hospital since 1955 and had been appointed chief anesthesiologist in 1956.

With him in Finland were his wife, Imbi, an anesthetist, and their twelve-year-old son.

HENRY T. SETHNEY, M.D., seventy-five, Menominee physician and surgeon, died in his sleep January 18, 1958. After nearly fifty years of practice as a physician and surgeon, he retired in 1955.

A native of Norway, Michigan, on the Menominee Iron Range, Dr. Sethney was born in 1882, and graduated from Normandy High School. He attended the University of Michigan and transferred to the University of Illinois where he received his degree in medicine in 1905.

He interrupted his practice in 1917 to offer his professional services to the U. S. Army Medical Corps and was commissioned a lieutenant. At the end of the war he left the service with the rank of major. He was with the unit through two of the major battles of the War in France, the Meuse-Argonne and St. Mihiel, and in three major battles in Belgium.

Doctor Sethney donated his services for a quarter of a century to Menominee High School football teams. His old slouch hat and his medical case were as much a part of every Maroon football game as the field and fans.

He was a past president and held about every office in the Menominee County Medical Society. He was first president of the staff at St. Joseph-Lloyd Hospital. He was the first commander of the Menominee American Legion Post and served four terms as a member of the Menominee Board of Education; was president of the board in 1930 and again in 1933.

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HARRY L. STERN, M.D., fifty-nine, Detroit industrial physician, died January 25, 1958 in Henry Ford Hospital. He had served as industrial physician for the Ford Motor Company for sixteen years.

A native of Kansas City, Missouri, he held degrees from the University of Michigan and the Detroit College of Medicine and Surgery. Doctor Stern was a staff member of Grace Hospital, member of Wayne County Medical Society, the Michigan Industrial Medical Association and the American Academy of General Practice.

CLAYTON T. WILLISON, M.D., eighty-seven, Sault Ste. Marie physician and surgeon since 1896, died January 30, 1958.

Doctor Willison was honored as "Michigan's Foremost Family Physician" in 1951.

He started his Upper Peninsula medical practice in 1896 as a lumber camp physician and moved to Sault Ste. Marie a few years later.

Dr. Willison was born in Hickory Corners, Michigan, on June 14, 1870. He attended the University of Michigan Medical School and Chicago Homeopathic Medical School from which he graduated in 1891.

He was a charter member of the Fifty-Year Club of the Michigan State Medical Society, the American Medical Association and Chippewa County Medical Society. He was a life member of the IOOF, and a life member of the Knights of Pythias, and Bethel Lodge. He was an honorary member of the Rotary Club.

A CANCER REGISTRY PROGRAM

(Continued from Page 594)

would be threatened with these dangers, it is best to develop a series of local or county registries to provide the necessary services within the accessible range of the participating hospitals and to send to the state-wide registry only a minimum of basic materials for the compilation of state-wide cancer morbidity rates.

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MICHIGAN AUTHORS

Warren R. Moore, M.D., Detroit, is the author of an article entitled "Inguinal Endometriosis in Bilateral Hernia Sacs Associated with Extensive Pelvic Endometriosis," published in *Harper Hospital Bulletin,* November-December, 1957.

Nathan Levitt, M.D., John Simpson, M.D. and **Reuben Lopatin, M.D.,** Detroit, are the authors of an article entitled "Electrophoretic Studies of Pleural Effusions," published in *Harper Hospital Bulletin,* November-December, 1957.

Harold Henderson, M.D. and **Harold C. Mack, M.D.,** Detroit, are the authors of an article entitled "Program Highlights—1957 Meeting, American Association of Obstetricians and Gynecologists," published in *Harper Hospital Bulletin,* November-December, 1957.

Raymond Lafontaine, M.D., Detroit, is the author of an article entitled "Neurological Examination of the Newborn and Older Infant," published in the *Henry Ford Hospital Medical Bulletin,* September, 1957.

Grover C. Penberthy, M.D., Detroit, is the author of an article entitled "The Reflection of a Surgeon in the Progress of His Art," published in the *Henry Ford Hospital Medical Bulletin,* September, 1957.

W. J. Treanor, M.D., and **C. E. Rupe, M.D.,** Detroit, are the authors of an article entitled "Porphyria—An 'Enzyme Lesion' Review of Basic and Clinical Aspects," published in the *Henry Ford Hospital Medical Bulletin,* September, 1957.

Robert E. Birk, M.D., and **Edward L. Quinn, M.D.,** Detroit, are the authors of an article entitled "Anaphylactoid Reaction to Oral Penicillin G; Case Report," published in the *Henry Ford Hospital Medical Bulletin,* September, 1957.

William J. Fulton, M.D., Detroit, is the author of an article, the second in a series of four, entitled "Medical Department Layout and Design," published in *Industrial Medicine and Surgery,* February, 1958.

J. P. Gray, M.D., Detroit, is the author of an article entitled "The Medical Writer's Part in Keeping the Practicing Physician in Step with Modern Scientific Advances," presented at the 14th Annual Meeting, American Medical Writer's Association, St. Louis, September, 1957, and published in the *Mississippi Valley Medical Journal,* January, 1958.

Charles W. Sellers, M.D., Detroit, is the author of an article entitled "The Fallacy of Retirement," selected for presentation in the contest on non-medical writing conducted in connection with the 14th Annual Medical Writer's Association Meeting, St. Louis, September, 1958, and published in the *Mississippi Valley Medical Journal,* January, 1958.

J. P. Gray, M.D., Detroit, is the author of an article entitled "Report of Visiting Lecturer on Medical Writing, American Medical Writers' Association, during 1956-1957," presented at the 14th Annual Meeting, American Medical Writers' Association, St. Louis, September, 1957, and published in the *Mississippi Valley Medical Journal,* January, 1958.

George Moriarty, M.D., Aaron Farbman, M.D., Irving Kurtz, M.D., Warren Babcock, M.D., Juan Chiappe, M.D., and **Laurence Linkner, M.D.,** Detroit, are the authors of an article entitled "Gems and Stratagems I. 1957 Meeting, American College of Surgeons," published in *Harper Hospital Bulletin,* November-December, 1957.

Hermann Pinkus, M.D., Monroe, is the author of an article entitled "Anatomy of the Skin, 1955," published in *Dermatologica,* Vol. 114, No. 1 (1957).

Renato J. Staricco, M.D., and **Hermann Pinkus, M.D.,** Monroe, are the authors of an article entitled "Quantitative and Qualitative Data on the Pigment Cells of Adult Human Epidermis." presented at the Seventeenth Annual Meeting of The Society for Investigative Dermatology, Inc., Chicago, Illinois, June 9, 1956, and published in the *Journal of Investigative Dermatology,* January, 1957.

Murray G. Williams, M.D., and **Hermann Pinkus, M.D.,** Monroe, are the authors of an article entitled "Preliminary and Short Report Sulphates in Human Sweat," published in the *Journal of Investigative Dermatology,* April, 1957.

Hermann Pinkus, M.D., Monroe, with the co-operation of **Warren L. Macaulay, M.D., Herbert Z. Lund, M.D., James R. Delaney, M.D., Harold E. Anderson, M.D.,** and **Joseph M. Hitch, M.D.,** is the author of an article entitled "Alopecia Mucinosa," read before the 77th Annual Meeting of the American Dermatological Association, Inc., Belleair, Florida, April 13, 1957, and published in the AMA *Archives of Dermatology,* October, 1957.

Hermann Pinkus, M.D., Monroe, is the author of an article entitled "The Problem of Multicentricity in Skin Cancer," published in the *Bulletin of Wayne State University College of Medicine and Detroit Receiving Hospital,* July, 1957.

Peter J. Kropp, M.D., Detroit, is the author of an article entitled "Examination of the Epidermis by the Strip Method," published in the *Journal of Investigative Dermatology,* September, 1957.

Ernest H. Watson, M.D., Ann Arbor, is the author of an article entitled "The Physician and the Adoption of Children," published in the *Henry Ford Hospital Medical Bulletin,* December, 1957.

E. O. Jodar, M.D., Detroit, is the author of an article entitled "Neonatal Chicken Pox," published in the *Henry Ford Hospital Medical Bulletin,* December, 1957.

Harold F. Falls, M.D., Ann Arbor, is the author of an article entitled "First Annual Report of the National Medical Foundation for Eye Care to the Medical Profession," text of an address to an open meeting of members and friends of the National Medical Foundation for Eye Care, Palmer House, Chicago, October 15, 1957, and published in *Eye Digest,* January, 1958.

Lee Carrick, M.D., Detroit, is the author of an article entitled "Cutaneous Cryptococcosis," published in AMA *Archives of Dermatology,* December, 1957.

Earl G. M. Krieg, M.D., Detroit, is the author of an article entitled "Regional Enteritis Response to Treatment with Crude Liver Extract," published in the *American Journal of Gastroenterology,* October, 1957.

William D. Robinson, M.D., Ann Arbor, **John W. Sigler, M.D.,** Detroit, and **Emmerich von Haam, M.D.,** Ohio State University, are the authors of an article entitled "A Clinicopathological Conference Edited under the Auspices of the Ohio Society of Pathologists," William Sinclair, M.D., President, and published in the *Ohio State Medical Journal,* February, 1958.

Frank H. Bethell, M.D., Ann Arbor, is the author of an article entitled "Chemotherapy of the Leukemias and Lymphomas," presented at the Annual Session of the Arkansas Medical Society, April, 1957, and published in the *Journal of the Arkansas Medical Society,* January, 1958.

Thad H. Joos, M.D., Grosse Pointe Woods, is the author of an article entitled "The Home Management of the Poliomyelitis Respirator Patient," published in the *Henry Ford Hospital Medical Bulletin,* December, 1957.

E. E. Schumacher, Jr., M.D., Grand Rapids, is the author of an article entitled "Cor Pulmonale in Association with Raynaud's Disease: Report of a Case with Sympathectomy," published in the *Henry Ford Hospital Medical Bulletin,* December, 1957.

G. L. Waldbott, M.D., Detroit, is the author of an article entitled "Urinary Fluoride and Calcium Excretion in Persons Suspected of Fluoride Intolerance," published in the *Henry Ford Hospital Medical Bulletin,* December, 1957.

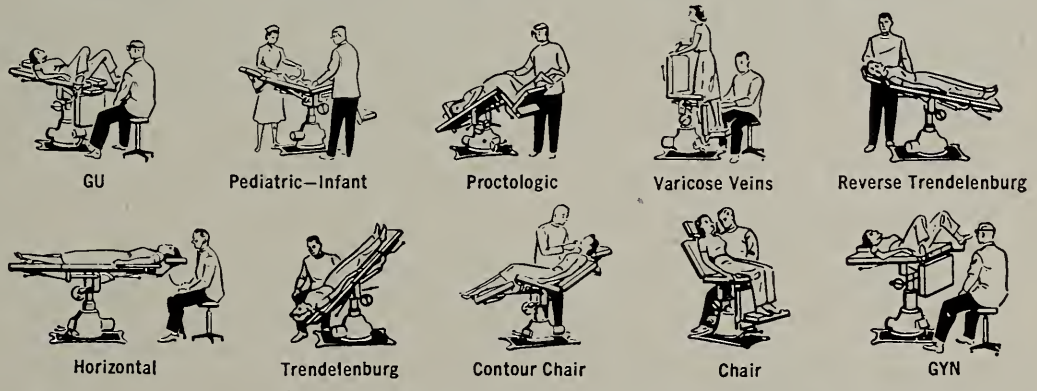
Edwin M. Knights, Jr., M.D., and **Joseph C. Erwin, M.D.,** Detroit, are the authors of an article entitled "One-Drop Test for Urine Protein Determination," published in the *Henry Ford Hospital Medical Bulletin,* December, 1957.

A. Robert Bauer, M.D., and **Philip J. Howard, M.D.,** Detroit, are the authors of an article entitled "Respiration in the Newborn Infant," published in the *Henry Ford Hospital Medical Bulletin,* December, 1957.

Charles Sellers, M.D., Detroit, is the author of an editorial entitled "Patient Relationships," published in *Detroit Medical News,* June, 1957 and reprinted in *Current Medical Digest,* January, 1958.

J. J. Van Gasse, M.D., M.P.H., Jackson, is the author of an article entitled "Counseling and Ataraxia:

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An Effective Combination in the Management of Alcoholics," published in *Clinical Medicine,* February, 1958.

S. J. Bardwell, M.D., is the author of an article entitled "Dystrophia Myotonica," published in THE JOURNAL of the Michigan State Medical Society and condensed in *Clinical Medicine,* February, 1958.

James A. Maher, M.D., formerly of Ann Arbor and now of Goldsboro, North Carolina, is the author of an article entitled "A Statistical Study of Lymphoblastoma in the Necropsy Series at the University of Michigan Hospital," published in the *University of Michigan Bulletin,* January, 1958.

Theodor Bonstedt, M.D., Ann Arbor, is the author of an article entitled "Residential Treatment Centers for Emotionally Disturbed Children," published in the *University of Michigan Medical Bulletin,* January, 1958.

Jack Lapides, M.D., and **J. M. Bobbitt, M.D.,** of Ann Arbor, are the authors of an article entitled "Preoperative Estimation of Renal Function," published in *The Journal of the American Medical Association,* February 22, 1958.

* * *

The search for new anti-polio drugs will go ahead at the University of Michigan school of public health under the grant of $136,155.00, supported by the March of Dimes. The grant, which became effective in January will be under the direction of Thomas Francis, Jr., M.D., professor of epidemiology. Associated with Doctor Francis in this work are Drs. Gordon C. Brown, Wilbur Ackermann, Kenneth E. Cochran and Donald E. Craig.

Commenting on the project, Doctor Francis explained that the investigations will have three broad purposes: (1) to discover a non-toxic chemical effective in the prevention or treatment of polio, (2) to uncover the mechanisms of interaction between virus and cells, and (3) to describe the epidemiological factors which govern the occurrence.

* * *

Applications for federal funds totaling more than $1,500,000 to provide additional medical research facilities at the University of Michigan Medical Center were authorized by the Regents, in January.

Largest amount being requested is $1,000,000 for construction costs on the research portion of the proposed Children's Hospital—Pediatrics Unit.

Another application will be made for $575,000 in U. S. Public Health matching funds for research facilities in the proposed second unit of the Medical Science Building.

* * *

The Veterans Administration announces it has several vacancies for Medical Rating Specialists at an annual salary of $8,645.

For additional information, interested persons may visit their nearest VA Regional Office or Hospital, or write to Personnel Officer, Veterans Administration Regional Office, 49 Fourth Street, San Francisco 3, California.

Gifts and grants totaling $118,834 were accepted by Wayne State University's Board of Governors at their recent (Feb. 19) monthly meeting.

The largest single grant of $37,043 went to the College of Medicine from the U. S. Public Health Service for continuing a cancer-teaching program and research.

Parke, Davis and Co. gave $11,000 to continue bile studies and The Children's Hospital of Michigan gave $3,000 to support a program in anesthesiology, both at the College of Medicine. Student Aids received a total of $7,299. The largest single grant was $3,000 from the Research Staff, General Motors Corp.

* * *

Latest consumer price index of the Labor Department reveals Minneapolis to be highest priced city in matter of consumer costs for medical care. For food, clothing, transportation and all other essential items combined, cost of living is higher in Boston, Chicago, Detroit, Portland and Los Angeles. But for medical care alone, Minneapolis' index of 171.6 is the nation's highest; at least it was at the end of January. This compares with national average of 141.7, which represents a 0.6 per cent rise over the previous month. The increase, said the Labor Department, "resulted from scattered reports of advances in fees for professional services and hospital rates. Group hospitalization insurance premiums also rose in a few cities."—WRMS, March 3, 1958.

* * *

An emergency paging device similar to Dick Tracy's two-way wrist radio is being used at the University of Michigan Medical Center for assembling emergency and security personnel from anywhere in the hospital.

The paging system consists of small compact shirt pocket receiving sets which key personnel carry at all times. When needed, the hospital switchboard operator can signal from one to four persons at once. On the receiving end, the pocket set emits a pleasantly pitched high tone similar to the "beep" noise on a telephone recording machine, but steady. As soon as the receiver hears the tone, he goes to the nearest telephone, calls the operator, and receives the message.

The major advantage of the system, according to Dr. A. C. Kerlikowske, hospital director, is that it makes possible a highly mobile emergency or security force of the limited staff on duty at the hospital at night.

Twenty of the small electronic sets are in use at the present time. The hospital administration hopes to obtain more in the near future, and, if feasible, eventually adopt this as a new call system to replace the hospital's present system. As many as 500 can be used in the same area, having a range of more than a mile.

* * *

The University of Michigan and Ypsilanti State Hospital formally dedicated laboratories which will be used in a $1,000,000 joint research project in schizophrenia and psychopharmacology, February 18, at the State Hospital, outside of Ypsilanti.

The five-year project is the largest such joint research venture ever to be undertaken by a university and a state mental hospital. Ralph W. Gerard, M.D., profes-

sor of neurophysiology and member of the University's Mental Health Research Institute, will direct the research from the University side. Kenneth Moore, M.D., of the State Hospital staff, will be in charge of that phase.

Financing for the project comes from the Psychopharmacology Service Center of the National Institute of Mental Health of the U. S. Public Health Service. The largest single grant ever made by that Institute, more than $850,000, is part of that financing.

Speakers at the dedication ceremony included: Jonathan Cole, M.D., director of the Psychopharmacology Service Center of the National Institute of Mental Health; Ralph W. Gerard, M.D., and Director Charles F. Wagg and Deputy Director V. A. Stehman, M.D., of the Michigan Department of Mental Health.

* * *

Year-round classes considered adoption by Wayne State University of a "Trimester" calendar of three equal fifeen-week terms on a year-round basis has been recommended by a special "University Committee on the Calendar."

According to the Committee, the plan is designed "to seek to operate the University at full capacity by utilizing more fully the faculty and space." Under the trimester system, as little as thirty-two months would be required to qualify for a degree instead of the usual forty-eight months.

The committee will submit its recommendations to the University Council. If approved, the plan would be submitted to the Council of Deans and then to the President. Final approval would be made by the University's Board of Governors.

As proposed, the fall term would begin as soon as possible after Labor Day and continue three weeks into December. The winter term would begin soon after January 1 and would continue to mid-April. The spring term would begin in May and last until mid-August.

By adding the third semester instead of the traditional summer term, the Committee proposes year-round employment of the faculty. At present, most faculty members teach only ten months. Also proposed is a minimum increase of 20 per cent in faculty salaries and a provision to give them relief one semester in four from teaching duties.

Under the proposed program Wayne State could increase its enrollment by at least 20 per cent without additional staff or facilities, according to the Committee.

The Committee also proposed a short summer term to run during the spring semester to fill the needs of the many in-service teachers taking courses in the College of Education. It is expected that September, 1959, would be the earliest date the change-over could be initiated.

* * *

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3, 7-dimethyl-xanthine double salt of oleic acid and magnesium, a stable compound marketed in Austria since 1950 under the name "Perskleran" and used in the treatment of ARTERIOSCLEROSIS is being marketed by MEYER AND COMPANY under the trade name of "Athemol."

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A. W. HEINE, M.D., HONORED

A. W. Heine, M.D., has been honored by the American Legion, Post Number 4, Mt. Clemens, Michigan. Such recognition by lay bodies has always indicated good public relations on the part of the practicing physician and brings prestige to the medical profession.



Dr. Heine graduated from the University of Michigan Medical School in 1917 and has practiced in Detroit and Mt. Clemens since. He is sixty-four years old and still is in active practice. He is a member of the Macomb County Medical Society, the Michigan State Medical Society, and the American Medical Association. The above photograph taken by the *Monitor Leader,* Mt. Clemens, shows Dr. Heine receiving the award presented by the American Legion representative.

* * *

The Health of the Nation . . . "We who deal with the health and medical welfare of our citizens are confronted with great opportunities and grave responsibilities. They challenge the best we can give in planning, in work and in service," said Julian P. Price, M.D., before the American Hospital Association's annual convention last October.

In a new pamphlet, Dr. Price—a member of AMA's Board of Trustees—has analyzed the factors that contribute to our present-day strengths and weaknesses in medicine and medical service and also has predicted the future role of medicine in bringing better care to the American people. His remarks are based not only on his own thinking but also on the suggestions of fifty-six top-notch medical authorities in all parts of the country. This is a message equally significant to physicians and the public. It is a scholarly, realistic appraisal of American medicine today—the progress made and the goals yet to be achieved. We hope that you will find this outstanding speech of value in your community—both for distribution to the public and as background material for articles and speeches. Copies may be secured from the Public Relations Department.

* * *

Guarding against malpractice claims.—Ways in which the practicing physician may guard against malpractice claims are set forth by Lt. Colonel Raymond Coward, Judge Advocate General's Corps, in his article, "Malpractice and the Service Doctor," in the February issue of the *Armed Forces Medical Journal.*

Colonel Coward, Chief of the Legal Office in the Army Surgeon General's Office, Washington, D. C., writes that the service doctor is less likely to be sued in his individual capacity than a doctor in private practice. This is due to the protection given service doctors by the Federal Tort Claims Act and other Federal laws and regulations.

The Colonel gives a ten point guide which will enable the physician, in the Armed Forces or in private practice, to avoid or at least reduce the number of medical professional liability claims.

These points include: (1) avoid careless remarks about the medical treatment the patient may have previously received from another doctor; (2) keep thorough, accurate, complete medical records; (3) make thorough examinations of the patient; and (4) do not experiment with unproven medicines.

* * *

Hawaii Medical Summer Conference.—The recent announcement and invitation to Mainland doctors by the Hawaii Medical Association to attend the Hawaii Summer Medical Conference in Honolulu July 1-3, 1958, has caused a great deal of interest.

The Conference is under the auspices of the Hawaii Medical Association, constituent society of the AMA, and Dr. Samuel L. Yee, President of the Hawaii Medical Association, has extended an open invitation to members of the medical profession to attend the Conference.

Included in the program are breakfast panels and a special afternoon clinic at a local hospital. Such outstanding speakers as Dr. Frederick C. Robbins of Cleveland, Dr. Ernest Jawetz of San Francisco and others of equal stature, will present papers of particular note.

The Conference has been timed to immediately follow the AMA Annual Meeting in San Francisco June 23-27, 1958. Official travel arrangements to Hawaii to attend the Conference are under the direction of Lee Kirkland Travel of Chicago and Kansas City (operators of Medical Tours). Aside from attendance at the scientific sessions, various other official social functions will be provided in the official trips, and a choice may be made of traveling round-trip by air or combining air and steamer travel between the Mainland and Honolulu.

For additional information, Conference Registration Forms, or to place reservations, contact Lee Kirkland Travel, c/o Medical Tours, P.O. Box 3433, Chicago 54, Illinois.

* * *

A new $450,000 appropriation raises to $2,700,000 the amount the Tobacco Industry Research Committee has made available for scientific research on tobacco and health since 1954. This money is made available to the Scientific Advisory Board to make grants-in-aid to independent scientists studying the problems of cancer and heart disease and the questions that have been raised concerning smoking in connection with health. The Scientific Advisory Board is comprised of nine doctors, scientists and educators, the chairman being Dr. Clar-

ence Cook Little, cancer research scientist. Dr. Little's 1957 report reviewed the status of research and reported that evidence does not uphold generalized charges made against smoking.

* * *

M. K. Newman, M.D., Detroit, addressed the Rehabilitation Section of the John Sealy Hospital of the University of Texas Medical Center, Galveston on February 4 and February 5, 1958. Topics discussed were "The Causes and Management of Backache Other than Disc Disease" and "Diagnosis and Management of Myogenic Diseases." Dr. Newman was elected to Fellowship of the Law-Science Academy of America at its annual meeting at the University of Texas, Galveston, February 5, 1958.

* * *

A Joint Action Program aimed at preventing accidents and improving care of accident victims was announced here by the American College of Surgeons, the National Safety Council, and the American Association for the Surgery of Trauma.

The announcement was made by I. S. Radvin, M.D., of Philadelphia, Chairman of the Board of Regents of the American College of Surgeons. The program will include six items:

(1) Public education in accident prevention and handling of the injured.

(2) Employment of joint state and local committees of the American College of Surgeons and National Safety Councils, together with other interested surgeons, safety engineers, and public officials to formulate safety plans for local committees.

(3) Possible registration of unusual cases of injury.

(4) Proposed investigations of emergency care of traffic injuries.

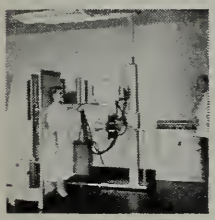
(5) Model legislation to require adequate training in first aid and transportation of the injured for ambulance attendants, policemen and fireman.

(6) Co-operation in the production and improvement of training materials and instructional aids dealing with problems in handling the injured.

Resources of the three organizations will be used in the effort to advise and assist civic groups to obtain passage of local ordinances requiring adequate training in handling of the injured by ambulance attendants, policemen and fireman. Under a proposed model ordinance, ambulance attendants are required to have completed standard and advanced first aid training and additional training as recommended by local health departments, to carry cards indicating their qualifications and to be re-examined and certified annually for their fitness to serve. The following cities now have such ordinances: San Francisco, Minneapolis, Syracuse, Cincinnati, Philadelphia, Flint, Kansas City, Missouri, and Butte, Montana.

* * *

Today's Health, the journal published by the American Medical Association for distribution to the public



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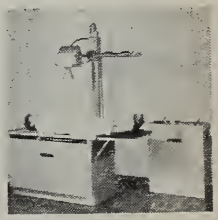
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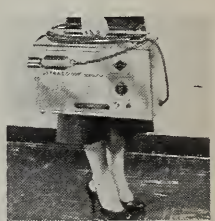
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in general, in discussing driver training for young people in the December, 1957, number, states:

"The state of Michigan has just taken a giant step aimed at reducing teen-ager's highway suicide. It should interest parents, teachers and administrators of the more than 9500 high schools in the country that do nothing for driver education.

"In Michigan, since last February, no one under eighteen can be licensed to drive unless he has passed an approved course in driver education. All licensees must be at least sixteen years old. Michigan thus becomes the first state to make driver training a prerequisite for obtaining an operator's license. State officials have been quoted as saying that the time is long past when we can afford to send a youthful, inexperienced driver on the highway in a modern high-powered automobile with the haphazard training of parents or other adults who themselves may know few of the techniques of a professional driver."

* * *

President Eisenhower has appointed five new members of the National Advisory Committee to the Selective Service System on the Selection of Physicians, Dentists and Allied Specialists to replace members who have resigned. One of the new members is Frances Graff, R.N., Grand Rapids, Director, School of Nursing and Nursing Service, Blodgett Memorial Hospital, Grand Rapids, and Past President, Michigan League of Nursing Education.

* * *

Edmund L. Cooper, M.D., Detroit, was a guest lecturer at the Oklahoma City Clinical Conference in October, 1957. He spoke on "The Principles of Ocular Muscle Surgery" and "The Need for Early Treatment of Strabismus." Dr. Cooper was re-elected secretary-treasurer of the American Orthoptic Council at its annual meeting.

* * *

The American College of Physicians has announced postgraduate courses for the spring of 1958. Courses 1, 2 and 3 will be finished by the time this item is published.

Course 1.—March 3-7, 1958. New York Hospital, New York, N. Y.

Course 2.—April 10-12, 1958. New York University Post-Graduate Medical School, New York, N. Y.

Course 3.—April 14-18, 1958. University of Pennsylvania School of Medicine, Philadelphia, Pa.

Course 4.—May 12-16, 1958. University of Illinois College of Medicine, Chicago. "Current Views in the Diagnosis and Treatment of Cardiovascular Diseases in the Child and the Adult."

Course 5.—June 2-6, 1958. State University of Iowa College of Medicine, Iowa City, Iowa. "Principles and Practice of Internal Medicine."

Course 6.—June 9-13, 1958. The University of Rochester School of Medicine and Dentistry, Rochester, New York. "Selected Topics in Hematology for Internists."

Course 7.—June 16-20, 1958. University of California School of Medicine, San Francisco, California. "Internal Medicine."

* * *

The Fifth International Congress of Internal Medicine will be held in Philadelphia, April 23-26, 1958. This will probably be the world's largest international gathering of scientists and clinicians concerned with internal medicine. Among the eighty-one foreign speakers will be some from the Soviet Union, Czechoslovakia, Hungary, Rumania and Poland. There will be special lectures by Paul Dudley White, M.D., of Boston; Charles H. Best, M.D., of Toronto; Sir Russell Brain of London; Count Aldo Castellani of Lisbon; Josef Charvat, M.D., of Prague; Mariano R. Castex, M.D., of Buenos Aires; Luigi Villa, M.D., Milan; Hisao Morita, M.D., Tokyo; Shields Warren, M.D., Boston; Nanna Svartz, M.D., Stockholm; Jonas E. Salk, M.D., Pittsburgh; Istvan Rusznyak, M.D., Budapest; De Oya, M.D., Madrid; and Carlos Cruz Lima, M.D., Rio de Janeiro. Michigan is represented on the program by John W. Keyes, M.D., Adult Cardiology, Henry Ford Hospital, Detroit.

* * *

Medical Exhibit Program.—A release dated February 26 announces an historic program in the field of medical research and communications, by the Student American Medical Association.

The program aims to encourage medical students, both as assistants to faculty members in important medical research today and as investigators tomorrow, to report their acquired knowledge within the profession through the medium of the scientific exhibit at outstanding medical conventions. All interns and residents are eligible for a special award to be given at the Annual Student American Medical Association Convention in Chicago, May 1-4, 1958.

With the support of Lakeside Laboratories, Inc., the Student AMA is launching a competitive program with prizes of $500, $350, and $250 being awarded to medical students. A separate award of $500 is offered to interns or residents whose exhibit is judged the most significant contribution. In addition, the two $500 winners this year will also enjoy a free trip to San Francisco in June where they will show their exhibits at the annual convention of the American Medical Association.

* * *



Superstitions and misconceptions about tuberculosis set the theme for a new animated film "Are You Positive?" It deals with tuberculosis control efforts including medical care and detection of the disease. Slanted toward the lay public, the film is intended to correct misconceptions about tuberculosis. It is part of a nation-wide information campaign. The motion picture in full color is suitable for school and adult health education programs. Its running time is thirteen and one half minutes. "Are You Positive?" is available through local tuberculosis associations or through the Michigan Tuberculosis Association, 403 Seymour Avenue, Lansing 14, Michigan.—MICHIGAN TUBERCULOSIS ASSOCIATION

* * *

After almost three years of planning, the Educational Council for Foreign Medical Graduates scheduled the American Medical Qualification examination for March 1958.

Sponsoring agencies are the American Hospital Association, Association of American Medical Colleges, American Medical Association and the Federation of State Medical Boards of the United States.

It will distribute to foreign medical graduates around the world authentic information regarding opportunities, difficulties and pit-falls involved in coming to the United States as an exchange student or coming on an immigrant visa with the hope of becoming licensed to practice.

The New Council will provide hospitals, state licensing boards, and specialty boards which the foreign medical graduate designates, with results of the three-way screening.

* * *

Benefit payments by insurance companies to Americans protected by health insurance policies amounted to a record $2.5 billion in 1957, the Health Insurance Institute reported. The figure, the Institute said, represents a 16 per cent increase in benefit payments over the amount paid in 1956.

* * *

A man's home may be his castle, but it can also be his guillotine. This warning was presented by Robert H. Trimby, M.D., of the Ingham County Medical Society at the Michigan Rural Health Conference at the University of Michigan in mid-January.

Doctor Trimby pointed out that home accidents are now the chief cause of death in children under the age of five years in the United States.

The cost to the government for that part of the Medicare program being administered by Mutual of Omaha is running less than was agreed upon, it was announced by the Company in February.

In June 1957, the company stated, a negotiated rate of $1.43 per claim was agreed upon. By the end of 1957, Mutual of Omaha's experience indicates that the cost to the government for providing medical care to dependents of military personnel is now less than $1.30 per claim, a saving to the government of over 10 per cent.

* * *

The Lawrence Reynolds Library, one of the world's most valuable private medical collections, was presented in February to the University of Alabama Medical Center in Birmingham.

The Library is a gift of Lawrence Reynolds, M.D., Detroit Radiologist and Chief of Staff of Harper Hospital, to his native State and to the University where he received his undergraduate education.

Collected over a period of thirty-five years, the Reynolds Library consists of over 5,000 books and about 5,000 manuscripts and autographed letters. Many of the books date from the fifteenth century.

* * *

Responsibilities of both the doctor and the lawyer in a criminal trial involving medical testimony was discussed at the annual joint meeting of the Muskegon County Medical Society with the Muskegon County Bar



* J.A.M.A. *166*:158,1958; Welsh,A.L. and Ede,M.
"...*prompt remissions of...acute phases.*"
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* 1. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.
2. Bleiberg, J.: J. M. Soc. New Jersey *53*:37, 1956.
3. Abrams, B. P., and Shaw, C.: Clin. Med. *3*:839, 1956.
4. Welsh, A. L., and Ede, M.: Ohio State M. J. *50*:837, 1954.
5. Bleiberg, J.: Am. Practitioner *8*:1404, 1957.

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Association, in January. The dinner event was chaired by Harold D. Dykhuizen, M.D., president of the society.

* * *

E. C. Swanson, M.D., of Vassar, was chosen as one of the three elected members of the Executive Council of the Federation of Medical Boards of the United States at the 54th Annual Congress on Medical Education and Licensure held in Chicago, February 8-12, 1958.

* * *

The 1958 meeting of the American Goiter Association will be held in the St. Francis Hotel, San Francisco, June 17-18-19. The three-day program will consist of papers and discussions dealing with the physiology and diseases of the thyroid gland. For hotel reservations write Goiter Housing Bureau, Room 300, 61 Grove Street, San Francisco, Calif., enclosing $10.00 deposit per room.

* * *

The Chicago Diabetes Association is again sponsoring the Summer Camp for Diabetic Children at Holiday Home, Lake Geneva, Wisconsin, July 20-August 10, 1958. Children from eight through fourteen years of age are eligible. For applications and information write the Chicago Diabetes Association, 5 South Wabash Avenue, Chicago 3, Illinois.

* * *

The Fourteenth Congress and Graduate Instructional Course in Allergy of The American College of Allergists will be held in Atlantic City, New Jersey, April 20-25, 1958. For information and registration forms write John D. Gillaspie, M.D., Treasurer, the American College of Allergists, 2049 Broadway, Boulder, Colo.

* * *

Michigan ranks 35th among the forty-eight states in the ratio of private physicians to its population, according to statements made by R. W. Spalding, M.D., chairman of the doctor placement committee of the Michigan Health Council, at the January 22 Michigan Rural Health Conference in Ann Arbor. He said the state has one practicing physician for every 1,218 residents, based on 1956 population estimates. This compares with a national average of one doctor for every 772 persons.

* * *

Seward E. Miller, M.D., was appointed as director of the newly organized Department of Industrial Health in the University of Michigan's School of Public Health by the Board of Regents of the University at their January 10 meeting.

* * *

The Children's Hospital of Philadelphia and the Graduate and Undergraduate Schools of Medicine, University of Pennsylvania, announce a series of short refresher courses for 1958. Course 1—"Pediatric Advances," will be held May 26-30; Course 2—"Practical Pediatric Hematology," June 2-4, and Course 3—"Hemolytic Disease of the Newborn," June 5-6.

Applications and correspondence should be directed to Irving J. Wolman, M.D., Children's Hospital of Philadelphia, 1740 Bainbridge Street, Philadelphia 46, Pennsylvania.

TESTIMONIAL DINNER HONORS H. B. ZEMMER, M.D.

A surprise testimonial was held for Harry B. Zemmer, M.D., on February 13, 1958, by the Lapeer County Medical Society and Auxiliary.



(Left to right) G. W. Slagle, M.D., James R. Doty, M.D., and H. B. Zemmer, M.D.

The testimonial was scheduled as a regular Society meeting, and Doctor Zemmer was greeted by a welcoming group of more than forty confreres who came to pay tribute to a man having made many personal contributions to medicine and health in Michigan during the past thirty-four years. The meeting was arranged by James Doty, M.D.

Billed in advance as speaker for the regular meeting, L. Fernald Foster, M.D., tossed aside notes for his planned speech and recalled for the group some of the activities of Doctor Zemmer since his graduation from Wayne University School of Medicine in 1918. He said in part, "Today we all honor you, Harry, for the many contributions you have made to your profession, your medical organizations and your local and state community. You have been a leader whose accomplishments have always redounded to the benefit of others. Your high standards of personal conduct and achievement would, if emulated by more today, give us a better world in which to live."

Heading the list of colleagues on hand to voice their personal congratulations was George W. Slagle, M.D., MSMS president from Battle Creek. Others included J. K. Altland, M.D., Lansing; Z. Stephen Bohn, M.D., Detroit; H. Waldo Bird, M.D., Ann Arbor; Joseph Beer, M.D., St. Clair; Doctors Leland Howey and Olive Lohr of Saginaw; and MSMS staff members headed by William J. Burns, Executive Director.

Messages of congratulations from those unable to attend were read by James Doty, M.D., who served as toastmaster of the affair. Writers included G. B. Saltonstall, M.D., MSMS president-elect; D. Bruce Wiley, M.D., T. P. Wickliffe, M.D., Ralph W. Shook, M.D., Wilfrid Haughey, M.D.; and Wm. M. LeFevre. M..D.

As a final gesture, Doctor Zemmer was presented with a gold watch—a token of esteem from the members of the Lapeer County Medical Society.

T. Boyd Bolitho, M.D., Chairman of the Marquette-Alger County Medical Society's disaster planning committee, announced last month that members of the society are being organized into groups and teams to function in the event of major disaster requiring large scale medical services. The society's action was in support of civil defense recommendations. The physicians of the area have been divided into three groups on the basis of geography, hospital affiliation and field of practice.

* * *

The Auxiliary to the Muskegon County Medical Society displayed a medical exhibit at the Muskegon Home Show in March.

* * *

The American Medical Association will seek voluntary curbs on misleading and objectionable advertising in line with a resolution by the House of Delegates in November. Plans call for a meeting with media, agency, drug manufacturers and other representatives. The date is still to be set.

* * *

The University of Michigan and Ypsilanti State Hospital formally dedicated laboratories which will be used in a $1,000,000 joint research project in schizophrenia and psychopharmacology on February 18 at the State Hospital, outside of Ypsilanti.

The five-year project is the largest such joint research venture ever to be undertaken by a university and a state mental hospital. Dr. Ralph W. Gerard, professor of neurophysiology and member of the U-M's Mental Health Research Institute, will direct the research from the University side. Dr. Kenneth Moore of the State Hospital staff will be in charge of that phase.

Financing for the project comes from the Psychopharmacology Service Center of the National Institute of Mental Health of the U. S. Public Health Service.

The Michigan State Medical Society and the Clara Elizabeth Fund, in co-operation with the Michigan Department of Health, are sponsoring a workshop for teachers of expectant parent classes at Waldenwoods, north of Brighton, Michigan, on May 20, 21 and 22, 1958. All teachers and prospective teachers of classes and obstetric nursing supervisors are invited to attend. Applications should be made by May 1 to the Maternal and Child Health Division of the Michigan Department of Health.

Members of the Houghton-Baraga-Keweenaw Medical Society and the Copper Country Bar Association, with their auxiliaries, met in early December in Calumet for their second joint meeting in 1957. Presidents of the respective organizations, A. B. Aldrich, M.D., and John Kiiskila, presented plans for the joint sponsorship of the first Career Day in that area. The program will be directed to eighth and ninth grade students, who have not yet selected specific courses of study.

ST. JOSEPH'S RETREAT



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The Central Neuro-Psychiatric Hospital Association

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The Veterans Administration recently announced it will call for bids in May on new clinical and animal laboratories for the VA Hospital at Dearborn, and the animal laboratory for the VA Hospital at Ann Arbor as well as four other construction projects in other parts of the country. Cost range for the Dearborn project is set at $300,000-$400,000, and for Ann Arbor $150,000-$200,000.

CONFERENCE ON REHABILITATION OF PATIENTS IN THE GENERAL HOSPITAL

Kellogg Center for Continuing Education
Michigan State University—East Lansing

May 14, 1958

Morning Session—9:00 a.m.

Introduction to the Conference: F. C. SWARTZ, M.D., Lansing, Michigan, Chairman of the Conference

"The Problem of Rehabilitation and Its Solution"
MICHAEL M. DACSO, M.D., New York, New York
Director Physical Medicine and Rehabilitation Service
Goldwater Mem. Hospital, Bellevue Medical Center

"Materiel Needed for Rehabilitation of General Hospital Patients"
JAMES W. RAE, M.D., Ann Arbor, Michigan
Director, Department of Physical Medicine and Rehabilitation
University of Michigan Medical School

Luncheon—12 Noon

"Restoration Is at Least as Much a Matter of Spirit as of Body"
FR. SUDEKAMP, Secretary of Catholic Charities
Detroit, Michigan

Afternoon Session—1:45 p.m.

"The Personnel Needs for the Rehabilitation of the Patients in a General Hospital"
MAX W. NEWMAN, M.D., Detroit, Michigan
Director of Rehabilitation, Carmel Hall, Detroit

"The Total Worth of a Rehabilitation Effort Directed Toward Patients in a General Hospital"
ISIDORE JAY BRIGHTMAN, M.D., Albany, New York
Executive Director, New York State Interdepartmental Health Resources Board

Question and Answer Panel

Co-sponsored by: Michigan Hospital Association, Michigan League for Nursing, Michigan State Medical Society, Michigan State Nurses Association, and College of Science and Arts—MSU Nursing Education, in co-operation with Continuing Education Service, MSU.

NORTHERN TRI-STATE MEDICAL ASSOCIATION

The 85th annual meeting of the Northern Tri-State Medical Association will be held in the Morris Inn, University of Notre Dame campus, South Bend, Indiana, Thursday, May 8, 1958. The program is as follows (Central Daylight Saving Time):

Morning Session—8:00 a.m.

Welcome—R. A. FARGHER, M.D., President
Keith E. Selby, M.D., President of St. Joseph County Medical Society

"Dynamics of Geriatrics." C. HOWARD ROSS, M.D., Ann Arbor, Michigan

"Fever of Undetermined Origin." FRANK J. HECK, M.D., Mayo Clinic.

"What You Can Do With Your Money—If You Have Any?" DON JUAN FERNANDEZ, of Merrill, Lynch, Pierce, Fenner & Smith, Chicago, Illinois

Social Hour—11:30 a.m.

Courtesy of Wayne Pharmacal Company

Luncheon at Morris Inn—12:00 Noon

Invocation. REV. PHILIP S. MOORE, C.S.C., Vice-President, Academic Affairs, University of Notre Dame.

Remarks: KENNETH OLSON, M.D., President-Elect, Indiana State Medical Association, South Bend, Indiana.

Address: "Medical-Public Responsibility"—THE HONORABLE G. MENNEN WILLIAMS, Governor of the State of Michigan.

Short Business Meeting.

Afternoon Session—2:00 p.m.

"What's the Use of God?" REV. CALVIN W. DIDIER, Presbyterian Church, La Porte, Indiana. (This should be of much interest to both physicians and wives who are invited to attend.)

"The Anticoagulants—Where Are We Now?" KARL PAUL LINK, PH.D., University of Wisconsin. (Recipient of Lasker Award for discovery of Dicumarol.)

"Gynechiatry"—WILLIAM B. KELLER, M.D., Louisville, Kentucky, General Hospital.

Entertainment for the Ladies in the afternoon

Send registration fee of $5.00 and luncheon reservation, at $5.00 per person, to Charles M. Burgess, M.D., 23235 Woodward Avenue, Ferndale 20, Michigan.

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Say you saw it in the Journal of the Michigan State Medical Society

Fred J. Drolett, M.D., Lansing, celebrated his seventy-ninth birthday in January and received a surprise birthday bouquet from the manager of the office building where Doctor Drolett has practiced since its construction in 1923.

* * *

The Monroe County Medical Society held its annual meeting with the Monroe County Bar Association in February. Program chairman for the meeting was W. W. Bond, M.D.

MEDICAL TELEVISION SHOWS

WJBK-TV, Detroit

Produced By
Michigan Health Council

February 2—Subject: How the Doctor Examines Your Heart
Guests: M. S. Chambers, M.D., Flint, President of Michigan Heart Association, John Bielawski, M.D., Detroit, Medical Director of M.H.A., and Ernest T. Guy, Executive Director of M.H.A., of Detroit

February 9—Subject: Hospital Teamwork—(Film—"A Place for Healing")

February 16—Subject: Pre-Teen Behavior—(Film—"From Ten to Twelve")

February 23—Subject: Health Careers—(Films—"Medical Associates" and "Health Careers")

The Ingham County Medical Society announces its thirtieth annual May Clinic, May 1, 1958, at the Hotel Olds, Lansing, Michigan. Speakers will include:

Donald Glover, M.D., Surgery, St. Lukes Hospital, Cleveland

Aaron E. Kanter, M.D., Gynecology, Chicago Medical School

Stuart C. Cullen, M.D., Anesthesiology, University of Iowa.

A. B. Baker, M.D., Neurology, University of Minnesota

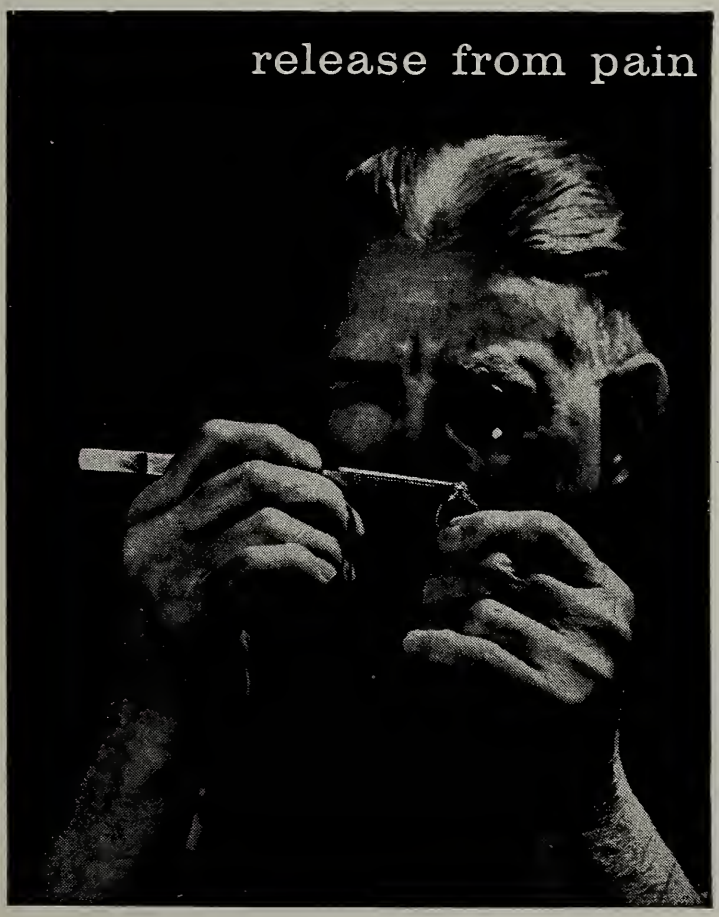
Dr. Ancel Keys, University of Minnesota

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Assisted by Michigan Health Council
Norman H. Parmelee, M.D., Roseville



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Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

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Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

MODERN SEX LIFE. By Edwin W. Hirsch, M.D. A Signet Book. New York: The New American Library, 1957. Price 35 cents.

This is a completely revised and rewritten edition, based on the book, "Modern Sex Life," first published as "Sex Power in Marriage."

THAT DEGENERATE SPIROCHETE. By Oscar Daniel Meyer, M.D. New York: Vantage Press, Inc., 1957. Price $5.00.

This book is definitely not a medical textbook but might be useful in the campaign of public education to control venereal diseases.

H.A.

THE INCURABLE WOUND AND FURTHER NARRATIVES OF MEDICAL DETECTION. By Berton Roueché. Boston-Toronto: Little, Brown and Company, 1957. Price, $3.50.

This book contains a collection of six stories pertaining to problems of medical diagnosis, some involving detective work. While told in novel form for the general public, they still make most interesting as well as instructive leisure time reading for the physician.

H.A.

DEAFNESS, MUTISM AND MENTAL DEFICIENCY IN CHILDREN. By Louis Minski, M.D., F.R.C.P., D.P.M., Consultant Psychiatrist Royal National Throat, Nose and Ear Hospital, Grays Inn Road, W.C.I., Associate Psychiatrist St. George's Hospital, Hyde Park Corner, S.W.I. New York: Philosophical Library, Inc., 1957. Price, $3.75.

This compact eight-page book presents the testing methods for distinguishing mentally defective children from deaf children with capacity for learning by modern method of treatment.

It would be most useful for psychologists, speech therapists and otologists.

R.S.S.

CLINICAL GASTROENTEROLOGY. By Eddy D. Palmer, M.D., F.A.C.P., Lieutenant Colonel, Medical Corps, United States Army. Consultant in Gastroenterology to The Surgeon General; formerly Chief of Gastroenterology Service, Walter Reed Army Hospital. Illustrations by Phyllis Anderson. 616 pages. New York: Hoeber-Harper, 1957. Price, $18.50.

This is a new book, first edition, presenting in excellent fashion the vast experience of the author in clinical diagnosis and therapy of the entire upper and lower gastrointestinal system starting with tongue and pharynx, and accessory organs, the spleen, pancreas, gall bladder and liver. He presents a new concept of the anatomy of the normal esophagogastric junction as it exists during life, the junctional area, with a "redefinition of the normal location of the esophagogas-

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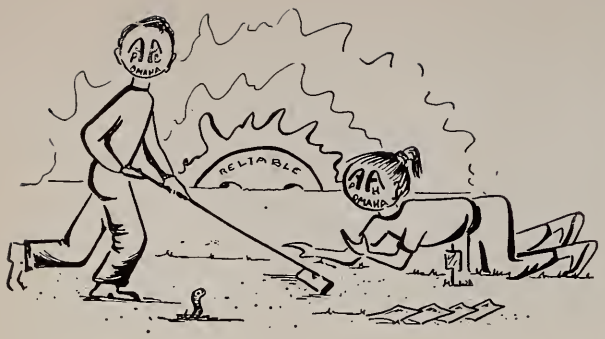
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tric mucosal junction" in his discussion of mucosal prolapse at this area. A fine chapter is devoted to diagnosis of the abdomen in general, reminding us of abdominal epilepsy, abdominal migraine and abdominal angina.

New techniques and methods of diagnosis to find obscure gastric lesions are covered. The discussion on gastritis is unusually complete, a bit controversial these days. Adult hypertrophic pyloric stenosis is well handled, and has appeared more and more in the literature recently. The use of aortography in diagnosing gastrointestinal bleeding is presented. Vagotomy is discussed and given approval; total gastrectomy has been abandoned, the dumping syndrome is thoroughly discussed along with other postoperative problems which follow gastric resections.

Peutz-Jeghers Syndrome, only recently publicized, is described in detail, along with the syndrome of malignant small intestinal argentaffinoma with systemic effects. Hirschsprung's disease is discussed as a surgical lesion, and early surgery for diverticulitis is advised. A very complete discussion is given on ulcerative colitis, and the danger of the new hydrophilic colloids as foreign bodies is stressed.

New methods of diagnosis in portal hypertension such as splenoportography are covered well with review of therapeutic measures such as the Sengstaken tube, portocaval and splenorenal shunts. The use of intravenous cholografin and operative cholangiography in difficult biliary tract diagnoses is presented. The "silent gall stone," the postoperative cholecystectomy syndrome and its many ramifications, the treatment of acute and chronic pancreatitis are covered thoroughly, as are common and uncommon lesions of the spleen. A final chapter on gastrointestinal manifestations of certain far-removed diseases is very timely, including the anemias, cardiovascular lesions, infections, pregnancy, urological lesions and anorexia nervosa. This is an excellent reference volume for physicians and surgeons in all the fields of medicine.

S.B.W.

BOOKS RECEIVED

SIXTH INTERNATIONAL CONGRESS OF OTOLARYNGOLOGY. Washington, D. C., May 5-10, 1957.

INTERNATIONAL DIRECTORY OF OTOLARYNGOLOGY. Washington Congress Edition. (Revised) Philadelphia, 1957.

FEAR: CONTAGION AND CONQUEST. By James Clark Moloney, M.D. Philosophical Library, Inc., New York. Price $3.75.

MEDICAL SERVICES FOR RURAL AREAS. The Tennessee Medical Foundation by William A. Massie, Chairman, Health Committee, Council of the Southern Mountains, formerly Field Secretary, The Tennessee Medical Foundation. Published for The Commonwealth Fund by Harvard University Press, Cambridge, Massachusetts. Price $1.25.

ESSAYS IN METABOLISM. The John Punnett Peters Number of the Yale Journal of Biology and Medicine. Edited by Louis G. Welt, M.D. Professor of Medicine, University of North Carolina School of Medi-

cine, Chapel Hill. Little, Brown and Company, Boston-Toronto. Price $6.50.

HEALTH YEARBOOK 1956. Compiled by Oliver E. Byrd, Ed.D., M.D., F.A.P.H.A. Professor of Health Education, Stanford University. Stanford University Press, Stanford, California. Price $5.00.

FADS AND FALLACIES IN THE NAME OF SCIENCE (Formerly published under the title, In the Name of Science). By Martin Gardner. New York: Dover Publications, Inc., 1957. Price $1.50.

HEAD INJURIES AND THEIR MANAGEMENT. By Francis Asbury Echlin, M.D., C.M., M.Sc., M.E.D., Sc.D., F.A.C.S., Professor Clinical Neurosurgery, New York University-Post Graduate Medical School; Neurosurgeon, Lenox Hill Hospital; Attending Neurosurgeon, Bellevue Hospital and New York Eye and Ear Infirmary; Consulting Neurosurgeon, St Luke's Hospital, Newburgh, and Kingston Hospital. Philadelphia and Montreal: J. B. Lippincott Company, 1957. Price $3.00.

CIBA FOUNDATION SYMPOSIUM ON BONE STRUCTURE AND METABOLISM. Editors for the Ciba Foundation, G. E. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Cecilia M. O'Connor, B.Sc. 121 illustrations. Boston: Little, Brown and Company, 1957. Price $8.00.

NOTES ON ATOMIC ENERGY FOR MEDICAL OFFICERS. An Introduction to the Subject for Service and Other Medical Officers who may be concerned with defense against atomic bombs and similar problems. By the Royal Navy Medical School. Alverstoke, Hampshire, England. New York: Philosophical Library, 1957. Price $4.75.

ADDRESS OF WELCOME

(Continued from Page 598)

It is wonderful that we can do all these things mechanically and technically and scientifically, and of course we are on the threshold of the greatest development in the history of our nation in that way. However, unless we are able to handle that in our day-to-day living on our local governmental level, on a state level and certainly on our national level, we will not derive and could not conceivably derive the maximum benefits from those things which you people and your associates in the scientific world are presenting to us.

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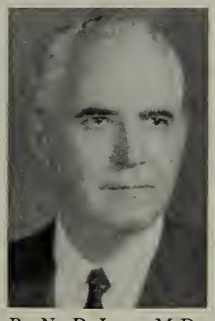
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G. C. BROWN, Sc.D.



F. M. DAVENPORT, M.D.



R. N. DEJONG, M.D.



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HARRY LAMB, M.D.



N. F. MILLER, M.D.



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Heart Beats

HEART ASSOCIATION ELECTS OFFICERS

F. D. Dodrill, M.D., the Detroit heart surgeon who conceived and developed the first mechanical heart successfully used on human beings, took office as President of the Michigan Heart Association at the Association's annual board meeting held March 21, 1958, in Detroit. The meeting was held in conjunction with the Michigan Clinical Institute at the Sheraton-Cadillac Hotel.



F. D. Dodrill, M.D. (*left*), Detroit, who was elected President of the Michigan Heart Association, presents the Association's Certificate of Appreciation to M. S. Chambers, M.D., Flint, the retiring President. The presentation was made at the Association's annual Board meeting held in conjunction with the Michigan Clinical Institute, March 21.

Dr. Dodrill is a graduate of the Harvard Medical School and is a surgeon in the Thoracic Surgery Departments of Harper and Mt. Carmel Hospitals in Detroit. He is one of the original incorporators of the Michigan Heart Association and has served on its Board of Trustees continuously since its incorporation in February, 1949.

The original mechanical heart is now a permanent exhibit at the Smithsonian Institute in Washington, D. C. It was rated as one of the top ten scientific developments of 1952 by the National Association of Science Writers and it received the bronze Hektoen Award of the American Medical Association for original investigation in June, 1953. The General Motors Corporation Research Laboratories undertook the engineering phase of the development of the mechanical heart as a public service. Dr. Dodrill is the author of numerous manuscripts on the development of the heart-lung bypass operation.

At the same meeting, Donald S. Smith, M.D., a Pontiac internist, was named President-elect. Dr. Smith has served as chairman of the Association's Research Committee for the past three years. Mr. Frank N. Isbey, Detroit, was elected chairman of the MHA Board of Trustees. Mr. Isbey was one of the original incorporators of the Michigan Heart Association and has served as chairman of the Finance Committee since its incorporation in 1949.

Other officers named were: Sidney E. Chapin, M.D., Dearborn, Secretary and Mr. Alfred T. Wilson, Detroit, Treasurer. The following persons were elected as Vice Presidents: Muir Clapper, M.D., and Mrs. Ruth McEvoy of Detroit; F. D. Johnston, M.D., of Ann Arbor and Milton Shaw, M.D., of Lansing.

Dr. Dodrill made the following standing committee appointments at the meeting:

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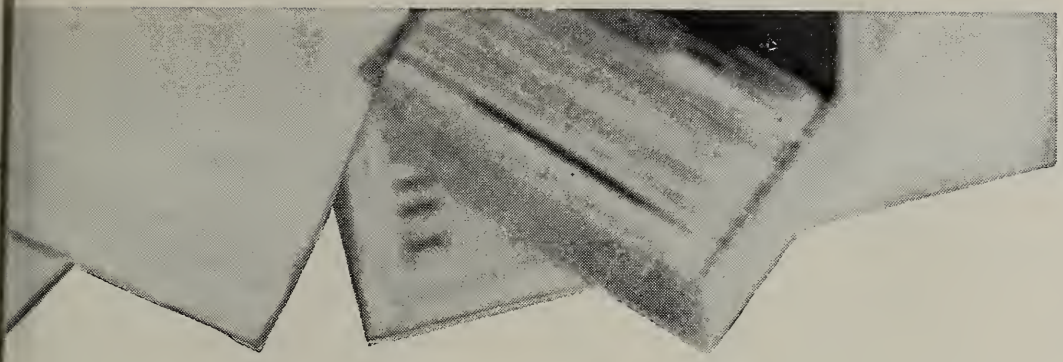
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(Continued on Page 777)



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iew of the beneficial re- observed when antacids d diets were used concom- ith prednisone and predni- ve feel that these measures e employed prophylacti- offset any gastrointestinal cts."—Dordick, J. R. *et al.*: te J. Med. 57:2049 (June 7.

*"It is our growing conviction that all patients receiving oral steroids should take each dose after food or with adequate buffering with aluminum or magnesium hydroxide preparations."—Sigler, J. W. and Ensign, D. C.: J. Kentucky State M. A. 54:771 (Sept.) 1956.

*"The apparent high incidence of this serious [gastric] side effect in patients receiving prednisone or prednisolone suggests the advisability of routine co-administration of an aluminum hydroxide gel."—Bollet, A. J. and Bunim, J. J.: J. A. M. A. 158:459 (June 11) 1955.

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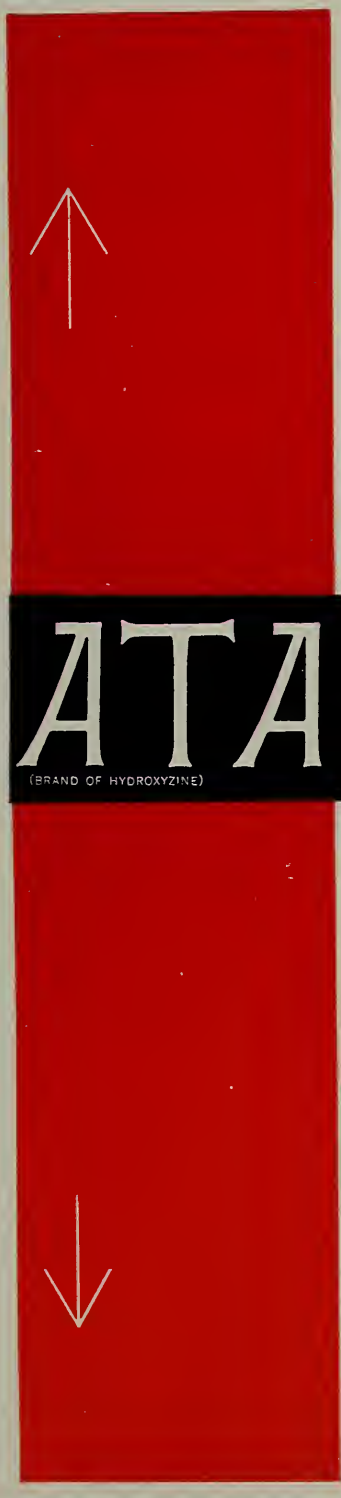
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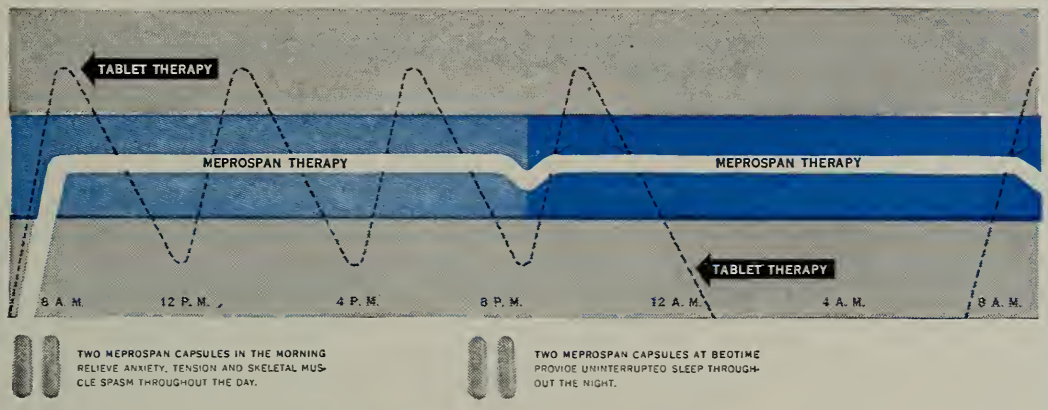
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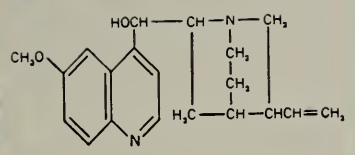
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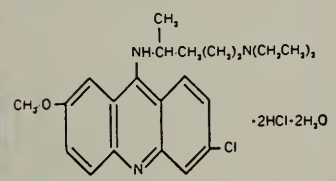
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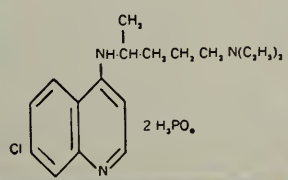
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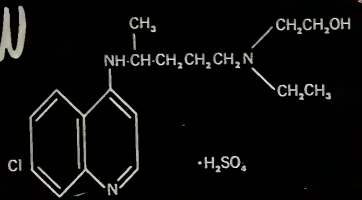
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A L., Schuchter, S.L., and Harrison, J.W.: *Cleveland Clin. Quart.* 24:98, Apr., 1957.
A G., and Alexander, L.J.: The Schoch section, *Bull. A. Mil. Dermatologists* 5:25, Nov., 1956.
Theodore: Arch. Dermat. 73:572, June, 1956.

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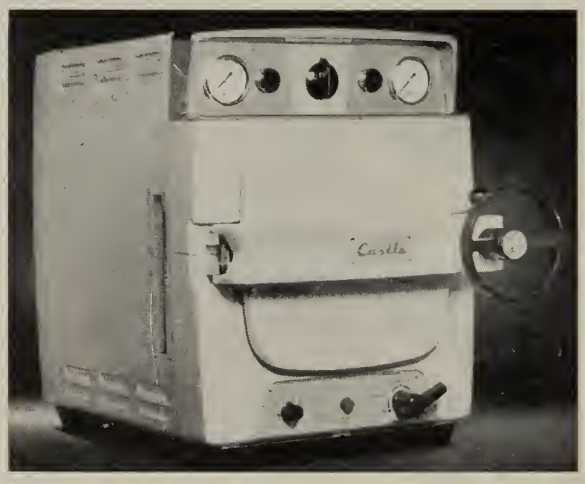
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Editorial Comment

E POLIO MIRACLE IS /E YEARS OLD

Time passes so quickly that perhaps only the medical fession is aware that it was just five years ago today— March 26, 1953—that a modern miracle was an- nced.

It was on that day that Dr. Jonas E. Salk of the iversity of Pittsburgh announced that he had devel- ed a new vaccine capable of immunizing people against io.

Results since that day have been spectacular. More n 64 million persons in this country alone received e or more injections against polio in those five years. ie U. S. Public Health Service reports that the inci- nce of paralytic polio has been reduced 84 per cent the last two years. In the decade preceding the use the vaccine, 30,000 to 40,000 cases of polio were corded in this country every year. In 1952, the year fore the vaccine was announced, 57,740 cases were corded. In 1957, there were only 5,946 cases. Of ese, 36 per cent were paralytic, 48 per cent non- ralytic, and 16 per cent unspecified.

Inasmuch as the polio "disease year" begins on April the challenge continues to present itself, and efforts ould be made particularly to inoculate children under /e—although less than one-third of all persons under rty have received the maximum protection available them. But five years after the miracle, it is satisfying be able to report tremendous progress. Once again ie public must co-operate fully with its medical men the best possible results are to be achieved.—*Battle reek Enquirer-News,* March 26, 1958.

OOD HEALTH FROM APPLES?

It's a wonder the medical profession hasn't thrown picket line around Michigan State University on the rounds that the school is unfair to physicians.

We're just spoofing, of course, but consider, for a noment, the experiment now being conducted by the MSU horticulture department in an effort to prove whether an apple a day really does "keep the doctor way."

The test calls for 500 students to consume a total of 7,000 apples every week for four years. Now then, what will it mean if results prove the truth of the old adage? It will mean, by simple multiplication, that 1,456,000 doctors will be kept away—thrown out of work! Is that fair?

Well, the experiment does promise to be an interesting one, and may well prove something health-wise. If not, it certainly won't do the apple crop any harm.—*Battle Creek Enquirer-News,* March 27, 1958.

A FABLE?

One warm afternoon in June the eighty-fourth amend- ment to the Social Security Act was passed in a welter of last-minute pre-vacation legislation. Only a few naïve freshmen and a brace of die-hards in Congress had bothered to even review these amendments in recent years. To oppose them meant a seat on the sidelines after November. 40% of all taxpyayers were now over the magic age of fifty-six and thus vitally interested in their passage. A few strokes of the pen and the Dis- ability Insurance "Trust" Fund had become The Health Insurance "Trust" Fund. The President inspired deeply and signed. The death of the private practice of medi- cine was that simple.

A spokesman for the American Medical Association was quoted as "giving this ogre six months to live." Without doctors, "medical care for all" seemed a fatuous promise.

Somehow doctors appeared. Only a few, of course, from the fringe. These were promptly expelled by the various chapters and the fraternity held firm. Or nearly firm. One could not refuse the call of an old patient in critical condition. Mild censures followed, but generally this practice seemed only humane, and more and more "emergencies" were condoned. As the economic fat pad began to melt new frictions ap- peared. Ugly rumors were heard, denied, repeated and, alas, finally proven.

Virtuous martyrdom gave way to probing self-ex- amination as the official posture of the organization fal- tered. The fee schedule, it was admitted, was more than generous. The rugged individualist had perished, in fact, two decades ago. Also there were the new security and retirement features. A man could get along, but he surely owed something to his family. Only the patient, after all, was suffering as a result of this political stalemate. The steadfast idealist in the mirror curiously took on the look of a stubborn fool.

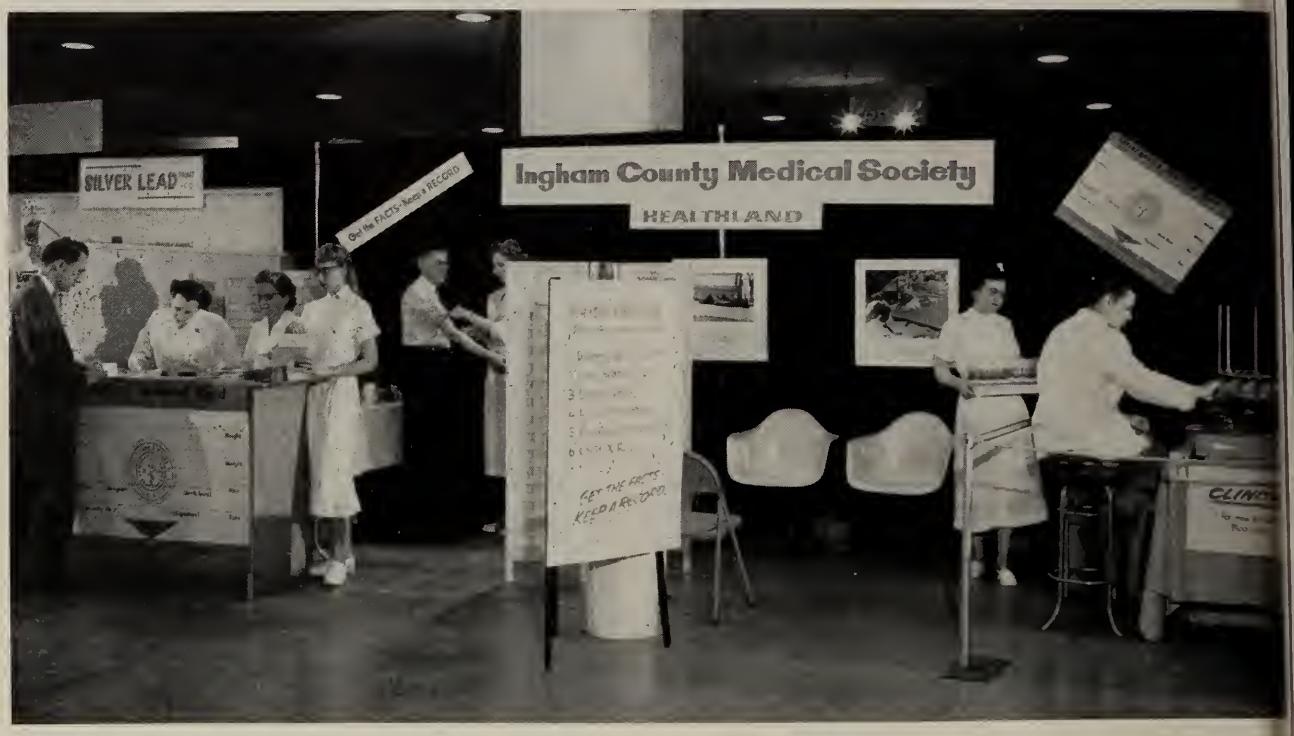
In several pressure areas county societies voted seces- sion rather than the continuation of practice under the existing double standard which had evolved. This was viewed as a step requiring great moral courage by unions, mass communication media, and surprisingly, by a significant body of the profession. And then creak- ing platform collapsed.

Later, of course, the fee schedule was revised— and re-revised. The descent of the qualifying age was matched only by the rise in taxes. Thus was Utopia born.—*Calhoun County Bulletin,* April, 1958.

Women, traditionally the weaker sex, are rapidly becoming much hardier than men in one major health area, according to a new publication, *Patterns of Dis- ease,* prepared by Parke, Davis & Company for the medical profession.

It shows that while in 1915 the two sexes faced the same death risk from heart disease, the death risk for women is now one half of that for men.

PR REPORT



INGHAM COUNTY SOCIETY EXHIBITS AT HOME-ORAMA

The Ingham County Medical Society participated in the 1958 Lansing Home-arama, held for five days in the new Civic Center exhibition hall, beginning, March 26. Sponsored by the Lansing Home Builders Association and the Junior Chamber of Commerce, this free show attracted an attendance of 49,000 people.

Featured in the medical society's display were the MSMS emergency medical card and family health record which were distributed to the public. Several hundred visitors also had their blood drawn for free typing, Rh and blood sugar determinations. The latter rapid screening test was done on the spot with people watching the Clinitron in action. More than 1800 visitors also took advantage of the mobile chest x-ray service.

With doctors manning the booth as hosts, other personnel included members of the medical auxiliary, Ingham County Medical Assistants Society, and Michigan State Health Department Laboratory. Co-operating also in the project were the Ingham Chest Hospital and Mr. John K. Pardee, Michigan State Medical Society Field Secretary.

The exhibit was well received and was publicized by the Home-arama as a public service of the Ingham County Medical Society.

ORIGINS OF SELF REGULATION IN MEDICINE: PART IV

By Gaylord S. Bates, M.D.

The plan instituted by the Norman King Roge at Salerno, reinforced by the regulations of Fred erick II of Hohenstaufen now became the prac tice in other European universities. The studen had to pass an examination to become a bachelo and another to become a licentiate which conferre the right to practice. The license was usuall conferred by the university chancellor who wa often a cleric representing the pope. A furthe examination conferred the title of doctor whic carried the privilege and duty of teaching for time. Whoever practiced without a license wa excommunicated and often punished by municipa authorities. The license gave the privilege o practice in all Christian countries. When a phy sician moved from one city to another he ha to obtain permission from the municipal authori ties to settle there, as did every person wh

(Continued on Page 662)

This is the fourth installment of a paper presente before the Detroit Academy of Medicine at the Dearbor Inn, November 12, 1957.

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1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).
2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

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SELF-REGULATION IN MEDICINE

(Continued from Page 658)

changed residence, and then present his diplomas to the university at that city to have his privileges renewed. Usually he paid a fee and took another examination in order to demonstrate continuing proficiency in his art. If there were no university he presented his credentials to the city authorities. The fact that many cities, some of them large, had no university led to the establishment of medical oragnizations by government charter to carry out this licensing function. The Royal College of Physicians in London was so organized in 1518. At that time no person except a graduate of Oxford or Cambridge was allowed to practice in England unless he had been examined and approved by designated officers of this college. Scotland followed this example in 1617.

In later centuries the universities lost their high standing. Their standards became more unequal; medical science developed more and more outside the university, and there came to be more state interference in university affairs. By the 18th century the university degree was no longer a guarantee of fitness to practice medicine. Led by Prussia in 1725, states began to take from the universities the right to license and reverted to the situation obtaining in Italy at the time of Frederick II 500 years before. The medical faculties instructed according to a curriculum prescribed by the state and then examined the students for the degree. The state controlled the examination and issued the licenses without which no person could call himself a physician.

NEW RULING ON MEDICAL REDUCTIONS

Internal Revenue Service has clarified conditions under which expenses of travel, undertaken at a doctor's direction, may be deducted from taxable income. An elderly taxpayer, who was suffering from arteriosclerotic heart disease, had been advised by his doctor to go to a predetermined location where the temperature would be more suitable and where he could receive proper medical care. The physician also banned any further travel or sightseeing. Also, the physician advised the patient to have a nurse accompany him to administer the necessary injections and medications and to help him in and out of his wheelchair.

IRS ruled that because the travel was to alleviate specific ailments and was not for general improvement of health, the taxpayer was entitled to deduct his travel expenses and those of his nurse.—*AMA Washington News Letter.*

PUBLIC RELATIONS BEGINS IN THE DOCTOR'S OFFICE

Fourth installment of a paper by
R. Wallace Teed. M.D.. Ann Arbor
Chairman, MSMS Public Relations Committee

Doctors Must Communicate

The history and physical examination completed, the next step is in the field of communication. The patient wants to know what is wrong, and it is up to the physician to tell him this—in English. No one knows better than I how difficult this is, but it must be attempted. Many medical terms are derived from the Greek and Latin, and have, in addition, no common equivalents, but the physician must find some way of telling the facts in language that the patient can understand. In doing this, the meaning may be slightly distorted, but this is a lesser evil than leaving the patient in the dark. No patient complaint is more bitter than: "My doctor told me nothing."

To the busy physician, it may be sheer torture to sit down and explain step-by-step something which to him is mere routine, but it must be remembered that, to the patient, this may be the first introduction to a fearsome situation, and if he does not understand it, he questions whether the doctor does. He will frequently seek another physician, or perhaps a cultist, who will give him the information he seeks. I recently had a patient tell me, "Doctor, I have been examined by several physicians during the past four months, and this is the first time that anyone has told me anything about my trouble." This is not an uncommon experience.

After telling the patient what is wrong, the next step is to indicate what the treatment is to be. In many cases, the co-operation of the patient is essential for good results, and he cannot co-operate unless he knows why he is asked to do this or that. Sick people also may not remember details very well, and it may therefore be well to write down the various items advised so that nothing will be neglected.



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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

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MSMS Principle for Income Level Determination

By Max L. Lichter, M.D., Detroit

The problem of establishing income levels of subscribers for medical care insurance purposes has proved difficult of solution in the past. Methods used in connection with Blue Shield contracts have been unsatisfactory because they were based upon the family income averaged over a preceding three-year period and because there was no enforceable relationship between income and type of contract (so based) which was purchased. No method could be devised to determine in fact what a family's income might be since no positive method of ascertainment could be established. As a result much misunderstanding and attendant resentment flourished. Charges of bad faith were leveled at both physicians and patients.

In the past few years, much thought and study has been given to this crucial situation by the Michigan State Medical Society, Blue Shield and consumer groups. The House of Delegates Committee to Study Prepaid Insurance Plans recommended in 1957, that "the present method of determining income be re-examined." Two things were essential to an acceptable solution: (1) that income be realistically and readily established and designated, and (2) that a subscriber must obtain that contract into whose income limits his income fell.

These criteria have been fulfilled in the Principles of Medical Care Insurance as adopted by the House of Delegates of the Michigan State Medical Society on September 25, 1957. The pertinent statements are:

"The income level shall be determined by a projection of the current rate of earnings of the basic wage-earner in the family and not by the family income."

"Where the basic income is not readily determined and established (such as self-employed, farmers, salesmen on commission) the Committee on Medical Care Insurance of the Michigan State Medical Society shall develop appropriate criteria for determining eligibility for service benefits."

"The insurance carrier shall be responsible for classification of subscribers and appropriate designation of the Plan in which they must be enrolled. Income designation shall reflect the subscriber's current rate of pay projected on an annual basis. This designation shall be reviewed annually and changed as indicated by the review."

It was believed that since family income could not be established easily and with certainty it was fallacious to continue with the present method. The averaging method, further, could not take into account income fluctuations. But since employers must make payroll deductions based upon actual earnings for a variety of purposes, it was evident that this provided a positive approach to income determination related to medical care insurance. It was apparent that this could be readily done by employers.

The income designation then becomes simple to establish since it is to be "the current rate of pay projected on an annual basis," not how much an individual actually earned. For an hourly-rated employee a normal work year consists of 2080 hours. Thus, his income designation for this purpose would be his hourly rate multiplied by 2080. Overtime pay and shift premiums are not included since they represent inducements for the employee to extend himself beyond what is regarded as usual. On the other hand, if the employee worked less than 2080 hours in a year, as an example 1040 hours, this would not affect his income designation in terms of the definition adopted. Conversely, there would be no change if he worked more than a normal work year, such as 2500 hours. Both circumstances would average out any seeming advantages and disadvantages and thus remove income fluctuation as a complicating factor.

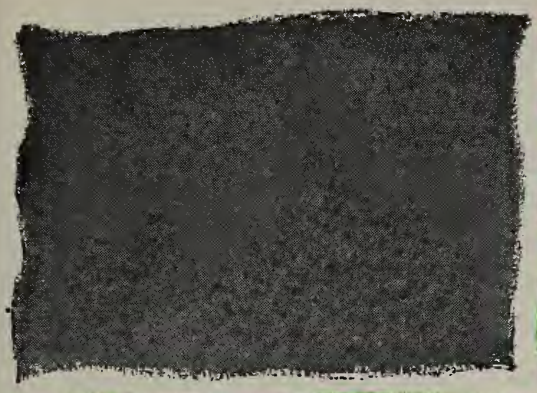
In the case of a salaried employee, the current rate of pay would be based upon the method of payment of the employer, i.e. weekly, semi-monthly, monthly. This would then be projected on an annual basis and income level designation established. Again, this would not reflect, necessarily, the actual earnings since they might be greater due to overtime pay and shift premiums; or they might be less if the amount of working time were less than a normal work year. It was believed that over a period of time these would average out.

It has been said that situations exist where someone in a family, for example the wife, might be employed at a wage greater than the basic wage-earner of the family—the husband. However, it must be conceded that when one considers the huge number of Blue Shield contracts in effect the percentage of such instances would be very small. To regard such an infrequent example as an inequity which must be considered in planning could lead only to complicating a greater problem which needs to be made less complicated.

It appears that no matter how much consideration and deliberation goes into planning, the proposed solution can be found to contain inequities. *The only logical solution is to recognize that inequities will exist and therefore that plan or proposal must be selected which has the fewest inequities when related to the total picture.* This is the approach which has been used in developing the new income level determination.

To compensate for possible inequities which might be envisioned, the fee schedules for the old income level contracts have been adjusted so that they reflect an overall increase of about 15 per cent. This figure happens to coincide with that

(Continued on Page 666)



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ACHROSTATIN V combines ACHROMYCIN† V ... the new rapid-acting oral form of ACHROMYCIN† Tetracycline ... noted for its outstanding effectiveness against more than 50 different infections ... and NYSTATIN ... the antifungal specific. ACHROSTATIN V provides particularly effective therapy for those patients prone to monilial overgrowth during a protracted course of antibiotic treatment.

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, N. Y.
*Trademark †Reg. U. S. Pat. Off.

Lederle



"No patient failed to improve."[1]

pHisoHex washing added to standard treatment in acne produced results that "...far excelled... results with the many measures usually advocated."[1]

pHisoHex maintains normal skin pH, cleans and degerms better than soap. In acne, it removes oil and virtually all skin bacteria *without scrubbing.*

For best results—four to six washings a day with pHisoHex will keep the acne area "surgically" clean.

1. Hodges, F. T.: *GP* 14:86, Nov., 1956.

pHisoHex®

Sudsing nonalkaline antibacterial detergent—nonirritating, hypoallergenic. Contains 3% hexachlorophene.

Winthrop LABORATORIES New York 18, N. Y.

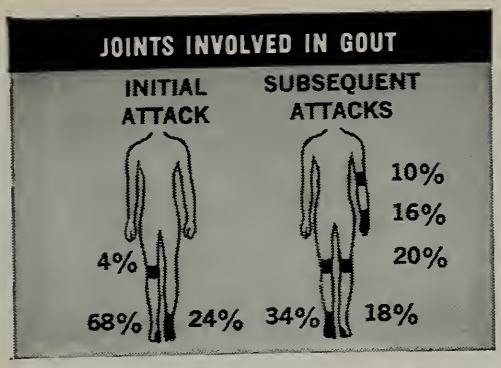
MSMS PRINCIPLE FOR INCOME LEVEL DETERMINATION

(Continued from Page 664)

regarded as representing the average increase of family income over basic income. Since medical care insurance is based upon averages, and involves literally millions of people, it is evident that the new method does take into account the matter of family income, yet provides a more precise method of arriving at income designation.

Since physicians' fees traditionally have been based upon the "ability to pay" principle, the stipulation is made that a subscriber must enroll in that Plan into whose income level his projected earnings fall. It must be recognized that there must also be, on the part of the subscriber, an ability to pay the premium for his prepayment coverage. This recognition is consistent with medicine's traditional principle. It has been found that the cost of medical care insurance (Blue Shield) approximates its portion of the 4 per cent of the national gross income which an accepted survey indicated is spent annually for complete medical care (excluding drugs, prosthetic devices, glasses, et cetera). The payment of premiums represents a pooling of fiscal resources by patients to better enable them to meet the costs of medical care. This should, in no sense, be regarded as a departure from the "ability to pay" principle, at the risk of unrealistically increasing (and disproportionately so) the cost of medical care. The patient, then, has the responsibility of maintaining his part in our traditional principle by enrolling (even by requirement) in a commensurate plan. This circumvents opportunity for unhappiness resulting from additional charge over the service benefit because of inherent misunderstanding which could exist when an individual purchases a contract with a level less than his projected income. *Service benefit is the key to the strength of medicine's position in the medical care field.* The best way to maintain this strength is to combine and relate the role of the physician and the patient in the "ability to pay." This certainly cannot be regarded as compulsive in the sense of abridging a right.

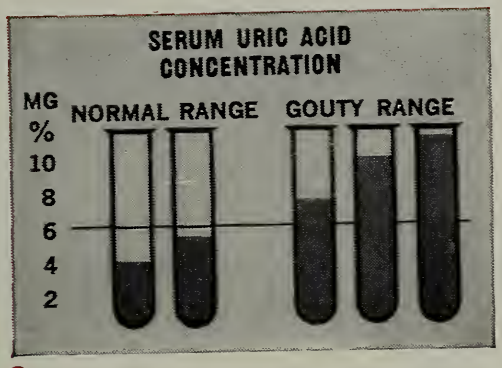
It is believed the new method is based upon logical grounds and that it is workable. If it be remembered that perfection has never been achieved, no serious objection can be made to any imperfection which upon reflection represents a very small percentage of the total. This method, which is a forward step, will go into effect with the new contracts to be offered by Blue Shield. Until some better solution is developed, it is essential that every physician in Michigan understand what is to be done in income level determination. It is essential that every physician in Michigan lend his sincere co-operation to make this effective. —*Detroit Medical News,* March 24, 1958.



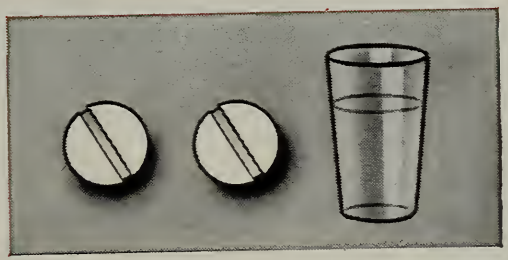
1. Recurrent joint pain followed by long periods of complete remission. *(Percentages refer to incidence.)*



2. Enlargement of bursae such as in this case involving the olecranon bursa.



3. Elevated serum uric acid levels.



4. Colchicine test: full dose (0.5 mg.) every 1 to 2 hours until pain is relieved or nausea, vomiting or diarrhea occur. The test requires usually 8 to 16 doses. Pain relief is highly indicative of gout.

FROM THESE FINDINGS...SUSPECT GOUT:

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PROBENECID

A SPECIFIC FOR GOUT

Once findings point to gout, long-term management can be started with BENEMID. This effective uricosuric agent has these unique benefits:

- Urinary excretion of uric acid is approximately doubled.
- Serum uric acid levels are reduced.
- Uric acid deposits (tophi) in tissues are mobilized.
- Formation of new tophi can often be prevented.
- Fewer attacks and severity is reduced.

RECOMMENDED DOSAGE: 0.25 Gm. (½ tablet) twice daily for one week followed by 1 Gm. (2 tablets) daily in divided doses.

BENEMID is a trade-mark of Merck & Co., Inc.

MSD

MERCK SHARP & DOHME

DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

You and Your Business

CONFERENCE ON REHABILITATION OF PATIENTS IN THE GENERAL HOSPITAL

A conference on rehabilitation of patients in the general hospital was held at Kellogg Center, Michigan State University, East Lansing, May 14, 1958.

The objective of the conference was to inform and teach representatives of every service of a general hospital that might have anything to do with a rehabilitation program the broad, general concepts of rehabilitation and inspire them to go back to their respective institutions and spread the gospel, that rehabilitation need not be confined to a few highly specialized facilities in large cities, but should rather become, first, a type of philosophy that is applied to all patients and, second, a continuing constructive effort.

Michael M. Dacso, M.D., of New York City, Bellevue Medical Center, discussed the "Problem of Rehabilitation and its Solution." This keynote address ideally included the history, certain definitions, purposes, philosophy and progress for the future.

James W. Rae, M.D., of Ann Arbor, Michigan, discussed "Material Needed for Rehabilitation of General Hospital Patients." This presentation was concerned with the concept of the idea of aid to the handicapped and proceeded thence to the simpler gadgets which can be constructed by anyone with a little training and imagination and continuing on to the more complicated instruments necessary to do a more complete job.

Following the luncheon, Father Sudekamp, Secretary of Catholic Charities, Detroit, Michigan, addressed the group on the subject, "Restoration is At Least as Much a Matter of Spirit as of Body." To heal the one without the other is impossible. The crucial period is the time spent in the hospital—use that period to create in the mind, will power; neglect to use it and the heart of many a sufferer and of many a would be healer will break from sheer discouragement.

Max W. Newman, M.D., Detroit, Michigan, discussed "The Personnel Needs for the Rehabilitation of the Patients in a General Hospital." This talk dealt primarily with a listing of individuals needed but with those ideal characteristics that would make all those individuals who have contact with rehabilitation programs an asset rather than a liability. This talk also included the type of training necessary to produce these personalities.

Isidore J. Brightman, M.D., Albany, New York, Executive Director of the New York State Health Resources Board, presented the size of the rehabilitation problem, the impact economically on a community and the individual, and also discussed whether rehabilitation pays or not from the standpoint of the patient, the community and the hospital.

"NINE CANCERS WERE FOUND"

"Through regular examinations, we can uncover much unsuspected disease, can contribute to longevity, and can reduce disability," states Charles J. Tupper, M.D., Director of the University of Michigan periodic health appraisal program, just completed. The first year's results of the periodic examination program were "startling," says Doctor Tupper. Ages varied from forty-three to eight-seven years; all were professional people—most between fifty and sixty years of age.

Of 465 disease conditions or defects not previously recognized or known to exist; 245 were of such importance as to warrant immediate attention. Thirty-seven persons were found to have sugar diabetes, and twenty-one had hypertension. Among eight persons, nine cancers were found; one case of active tuberculosis was discovered, and two persons were found to have had heart attacks which were previously unrecognized.

DIFFERENCES BETWEEN THE WORLD MEDICAL ASSOCIATION AND THE WORLD HEALTH ORGANIZATION

Many physicians are not clearly aware of the distinctions between The World Medical Association (WMA) and the World Health Organization (WHO). There is also confusion as to the distinction between the United States Committee of WMA and the Citizens Committee for the WHO. Since WHO is to hold its "World Health Assembly" in the U.S.A. this spring, it would be desirable to have a clear understanding of these two organizations before this meeting.

The AMA is a member of WMA, and the AMA House of Delegates last June strongly urged every member of the AMA to join the U. S. Committee of WMA.

The World Medical Association

1. WMA is an organization of national medical associations. The unit of membership is the most representative national medical association in each country. It is completely non-governmental. It is not part of the U. N. It is a voluntary organization.

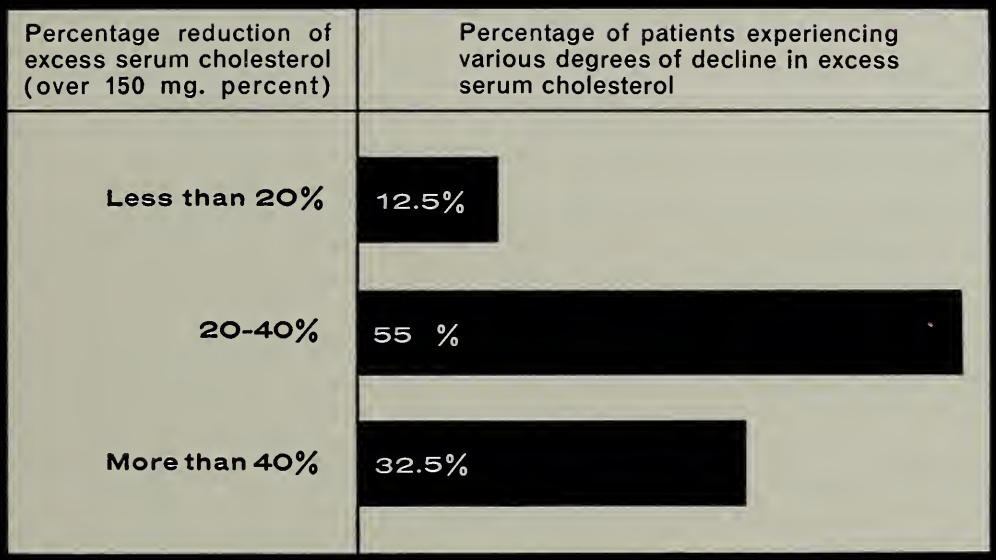
2. WMA represents the practicing medical profession.

3. WMA was organized in 1947 by AMA representatives and Western European medical leaders. Pur-

(Continued on Page 670)

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QUALITY / RESEARCH / INTEGRITY



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'Cytellin' provides the most rational and practical therapy available. Without any dietary adjustments, it lowers elevated serum cholesterol concentrations in most patients.

In a number of studies, every patient who co-operated obtained good results from 'Cytellin' therapy. On the average, a 34 percent reduction of excess serum cholesterol (over 150 mg. percent) has been experienced.

In addition to lowering hypercholesteremia, 'Cytellin' has been reported to effect reductions in C/P ratio, S_f10-100 and S_f12-400 lipoproteins, "atherogenic index," beta lipoproteins, and total lipids.

May we send more complete information and bibliography?

*'Cytellin' (Sitosterols, Lilly)

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WMA AND WHO DIFFERENCES

(Continued from Page 668)

pose was to exchange medical knowledge, to protect the freedom of medicine, and promote world peace.

4. Each member association sends two delegates, two alternate delegates and observers to the General Assemblies—the supreme policy making body of WMA.

5. The executive body of WMA is the Council. This meets twice a year and comprises eleven members elected from the Assembly and the President, President-Elect and Treasurer.

6. WMA is supportd by members' dues and contributions and the annual budget is about $165,000.

7. American physicians and allied corporations interested in the work of WMA are organized as the United States Committee of The World Medical Association.

The World Health Organization

1. WHO is an intergovernmental health agency. The members are the governments that accept the nine principles upon which WHO is founded.

2. WHO represents governments in their public health and medical activities.

3. WHO is the result of proposal of U. N. in 1945 to create a specialized agency to deal with all matters related to health on a world-wide scale.

4. Each member government sends three delegates, chosen preferably from the national health administration of the government, to the annual World Health Assembly.

5. The Executive Board of WHO is the executive body and consists of eighteen members elected to represent eighteen member governments.

6. WHO is supported by dues allocated by the U. N. scale and the budget for 1958 is $13,000,000.

7. American citizens interested in the work of WHO are organized as the Citizens' Committee for the World Health Organization.

The World Medical Association membership gives you:

1. Friends all over the world.

2. The privilege of attending Annual Assemblies of WMA as an Official Observer for the U. S. Committee.

3. Introductions to professional leaders and medical institutions, wherever you may travel abroad.

4. Opportunities to participate in many programs for protection of the doctor's status in peace and war.

5. Aid and advice in travel arrangements for attendance at medical meetings abroad.

6. The *World Medical Journal,* and other newsletters and publications of WMA.

7. A membership certificate for display and a membership card.

Dr. Louis H. Bauer, Secretary-Treasurer
U. S. Committee, Inc.. World Medical Association
10 Columbus Circle, New York 19, New York

I desire to become an individual member of The World Medical Association, United States Committee. Inc., and enclose check for $.....my subscription as a:

.....Member—$10.00 a year
.....Patron Member—$100 or more per year
.....Life Member—$250 (no further assessments)

Signature

Address

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(Contributions are deductible for income tax purposes)

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of March 18, 1958

- **Michigan Association of Professions.**—Another "First" for Michigan is being created: an association of the professions of medicine, law, engineering and architecture. Continued organizational activity of MAP was authorized and monthly progress reports are to be presented to The Council and its Executive Committee.

- **Site for New MSMS Building.**—Preliminary purchase agreement for a site on Saginaw Street (M 78) and Abbott Road in East Lansing was amended, upon recommendation of Legal Counsel Lester P. Dodd, and the President, Secretary, and Chairman of The Council were authorized to sign this agreement with Green Realty Company of Lansing.

 Contract with the architect (Yamasaki, Leinweber & Associates) also was authorized to be signed by the President and Secretary.

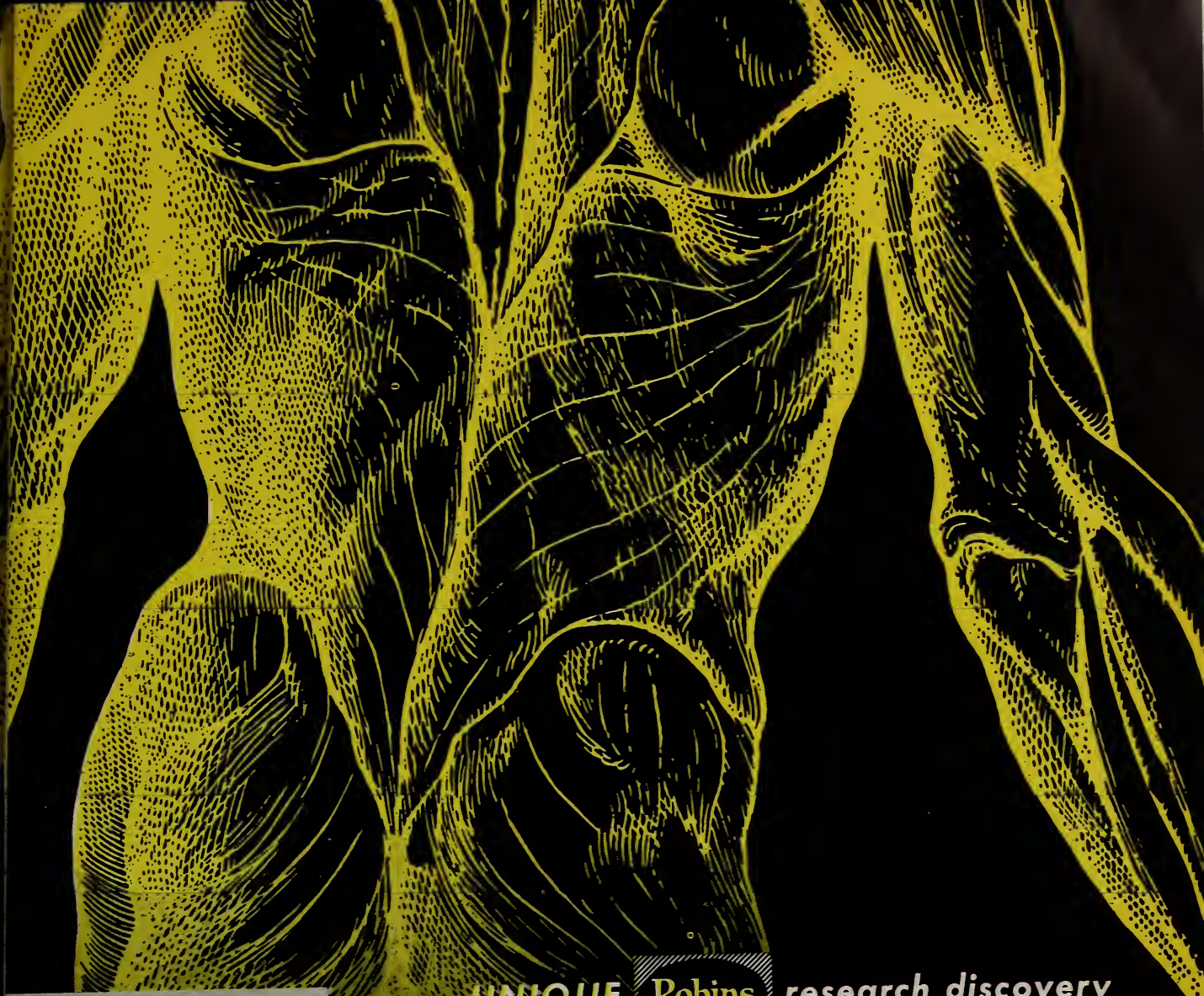
- **Michigan Hospital Service Progress Report.**—Brooker L. Masters, M.D., Medical Director of MHS, outlined problems facing Blue Cross, and urged maximum co-operation between medical hospitals of Michigan and doctors of medicine.

- **Monthly Financial Reports** were studied and approved; bills payable were approved, and payment was authorized.

- **A Special Membership Form,** to be used in the MSMS House of Delegates when presenting nominations for Life, Retired, Associate, and other, memberships, was presented by Speaker K. H. Johnson, M.D., and approved.

- **Appointments.**—John R. Rodger, M.D., Bellaire, was authorized to attend as MSMS representative the Regional Traffic Safety Conference in Chicago April 1-2; D. W. Heubner, M.D., Hastings, was appointed a member of the MSMS Legislative Committee; E. G. Kiehler, M.D., Lapeer, was appointed a member of the MSMS Public Relations Committee; Clifford L. House, M.D., Lapeer, was appointed a member of the MSMS Rheumatic Fever Control Committee; Otto O. Beck, M.D., Birmingham, W. B. Harm, M.D., Detroit, and J. W. Logie, M.D., Grand Rapids, were nominated by MSMS to fill vacancies on the Board of Trustees of Michigan Hospital Service (Blue Cross); L. Fernald Foster, M.D., Detroit, and B. M. Harris, M.D., Ypsilanti, were reappointed as MSMS consultants to the University of Michigan Study Group on Blue Cross-Blue Shield; C. A. Behney, M.D., was appointed MSMS representative to AMA Conference on Perinatal Mortality, Chicago, March 23; Max

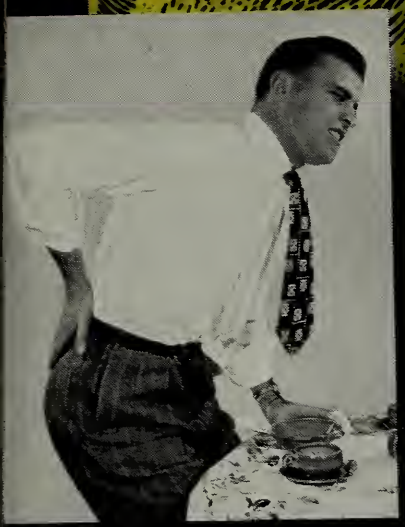
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ROBAXIN—a completely new chemical formulation—provides sustained relaxation of skeletal muscle spasm, without impairment of muscle strength or normal neuromuscular function . . . and with essential freedom from adverse side effects. Beneficial in 94.4% of cases tested.

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Supply:
Tablets, 0.5 Gm., bottles of 50.

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Ethical Pharmaceuticals of Merit since 1878

Important Announcement of Arteriosclerosis Treatment

GEROT PHARMACEUTIKA, owners of United States Letters Patent #2-776-973 issued January 1957 to Gerhard Gergely of Vienna, Austria, have licensed MEYER AND COMPANY of Detroit, Michigan, to synthesize and market 3, 7-dimethyl-xanthine double salt in the United States of America.

3, 7-dimethyl-xanthine double salt of oleic acid and magnesium, a stable compound marketed in Austria since 1950 under the name "Perskleran" and used in the treatment of ARTERIOSCLEROSIS is being marketed by MEYER AND COMPANY under the trade name of "Athemol."

The product is now available in tablet form.

Literature and clinical samples are available on request.

MEYER AND COMPANY

Pharmaceutical Manufacturers

16361 Mack Ave.

Detroit 24, Michigan

HIGHLIGHTS OF THE COUNCIL

(Continued from Page 670)

K. Newman, M.D., Detroit, and J. W. Rae, M.D., Ann Arbor, appointed MSMS representatives on Michigan Welfare League Committee on Rehabilitation Services; G. B. Saltonstall, M.D., Charlevoix, appointed Chairman of Committee on Committees, with George W. Slagle, M.D., Battle Creek, as a member thereof.

- **Committee Reports.**—The following reports of MSMS and Council committees were given consideration: (1) Committee on Prevention of Highway Accidents with Chairman John R. Rodger, M.D., Bellaire, and Dr. C. W. Muehlberger of the State Health Department Laboratory present; (2) Ad Hoc Committee on Medicare, minutes of February 20; (3) Mental Health Committee, January 30; (4) Maternal Health Committee, February 6; (5) Rheumatic Fever Control Committee, February 12; (6) Committee on Blue Cross Payments for Services of Pathologists, February 12; (7) Child Welfare Committee, February 13; (8) Study of Insurance Programs for MSMS Members, February 26; (9) Tuberculosis Control Committee, March 5; (10) National Defense Committee, March 12; (11) Venereal Disease Control Committee, March 13; (12) Medical Care Insurance Committee, meeting of March 1-2.
- **Legal Counsel Dodd's Monthly Report** included opinions on question of practitioners authorized to serve in county tuberculosis hospitals; re patient signing release form in regard to hospital chart; and on the question of payment for EKG's to laboratory.
- **Michigan Clinical Institute.**—A vote of thanks was extended to all who helped make this March 19-21 meeting in Detroit a great success, with a total registration of 2,886.
- **Public Relations Counsel Monthly Report** included (a) *Analysis of current legislation in the Michigan Legislature;* (b) *Ambulance Driver Training.*—Action by the 1957 MSMS House of Delegates had been referred to the ambulance section of the Michigan Funeral Directors Association which shortly will incorporate in its public relations section an educational program for ambulance drivers and assistants; further an article on ambulance driver training will appear shortly in *The Michigan Funeral Director,* the house organ of the MFDA; (c) *Authority to reprint 10,000 copies of "In Planning Your Career,"* a very popular brochure of the Michigan State Medical Society, was given; (d) *"Education in Medicine and Nursing in Michigan"* is the title of Staff Study No. 3 under the Survey of Higher Education in Michigan, carried out by the Michigan Legislative Study Commission on Higher Education in which MSMS co-operated.

Say you saw it in the Journal of the Michigan State Medical Society


insulin: 40-
"Most likely candidate
for ORINASE"
now more than
250,000 diabetics enjoy
oral therapy
ORINASE*
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- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10 cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

AMEF CHAIRMAN STATES CASE FOR PHYSICIAN SUPPORT

Every physician earning his livelihood due to the possession of a medical degree, owes an incalculable and never ending debt to his medical school. Increased costs of operation of our eighty-five medical schools are surpassing the amount obtained through taxes and endowments.

It is estimated that over two hundred million dollars are required for operating expenses each year. So far, the AMEF has only been able to raise and contribute one-half of one per cent of this amount.

The State of Michigan with approximately 6,000 physicians contributed less than ten thousand dollars last year, or only 1/100th of the million raised. This represents approximately one-and-a-half dollars for each doctor in the state, whereas $10 should be the absolute minimum. Nine states have solved this problem by an increase in state dues ranging from $5 to $20. Even a $10 levy in Michigan would produce $60,000, or over six times what is now contributed.

Only 44,000 doctors participated last year. If one hundred thousand doctors contributed $100 each, ten million needed dollars would be raised. We can rest assured if this money is not contributed by doctors, our Federal Government will allocate the necessary funds and, inevitably, Federal control over our medical schools will be increased.

The AMEF provides the mechanism through which individual members of the medical profession can shoulder their share of the support of our medical education system. The AMA underwrites all costs of promotion and administration of the Foundation. Thus, AMEF is one of the few organizations raising money where the entire income goes to the cause for which contributions are given.

Doctors have felt generally that the voluntary method of giving should be preserved. Recent experience in Wayne County during our Building Fund Drive, indicates only about 50 per cent of the membership will contribute adequately on a voluntary basis.

If our medical schools are to preserve some semblance of freedom from Federal control, the physicians of America must drastically increase their contributions to the AMEF. All physicians of Michigan should, in their own best interest, make as an absolute minimum a $10 contribution to this fund. Checks should be made payable to the AMEF and mailed to 535 North Dearborn Street, Chicago, Illinois. A physician may specifically earmark his contribution for the medical school of his choice.

Any amount you give is tax deductible. Make a contribution now toward the debt you can never fully repay.

—F. P. Rhoades, M.D.
AMEF Chairman for Michigan

Say you saw it in the Journal of the Michigan State Medical Society

TO REMEMBER ABOUT

Tetrex®

THE ORIGINAL TETRACYCLINE PHOSPHATE COMPLEX

U.S. PAT. NO. 2,791,609

1 Tetrex requires no "activating additive"

— it is purely tetracycline phosphate complex, with an inherent, chemically unique property of being rapidly and efficiently absorbed.

Each Tetrex Capsule contains:

Active ingredient: TETRACYCLINE PHOSPHATE COMPLEX, 250 mg. (tetracycline HCl activity)

Excipient: Lactose q.s.

2 Tetrex produces "peak high" tetracycline serum levels

— over 5000 human blood determinations after oral or intramuscular administration have consistently demonstrated fast, high, prolonged serum levels in patients of all ages.[3,5,6,7,8,9,10,11,12,13,14,15]

3 Tetrex has an impressive documented record of clinical effectiveness

— more than 170 million doses of tetracycline phosphate complex in 1957, with 5 published clinical reports by 9 investigators on 826 patients.[3,5,7,8,10] *Clinical evaluation:* "should probably be considered an improvement over, and an ultimate replacement for, the older tetracycline hydrochloride."[10]

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Clinical reports, both here and abroad, have been in agreement on the value of ultrasound in the following conditions:

Traumatic Injuries • Osteoarthritis • Periarthritis Fibrositis • Painful Neuroma • Rheumatoid Arthritis Bursitis • Radiculitis • Scars

A compilation of detailed clinical reports and ultrasound technics is available upon request from the Burdick Corporation.

The Burdick UT-1 Ultrasonic therapy unit is a tested result of pioneering in this field. It features a coupling signal that warns when contact is inadequate for effective treatment. The right-angled applicator and flexible cable add ease to operation. Burdick also has a smaller, portable machine — the UT-4. We will be happy to demonstrate both machines to you at your convenience.

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BLUE SHIELD—AMERICA'S UNIQUE CONTRIBUTION

In these days of instantaneous communication and over-night travel to the most remote places in the world, few nations can claim any social ideas or innovations as exclusively their own.

But the fact is that in the field of medical economics, American medicine has produced a program that is uniquely American. There is nothing comparable to Blue Shield in any other nation today.

Specifically, in no other country has the medical profession been able to develop a non-profit plan for medical care prepayment in which the participation of both patient and doctor is voluntary, there is complete freedom of choice for doctor and patient, services are paid for on a fee-for-service basis with the payments subject to medical control, there's no third party to regulate the doctor's practice, and no governmental agency has contributed one cent of direct subsidy to the program.

As a spokesman for the World Medical Association, the "international voice of organized medicine" representing 750,000 physicians in 53 nations of the "free world," said recently: "American physicians are singularly fortunate in having met their social and economic problems by voluntary action, turning back the threat of political domination."

Of course the plain fact is that although physicians have *met* their social and economic problems, they are still a long way from *solving* them. Through their own Blue Shield program, and with the help of the many commercial insurance companies that have followed the trails blazed by Blue Shield, physicians have made a strong and substantial beginning toward providing basic medical care security for all of their patients.

But there are big and difficult problems yet to be solved—in the care of long term and chronic illness, the aged, the rural populations, the indigent, etc.

Blue Shield offers us a unique instrument with which to tackle these problems. Whether or not it will yet suffice to save America from resorting to the state socialism and the compulsory solutions that most other countries have adopted will probably depend on the vision and energy and public spirit which every doctor brings to the support and guidance of his own Blue Shield Plan.

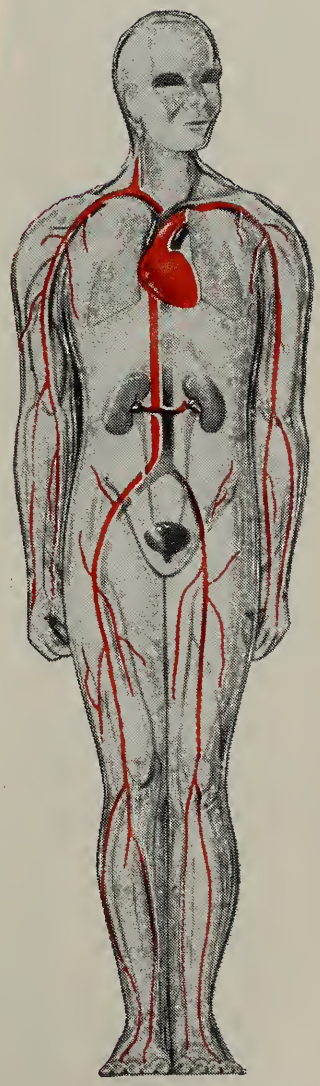
The death rate from cardiovascular disease, which now claims one out of every two American lives, varies from state to state, according to a new publication, *Patterns of Disease,* prepared by Parke, Davis & Company for the medical profession. The new England states rank first in heart disease death rates and the southwestern states are at the bottom of the list, according to the publication.

as simple

as 1-2-3

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HYPERTENSION



1 INITIATE 'DIURIL' THERAPY

'DIURIL' is given in a dosage range of from 250 mg. twice a day to 500 mg. three times a day.

2 ADJUST DOSAGE OF OTHER AGENTS

The dosage of other antihypertensive medication (reserpine, veratrum, hydralazine, etc.) is adjusted as indicated by patient response. If the patient is established on a ganglionic blocking agent (e.g., 'INVERSINE') this should be continued, but the total daily dose should be *immediately* reduced by 25 to 50 per cent. This will reduce the serious side effects often observed with ganglionic blockade.

3 ADJUST DOSAGE OF ALL MEDICATION

The patient must be frequently observed and careful adjustment of all agents should be made to determine optimal maintenance dosage.

BENEFITS:

- improves and simplifies the management of hypertension
- markedly enhances the effects of antihypertensive agents
- reduces dosage requirements for other antihypertensive agents—often below the level of distressing side effects
- smooths out blood pressure fluctuations

INDICATIONS: management of hypertension

Smooth, more trouble-free management of hypertension with 'DIURIL'

AMA Washington Letter

THE MONTH IN WASHINGTON

The recession continues to influence the course of much legislation, as Congress points toward the windup of its session. Even in the health fields, bills that promise in one way or another to alleviate unemployment appear to have priority. At the same time, federal departments are favoring construction grants to projects that can be started without much delay.

In legislation, here are some of the developments:

1. Liberalizations in unemployment compensation and in social security are receiving constant attention on Capitol Hill. At this writing, the bill to extend the period for unemployment compensation payments is making progress. There is the possibility also that it will make participation mandatory for all employers.

Prominent among proposed changes in the social security program itself is the Forand bill for free hospitalization and in-hospital medical care and surgery for persons entitled to social security benefits. It is being pushed by the AFL-CIO and by some liberal Democrats, and opposed by the American Medical Association and a growing group of other organizations. The opposition is convinced that the Forand bill is unnecessary, that it would be far more costly than anticipated, and that it would point the way to a broad national medical care plan for all persons covered by social security.

2. A controversial bill to vastly increase money available for grants for community facilities—waste plants, hospitals, state medical schools included—is active in Congress. One proposal is to vote a billion dollars, to be lent out (at about 3½% interest for 50 years) to communities. The objective here, as in many other measures, is to put people to work on construction projects.

Federal agencies have evolved a number of schemes to get U.S. dollars into circulation faster, and are attempting to work out others. In each case described below, no additional appropriation is involved; money is shifted from a project that is getting a slow start to one that is about ready to begin construction. Also, all totals given represent amounts to be spent by the sponsors as well as the federal government. Here are arrangements already made:

1. In January, the Hill-Burton hospital construction program called for U.S. grants to start buildings valued at $381 million; this figure has been stepped up to $405 million by July 1.

2. Between January and July 1, the original plan was to allocate enough money to start $120 million in construction for health research plants. This has been increased to $182 million.

3. Before the recession became so prominent an issue, the plan was to grant enough U.S. money to start construction of $170 million in sewage plants. Under pressure, the total has been increased to $215 million.

In most cases, when a project is delayed and thus loses its allocation, the grant is re-scheduled for next fiscal year.

* * *

American Medical Association is one of the four sponsors of a new Joint Council to Improve the Health Care of the Aged. Others are American Dental Association, American Hospital Association and American Nursing Homes Association.

The council already has authorized research in a number of directions to (a) analyze the health needs of the aged, (b) appraise available health resources for them, and (c) develop the best possible health care for them, regardless of their economic status.

Effects of this united front action should be felt when Congress takes up the Forand bill and other legislation pointed toward relief for the aged.

* * *

American Medical Association is asking Congress to strengthen the Civil Aeronautics Administration's medical department so it can properly supervise fliers' physical examinations and advise on other aviation medical matters. AMA also is recommending that an office of civil air surgeon and a medical research laboratory be established within CAA.

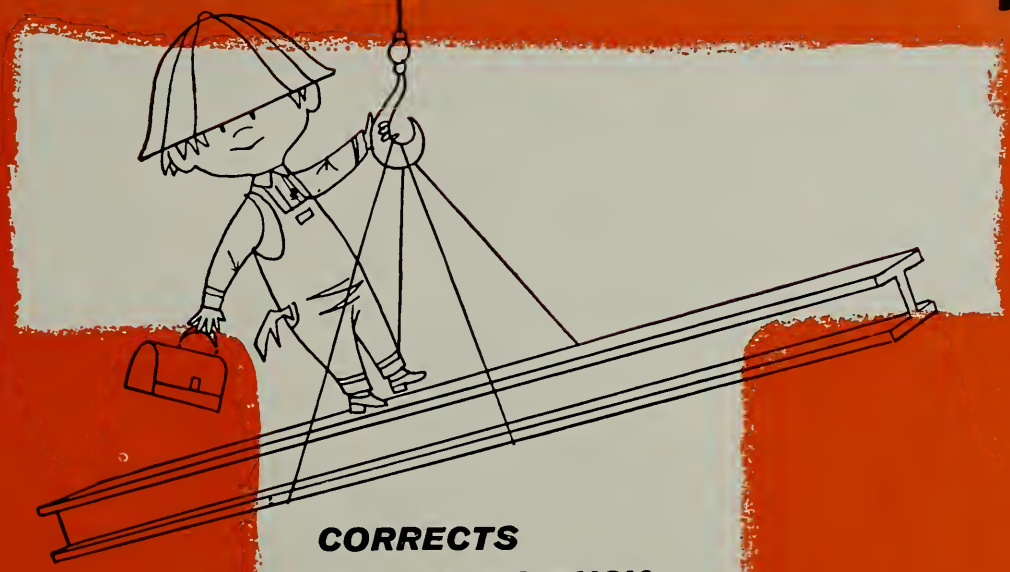
Congress has under consideration several plans for reorganizing the Defense Department, two of which would result in elimination of the office of Assistant Secretary for Health and Medical matters.

Andrew Biemiller, top legislative man for the AFL-CIO, told a recent delegation just returned from visiting Capitol Hill: "Congressmen are falling all over themselves in wanting to do something in the recession. I think we can cash in on this."

Medicare is working up a new claim form that will have a check-list of common errors on the back; this is intended to eliminate much correspondence now necessary when the physician makes an error on the form.

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AMA News Notes

TWO CIVIL DEFENSE PROGRAMS SCHEDULED IN SAN FRANCISCO

Two medical civil defense meetings will be held in San Francisco immediately preceding the American Medical Association's 107th Annual Meeting. On June 19-20, the 12th Naval District will sponsor a symposium on "Medical Problems of Modern Warfare and Civil Defense" at the U.S. Naval Radiological Defense Laboratory, and on June 21 the AMA's Council on National Defense will sponsor its 6th Annual National Medical Civil Defense Conference in the Sheraton-Palace Hotel. Dr. David B. Allman, AMA president, and Frank W. Barton, secretary, AMA Council on National Defense, will speak at the naval symposium on the plan and activities of organized medicine for medical preparedness in disasters or in the event of all-out war.

Dr. Gunnar Gundersen, AMA president-elect, will welcome participants to the AMA's civil defense meeting on June 21. The current federal civil defense program, including the national plan for mobilization of resources (personnel, facilities, supplies) will be outlined during the morning session by officials of federal governmental agencies involved. Also scheduled for the morning session will be a discussion of the threat and impact of newer weapons and delivery systems by an outstanding military planner, and a report on the legislative program now pending before congress for a national survival plan by the Hon. Chet Holifield, U.S. congressman, 19th district of California.

During the afternoon, the Surgeons-General of the Army, Navy, Air Force and Public Health Service will discuss the civil defense role and responsibilities of civilian physicians. Two other subjects to be covered include the radioactive fall-out problem and the feasibility of a national shelter program.

All physicians interested in civil defense planning are urged to attend these two worthwhile meetings.

NEW EXHIBITS FOR THE PUBLIC

The AMA Bureau of Exhibits announces that a number of new exhibits will be ready for showings by local medical societies at fairs, home shows, school and similar public gatherings this spring and summer.

You Can Reduce—shows foods to fill up on and stay away from; gives visitor an opportunity to check his weight on the scales; presents answers to pertinent questions on reducing; pictures 25 different foods and the number of calories in the servings shown.

Food and Nutrition Quackery—developed in co-operation with U.S. Food and Drug Administration, Post Office Department's fraud division, and National Better Business Bureau to point up the major false claims made in the promotion of food products and nutrition ideas; exposes house-to-house peddlers of "food supplements," nutrition and health lecturers and so-called "experts;" displays various reducing aids on a roulette wheel; features special "buyer beware" section explaining how public can recognize food quacks and their claims.

Breathing—presents the anatomy of body's breathing system and air passages and location of lungs in the body; viewer can observe how lungs expand and contract and the movement of the rib cage.

Glands—shows the location and functions of various glands in the body; presents three-dimensional models of glands.

Poisoning of Children—demonstrates dangers of common household products and depicts those products that are leading causes of poisonings in children at home.

Health Appraisal of the School Child—highlights principal health appraisal procedures, such as teacher observation, screening procedures, dental and medical examinations and the follow-through.

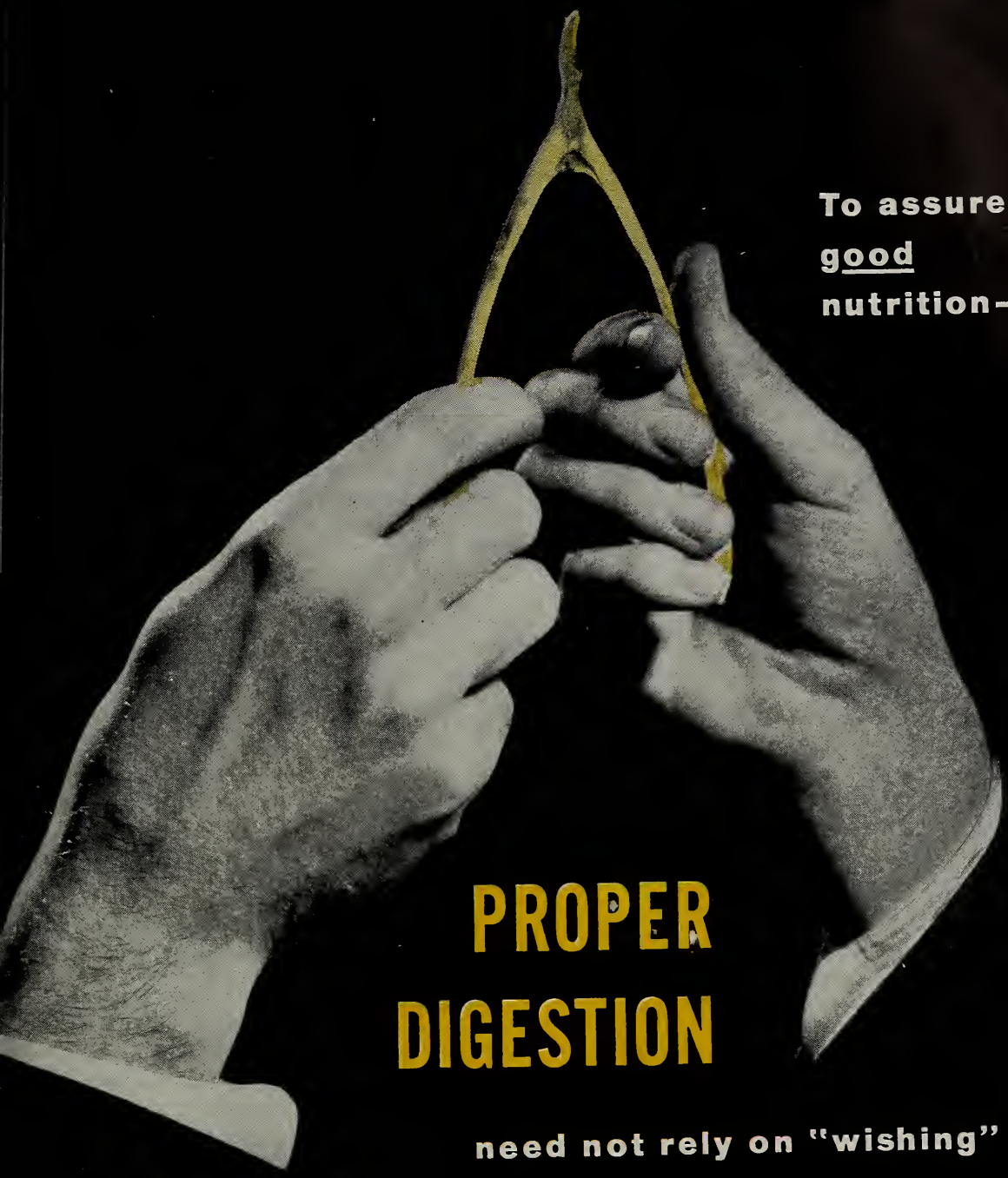
PROTECTING THE HEALTH OF THE HIGH SCHOOL ATHLETE

Curbing the number of unnecessary high school sports injuries and deaths is a community challenge. Physicians can provide the needed local leadership by working with school officials, coaches association, parent-teacher groups and dental society to develop adequate school health and safety programs for sports participants. One practical method—discussed in a new American Medical Association pamphlet—calls for the sponsoring of high school sports injury conferences. Purpose of these conferences is to instruct coaches, athletic directors and team physicians on the early recognition of injuries, appropriate first aid measures and the prompt referral of injured players for medical or dental care. Entitled "Protecting the Health of the High School Athlete," the booklet was prepared under the auspices of the AMA's Committee on Injury in Sports. Further information and copies of the booklet may be secured from the AMA's Bureau of Health Education.

PAMPHLET ON DRIVER FITNESS

Before taking the wheel, every driver should check to make sure that he's fit to drive. Under certain circumstances—outlined in a new American Medical Association pamphlet—a driver can be a dangerous hazard on the road. "Are You Fit to Drive?" urges drivers to contact their physicians if they are in doubt about their fitness. Prepared by the AMA's Committee on Medical Aspects of Automobile Injuries and Deaths in co-operation with the Center for Safety Education at New York University, the booklet contains information about those conditions that can adversely affect driving skills—emotional upsets, driver attitudes, sleepi-

(Continued on Page 686)



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PAMPHLET ON DRIVER FITNESS

(Continued from Page 684)

ness, medicines, faulty vision, certain nerve and heart disorders, diabetes, old age and drinking.

For distribution through physicians' offices, the booklet currently is available from the Association of Casualty and Surety Companies, 60 John Street, New York 38, N. Y. Price is $4.60 per 100 copies, regardless of quantity.

REFERRAL CENTERS FOR CHRONICALLY ILL SURVEYED

A survey of five information and referral centers for the chronically ill currently is being conducted by the AMA's Council on Medical Service. Located in Chicago, Cleveland, Milwaukee, San Francisco and Essex county, N. J., these centers operate as central clearing houses for information on existing facilities for the care of chronically ill in the community. Such centers usually maintain complete information on rates, eligibility, requirements and services offered by nursing and old-age homes, chronic institutions, social service agencies, rehabilitation facilities and other services, and often carry on research to evaluate unmet needs for care in the area.

The Council's report on these centers should be of interest to physicians concerned with chronically ill patients. Any information on similar centers in other communities will be welcomed by the Council.

DOCTORS' WIVES PLAN JUNE CONVENTION

The call of the west will be heeded by physicians' wives as they travel to San Francisco in June for the thirty-fifth annual convention of the Woman's Auxiliary to the American Medical Association at the Fairmont Hotel. National committee meetings and round table discussions will be held June 21-23 with formal opening of the convention slated for Tuesday morning, June 24. An interesting and varied program is being arranged by co-chairmen Mrs. Matthew N. Hosmer, San Rafael, and Mrs. Samuel R. Sherman, San Francisco, California.

Business sessions on Tuesday and Wednesday will be devoted to state and national committee reports and discussions on current projects. Tuesday's luncheon in honor of past presidents will feature guest speaker Mr. Richard H. McFeeley, principal of George School, Bucks county, Penna. Speaker at Wednesday's luncheon in honor of the president (Mrs. Paul C. Craig of Pennsylvania) and the president-elect (Mrs. E. Athur Underwood of Washington) will be Dr. David B. Allman, immediate past president of the AMA. At this session Mrs. Craig will present the Woman's Auxiliary contribution to the American Medical Education Foundation, and Dr. George F. Lull, AMEF president, will present AMEF awards to the auxiliaries.

Election and installation of national officers will be held Thursday morning with adjournment scheduled for noon.

One of the highlights of the convention will be the premiere showing of the new recruitment film, "Helping Hands for Julie," at 3 p.m. Wednesday. Produced by the AMA, the American Hospital Association and E. R. Squibb and Company, the film is designed to encourage young people on medical health careers. All Auxiliary members, their husbands and friends, career guidance counselors and members of allied medical groups are invited to attend this showing.

MEETING ON LABELING OF CHEMICALS

As part of an over-all program to prevent poisonings and to increase public awareness of the hazards of certain chemical products, the AMA's Committee on Toxicology has drafted a broad model law requiring precautionary labeling of hazardous substances in commercial, household and industrial chemicals. The bill is intended as a model for uniform laws to require the declaration of hazardous ingredients and warning statements on the label and in the accompanying literature of chemical products.

The first of two or more conferences with representatives of health departments, regulatory agencies, medical societies and allied health organizations to discuss this and other tentative legislation will be held May 9 at AMA headquarters, Chicago. The Conference on Labeling Hazardous Substances will focus attention on the nature of the general problem as seen by the public, the medical profession, regulatory officials and trade associations, and also will provide discussion on both local and federal labeling laws.

Newscopes—Reprints of a report of the AMA Committee on Medical Rating of Physical Impairment which appeared in the March 1 issue of the *Journal of the AMA* currently are available from the Council on Medical Service. The article calls attention to the substantial increase in consultative examinations being purchased with federal funds by state agencies administering the Old-Age and Survivors Insurance Disability program, lists purposes for which consultative examinations may be authorized and contains a roster of state medical consultants and reviewing physicians as listed by the Bureau of Old-Age and Survivors Insurance. . . . AMA Bureau of Health Education announces that *"Health Magazine of the Air"* was distributed to 450 radio stations in March. Monthly spot announcements to be narrated by Douglas Fairbanks, Jr. in April and Ralph Bellamy in May. . . . The ninth annual *"Reviews of Medical Motion Pictures,"* containing all film reviews published in the *Journal of the AMA* during 1957, now is available from the AMA's Film Library.

PRESIDENT ISSUES ORDER ON DRAFTING OF DOCTORS

The President has signed an executive order whose tardiness has no practical significance. It simply authorizes Defense Department to activate Reserve doctors who are subject to Selective Service call-up. This is a routine step based on Congressional amendment of the draft laws last June. As long as armed forces continue to get sufficient medical and dental volunteers to fill their needs, it won't be necessary for The Secretary of Defense to invoke this delegation of power.

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of the Michigan State Medical Society
Issued Monthly Under the Direction of the Council
VOLUME 57 May, 1958 NUMBER 5

Active Immunization Against Tuberculosis

By W. J. Nungester, M.D.
Ann Arbor, Michigan

DURING the past seventy-five years, since the discovery by Koch of the cause of tuberculosis, many attempts have been made to increase man's resistance to this infectious disease by active immunization with various types of vaccines. Many experiments have been made in animals with the hope of developing an effective vaccine. Studies on man and animals dealing with the pathogenesis of the disease have been both instructive and confusing in terms of indicating a possibility for successful active immunization. In early studies, Koch demonstrated that an animal with an existing lesion reacted quite differently to reinoculation of virulent tubercle bacilli than did a normal animal. The infected animal rejected the second inoculation of virulent organisms (Koch phenomenon). Yet others have concluded that the sensitization following tubercular infection lowers resistance to the microorganism.

Soon after the discovery of the tubercle bacillus, Koch made the major mistake of his life by claiming in 1890 that he had produced a material (Koch's Old Tuberculin) which could be used to prevent tuberculosis and also to cure it. Within a few years, these findings were discredited. Others through the years have made claims of having prepared an effective immunizing antigen or vaccine against tuberculosis. These preparations have consisted of killed tubercle bacilli, living attenuated (avirulent) organisms or chemical fractions of the tubercle bacillus. The one vaccine that has received by far the most intensive study and trials in man is the B.C.G. living vaccine of Calmette.

The B.C.G. vaccine is prepared from a bovine culture of the tubercle bacillus first isolated in 1902 and studied for a number of years by Calmette and Guérin. The organism finally lost its virulence for animals and was then studied for its immunizing properties. Although the early immunizing studies of Calmette and Guérin in animals were limited, they and others were convinced that trials in humans should be made. The B.C.G. vaccine (bacilli Calmette-Guérin) was fed to infants in 1922 by Weill-Halle and Turpin. No adverse effects were reported. The indications of an increased resistance to tuberculosis were heralded by Calmette with considerable enthusiasm. Others were more critical of the findings. The children so "immunized" by oral administration did not develop sensitivity to tuberculin but there was more than a little skepticism as to the value of the vaccine in preventing tuberculosis. Soon the peroral 'Calmettization" was given up in all but those areas dominated by French Medicine.

After a lapse of time, interest in the B.C.G. vaccine was renewed particularly by the Scandinavians. They chose to administer the vaccine to tuberculin negative patients by intracutaneous injections. Their results have been much more acceptable in terms of showing a real immunizing

Dr. Nungester is Professor of Bacteriology and Chairman of the Department of Bacteriology, University of Michigan Medical School.

value for the B.C.G. vaccine. About 5 million patients have been given this vaccine in Norway, Sweden and Denmark and the results carefully followed. Smaller but equally well controlled studies have been made in England using the intracutaneous route of inoculation. Large scale use of the vaccine has been made in recent years under the supervision of the World Health Organization. In all, probably 50 million persons have received the vaccine to date. The overall results of this experience can be discussed with some certainty.

The safety of any vaccine and certainly a living vaccine is of prime concern to the physician. No vaccine is perfectly safe. Post vaccinal complications have been observed in the use of vaccines against small pox, pertussis, rabies, poliomyelitis, et cetera. In the large experience of the Scandinavian physicians, the incidence of progressive tuberculosis due to the B.C.G. antigen is about 1 in one million of those vaccinated, or about one tenth of the incidence of post vaccinial encephalitis observed in New York City several years ago following the wholesale vaccination of about 3 million of the population against small pox. The treatment of the rare case of tuberculosis arising from B.C.G. vaccination is much more satisfactory than that for a central nervous system disease such as post-vaccinal encephalitis.

The degree of protection afforded by B.C.G. vaccination is dependent on several factors, namely: (a) the strain of B.C.G. organism used, (b) the viability of the preparation when used, (c) the technique used in applying the vaccine, (d) the degree of subsequent exposure of the patient and (e) the patient's natural resistance to tuberculosis. Rosenthal[1], in a study made in Chicago, vaccinated new-born children from homes with and without known tuberculous contacts, as well as adults, such as medical students. In the infant group, from tuberculous households, after fifteen years there was a reduction of 75 per cent in morbidity and 89 per cent in mortality in the vaccinated over the nonvaccinated group. In an earlier report by Stein and Aronson[2] reporting on a seventeen-year follow-up involving 2,990 Indians, the morbidity was 4.1 per cent in the vaccinated group and 16.4 per cent in the unvaccinated. The first report of the English Medical Research Council Committee[3] is particularly convincing and instructive. In the group of adolescents vaccinated with B.C.G., the annual incidence of clinical tuberculosis was 0.37 per 1,000. In the unvaccinated control group, the annual incidence of disease was 1.94 per 1,000. The few cases of tuberculous meningitis and miliary tuberculosis diagnosed were all in the unvaccinated group. Similar findings from the Scandinavian countries, support the value of B.C.G. in reducing the morbidity and particularly the mortality from tuberculosis.

A third consideration of concern to the physician is the fact that following B.C.G. vaccination, the patient reacts to tuberculin. The conversion to a positive reaction persisted for four years in 92 per cent of one group vaccinated as infants by Rosenthal. In general, it may be stated that adults receiving this vaccine will remain tuberculin positive for one and one-half to two years. This induced conversion may complicate the diagnostic problem of the physician in detecting early cases of the disease. Public Health Officials in this country give considerable weight to this aspect of B.C.G. immunization. However, in patients vaccinated by the multiple puncture technique, about fifty times as much tuberculin (250 T.U.) is required to elicit a reaction as would be the case in early tuberculous disease.

Investigations are proceeding in various laboratories to develop immunizing agents that may be superior to the B.C.G. vaccine in one or all of the following respects: (a) a non living vaccine, (b) one that will create a greater resistance to the disease in the patient and (c) one that will not sensitize the patient to tuberculin.

The advent of the "wonder" drugs brought high hopes to those concerned with the treatment of infectious diseases. Unfortunately, the microbes held an ace card that was not anticipated, namely, their ability to mutate and give rise to drug resistant forms. This has become a particularly serious problem with the staphylococci. At present, chemotherapy is losing ground to the staphylococci and the problem has become very serious. There is no reason to doubt that trouble of the same sort is going to confront the medical profession in the treatment of tuberculosis. Even as the disease is now treated, it is estimated that in 1976 there will be 36,000 new cases in the United States and a continuing load of 180,000 active cases to be treated. Hence, the need for developing a satisfactory vaccine for the prevention of this disease.

In reviewing briefly some of the current efforts to develop a more satisfactory vaccine for the prevention of tuberculosis, it may be helpful to restate certain facts and ideas that guided the author in setting up a program to develop a better immunizing antigen about twelve years ago. These were published in 1953.[4]

1. Virulent bacteria differ antigenically from avirulent organisms and therefore, should be used as the starting material in preparing a vaccine. (B.C.G. is essentially avirulent and of bovine, not human origin.)

2. The chemical substance or complex associated with virulence, the "virulence factor," must be preserved with a minimal change in chemical structure and must be present in the immunizing antigen.

3. There may be present in the organism, as it grows in the patient or *in vitro,* a factor which interferes with the immunizing or resistance mechanisms of the host.

4. The "virulence factor," probably present in the less virulent B.C.G. only to a limited degree, would be most effective as an immunizing antigen if freed of the "resistance-lowering" or "immunity-poisoning factor," if such exists.

Killed suspensions of tubercle bacilli have received limited attention as immunizing agents by many investigators. The order of immunity developed has never been impressive probably because of the large challenge dose used to demonstrate immunity and possibly because of the effect of heat or strong chemicals on the "immunizing antigen."

During the past ten years, Sarber et al.[5] have developed procedures for killing virulent strains of the human tubercle bacillus by ultraviolet irradiation. Vaccines so prepared to have been found to have an immunizing effect on guinea pigs equal to that of several B.C.G. preparations used as controls as shown by challenge with virulent tubercle bacilli. This type of preparation has been recently used[6] in 100 infants in South America. No unfavorable reactions were reported. Dubos et al.[7] have more recently shown some value for killed tubecle bacilli as immunizing agents. There can be little question that some increased resistance to tuberculosis is developed in animals injected with killed tubercle bacilli. This order of immunity may approach or be equal to that developed by B.C.G. Such vaccines are nonliving and have the marked advantages of being more stable on storage and less subject to subtle mutations of the parent strain with resulting changes in immunizing properties. The very slight danger (one in a million) of developing progressive tuberculosis as the result of immunization with B.C.G. is also removed. Sensitization of the patient will develop as with B.C.G. To date, adequate trials in man have not been made with the killed vaccines.

The ultimate aim of the modern immunologists is to isolate the "virulence factor" of pathogens with the hope of using this chemical fraction as an immunizing agent. The injection of such a purified antigen or "vaccine" into a patient does not subject him to trauma from the non-immunizing componets of the microorganisms. These componets may result in undesirable local reactions, sensitization or interference with the functioning of the immunity mechanisms of the host. The latter effect has been one that the author and his colleagues have sought during the past decade but with only inconclusive results. If such an effect is demonstrated, it might aid materially in explaining the poor immunological response of the patient to his own disease in contrast to the patient with pneumococcus pneumonia. Dubos and his colleagues, in work yet unpublished, have obtained evidence of an adverse effect of certain components of the tubercle bacillus on the defense mechanisms of the host.

Fractions of the tubercle bacillus have been examined in recent years for their immunizing properties. Choucroun,[8] Kropp and Foley,[9] Raffel,[10] Negri,[11] Smith, Grover and Nungester,[4] and Weiss and Dubos[12] have all reported that such fractions have immunizing properties. This approach holds much promise for the future. The results to date in animal studies indicate that certain of the fractions of the tubercle bacillus may immunize but not sensitize to tuberculin. If fractions could be obtained which had somewhat greater immunizing properties than those so far isolated, a highly practical vaccine would be available; one that was free of living organisms, and would not sensitize to tuberculin. Some of the substances, (polysaccharide complexes) so far studied have immunizing properties approaching those of B.C.G.

The tubercle bacillus is a rather complex chemi-

cal system in terms of its structure. From the early classical studies of Anderson and his colleagues, we know something of its complex chemistry. However, since the time of his investigations, two new chemical tools, column chromography and infra red spectrophotometry have been used by Smith, Randall and their colleagues,[13] in unraveling the finer chemical structure of various types and strains of the tubercle bacillus. In this work, continuing attention is given to the immunizing properties of the various fractions which they isolate. This co-operate work, first started when Dr. Smith was in the Department of Bacteriology at the University of Michigan, has continued, with the biological work being done by Dr. Smith at the University of Wisconsin. Some of the chemical and the physical studies are being supervised by Dr. Harrison Randall, Professor Emeritus of Physics at the University of Michigan. It is hoped that this work will contribute to the development of a non-living but effective immunization antigen.

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MORE MEDICAL STUDENTS TO START AT WAYNE

With legislative approval, Wayne State University's Board of Governors has voted to increase the College of Medicine enrollment from 75 to 125 freshmen students, beginning in September, 1958.

Funds to cover expansion will come from the State's general appropriation to the University of $9,718,900. Estimated cost for the additional students is $285,000 for the first year.

By 1962, the total medical school enrollment is expected to be 500 as compared to the present 300.

The University's action climaxed a concerted two-year effort by a group of lawmakers and health officials to head off a growing shortage of doctors in Michigan.

From the beginning, all proposals indicated that expansion of Wayne's College of Medicine could be done practically and economically. This was substantiated by a special report to a legislative study committee on higher education by Dr. William T. Sanger, chancellor of the Medical College of Virginia.

The Sanger report said that Wayne's medical school should be expanded to accommodate 200 entering students a year before consideration is given to a third medical school in Michigan.

Some Developments in Relation to Pertussis Vaccination

By Pearl L. Kendrick, Sc.D.
Ann Arbor, Michigan

THE decline in death rates due to pertussis during the past decade has been of such magnitude that to explain it we need to identify some specific factors over and above those responsible for the general downward trend observed during the past fifty years. Whatever other contributory factors there may be, such as improved living conditions and better medical care, the sharp decline in mortality rates has accompanied a progressively wider application of immunization procedures demonstrated to be effective in controlled field trials. This is illustrated by the figures for cases and deaths due to whooping cough in Grand Rapids and Michigan, as noted recently by Eldering.[1] Deaths in Michigan from 1932-1956, by five-year periods numbered respectively, 732, 474, 286, 143, and 50; for the single years 1956 and 1957, there were seven deaths each. In Grand Rapids, for the same five-year periods, deaths numbered 10, 5, 4, none and none; and for the years 1956 1957, none. Eldering called attention to the percentagewise shift in the age group affected by whooping cough. In answering the question whether there has been a postponement of cases, age specific morbidity rates are needed. In the accompanying chart (Fig. 1), the data from 1928-1953 are charted as five-year moving means, by age group.

There has been a decline in the rate for all age groups under ten years; this decrease is greatest from ages one to four years, and thus produces a shift in the proportional (or percentage) age distribution. The morbidity rates in the age group over ten years are too low to present on this graph, but have shown no significant increase or decrease. In relation to the graph, it should be recalled that the early field studies in Grand Rapids and Kent County by Kendrick and Eldering[2] were reported in 1939; relatively widespread use of pertussis immunization in the community was achieved during the early 1940's.

Even against the encouraging background of demonstrated protective vaccination, and currently declining mortality, we cannot afford to forget that in the United States whooping cough

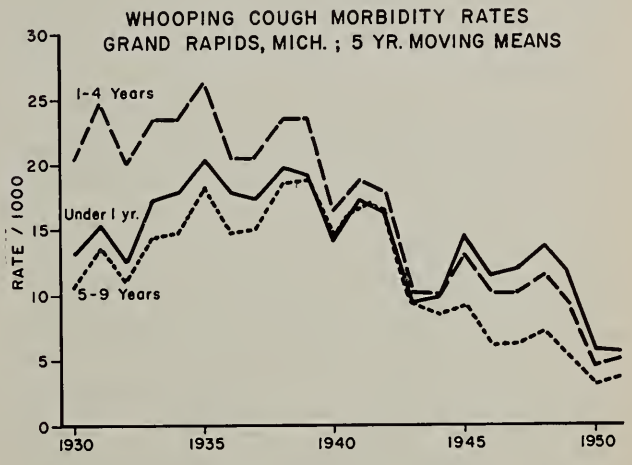


Fig. 1.

is still high on the list of communicable diseases of children from birth to fourteen years. For the period 1940 to 1948, it is pointed out by Gordon and Hood[3] that whooping cough killed almost three times as many infants under one year of age as measles, mumps, chicken pox, rubella, scarlet fever, diphtheria, poliomyelitis and meningitis all together; also the effect of the disease on the health, growth and resistance of children can be very damaging; and it is responsible for more lost school days per case than any other acute disease. Whooping cough therefore is not a disease to be considered lightly; and problems of immunization need continuing consideration. In 1944, Felton and Willard[4] made a comprehensive historical review of pertussis vaccination and discussed the current status; at the same time the Council of the American Medical Association accepted certain designated types of vaccine. Since then the situation has changed in a number of important respects. Convincing support of the efficacy of *Bordetella** *pertussis* vaccines was added to the

Dr. Kendrick is Resident Lecturer in Epidemiology, Department of Epidemiology, Public Health Laboratory Practice, University of Michigan School of Public Health.

**Bordetella pertussis* is now the accepted designation, replacing *Haemophilus pertussis.*

accumulating evidence, by the results of the well-designed, controlled field trials in England reported by the Medical Research Council[5] in 1951. Their findings clearly demonstrated that under the same experimental conditions pertussis vaccines could differ widely in their protective properties. In comparison with the other vaccines tested, two lots prepared by the Michigan Department of Health Laboratories and used for reference, gave a considerably greater degree of protection. The Michigan vaccine had been prepared according to the methods used successfully in the Grand Rapids studies. Subsequently, vaccines prepared in England by similar procedures were also highly protective.

In 1952, a conference was organized by the World Health Organization for critical consideration of diphtheria and pertussis immunization.[6] The main emphasis was on techniques of production and evaluation of immunizing agents. The conference recognized particularly the difficulties involved in defining methods of preparing pertussis vaccine that would ensure consistently good results, and pointed out the essential need for reliable potency tests; they considered that the intracerebral mouse-protection test offered promise, and that a vaccine which gave poor results in this test should not be issued for use. The work of the conference provided an impetus to efforts toward standardization.

Laboratory Potency Tests and Their Application

When the Council of the American Medical Association accepted pertussis vaccines[4] in 1944, they specified "prepared according to the method of Sauer or of Kendrick and Eldering or of Harrison and Bell." At that time there was no accepted potency test for a particular lot of vaccine; the best that could be done was to prepare a vaccine as nearly as possible like one that had provided specific protection of children in controlled field trials. Any improvements in method, any progress towards better vaccines and procedures for immunization, were dependent on the development of laboratory methods for evaluating efficacy. A field trial to study such suggested change, no matter how promising, was obviously out of the question. With the development of the intracerebral mouse protection test[7] it became possible to use potency as a basis for the release of each manufactured lot of vaccine; since 1948, after a trial period of approximately two years, all pertussis vaccines released for distribution by manufacturing laboratories in the U.S.A. have been required by the National Institutes of Health to pass a mouse protection test in comparison with a reference vaccine. Subsequently, a reference pertussis vaccine was designated by Great Britain; more recently, acceptance of an international standard based on comparative tests in laboratories of different countries, was an important step towards the improvement and standardization of pertussis vaccines on a world wide basis. In the Minimum Requirements of the National Institutes of Health for pertussis vaccines, potency now is expressed in terms of mouse protective units, rather than bacterial concentration; this latter being specified only as an upper limit, to avoid unnecessarily high content of foreign protein.

Mouse protection tests have provided a laboratory basis for evaluation of experimental procedures and modified types of vaccine. In the controlled field trials reported in 1956 by the Medical Research Council of Great Britain[8] the results were summarized for two series of controlled field trials in which fourteen pertussis vaccines were tested for their protective potency in 28,799 children and substantial protection demonstrated. One of the antigens had been prepared from cultures grown in Cohen-Wheeler's blood-free medium and had been shown to protect mice in laboratory potency tests. In this first controlled trial of such a vaccine, the protection of children was of the same order as with vaccines prepared from suspensions of culture cultivated on Bordet-Gengou medium; one of them, a reference Michigan vaccine. Of particular interest in this report was the comparison of eighteen vaccines, including several that had given varying results in earlier trials, for their efficacy in children and their potency in mouse protection tests. The positive correlation between field trial and laboratory results promotes confidence in accepting mouse protection as an indicator of probable efficacy of pertussis vaccines for human use.

Antigens Separated from Cultures of B. Pertussis

During the past decade or more, important investigations have been concerned with attempts to isolate the essential or protective component of pertussis cultures, thus eliminating what may be unneeded portions of the whole culture, and perhaps reducing non-specific local or systemic reactions. The "protective antigen" or PA of Pillemer[9]

and the non-cellular antigen described by Felton and Verwey[10] are examples. Both of these products protect mice against intracerebral infection with *B. pertussis,* and may be expected to protect children against pertussis if the practical problems concerned with their manufacture, administration and evaluation can be solved satisfactorily. Pillemer's antigen is under study in England, and preliminary results mentioned in a recent paper by Cockburn[11] suggest that it protects children as well as whole-culture antigens with which it is being compared. Although the Pillemer antigen had given good results in mouse protection tests, there was very little stimulation of agglutinins in mice, suggesting that the agglutinin-stimulating component may not be essential to protection. This experience illustrates the unforeseen problems that may arise from any change in the type of vaccine. With the whole-culture vaccine, agglutinin may well serve as an indicator of protective response whether or not the agglutinin itself is protective. If, however, it proves possible to isolate a protective antigen entirely free of agglutinin-stimulating substance for use as vaccine, it is apparent that a different indicator of protective response in the vaccinated child would be needed.

In a current trial of their non-cellular antigen, Felton and Verwey[10] have made a progress report on 197 injected children in comparison with a similar group injected with whole-culture vaccine and a non-immunized control group accumulated from the population. They found evidence of a satisfactory level of immunity and believed that the local and systemic reactions following injections of the non-cellular antigen were milder than following whole culture vaccine.

Use of Combined Multiple Antigens

Without question, most pertussis vaccine in use today in the United States is combined with diphtheria and tetanus toxoids (DPT). The question has arisen most naturally as to the effectiveness and practicability of other combinations. In particular, with the demonstration of the effectiveness of poliomyelitis vaccine by the evaluation study directed by Francis,[12] current interest has been directed towards the possibility of combining polio vaccine with DPT. For several years this problem has concerned the Committee on Multiple Antigens of the American Public Health Association. Preliminary experiments in animals by Kendrick and Brown,[13] together with continuing unpublished experiments, have uncovered no contraindications to the use of such a combination of antigens; and have demonstrated serological responses to the individual components.

A discussion of combined multiple antigens requires a consideration of the possibility of one antigen interfering with or "crowding out" the immune response to another in the mixture. The clearest demonstration of this phenomenon was made by Barr and Llewellyn-Jones[14]; when guinea pigs already immune to diphtheria were immunized with combined diphtheria and tetanus toxoids, the response to diphtheria was excellent but to tetanus, lower than in guinea pigs not immune to diphtheria. The relation of this "crowding out" effect to practical problems of specific immunization in humans is not now clear. That it may occur under certain particular conditions is suggested by Chen et al,[15] who observed a weaker response to the pertussis and tetanus components of DPT in the latently diphtheria-immune group than in the non-immune. Perhaps it should be pointed out that these investigators measured the pertussis response only on the basis of circulating agglutinin, not on protection.

An interesting effect of pertussis vaccine when mixed with diphtheria and tetanus toxoids is the enhancement of their potency; that is, pertussis vaccine behaves as an adjuvant. A mixture of plain diphtheria toxoid and pertussis vaccine has a potency comparable to the same toxoid, alum precipitated, or adsorbed to a mineral carrier; however, alum precipitated toxoid, in which the potency already has been increased, does not appear to be enhanced further by mixing with vaccine. As to any possible enhancement of the potency of viral antigens by mixing with pertussis vaccine, experimental data are at present insufficient to provide an answer; the advantage of such an effect if present is obvious.

If we attempt to take into consideration all available data on combined antigens, what appears to stand out is the accumulating evidence of successful experience in the use of such products. The advantages are so great that much effort can be afforded in studying their applications and defining their limitations. Should further research uncover certain problems, for example, if interference should be recognized as a real limitation under particular conditions, we may be confident that the experimental approach also will provide

an answer. For further discussions of the use of combined multiple antigens, and some of the implications, reference may be made, among others, to papers by Cockburn,[16] Sauer,[17] and Volk, Top and Bunney.[18]

Current Procedures for Immunization

An expression of the current opinion of practicing physicians and investigators on immunization procedures is to be found in the 1957 Report of the Committee on The Control of Infectious Diseases of the American Academy of Pediatrics.[19] The warning to read the instructions that accompany the product of any particular manufacturer is emphasized. These will make clear the volume and number of injections to contain the required number of mouse protective units per total human dose. It is important to keep in mind that dosage schedules are not static. Related perhaps to a change in the immunizing agent, perhaps in the light of newly discovered knowledge of individual immunity response, or perhaps on the basis of demonstrated changes in the immunity status of the community, modifications of procedure may be indicated. As one example of such a revision we need only recall the change from the early use of a one week interval between injections to the present longer interval of four weeks or more as dictated by experimental results.

It can be hoped that continued study will give a sounder basis for selection of the time and size of dose for the recall or "booster" injection. There is considerable evidence from laboratory data that after an adequate primary immunization, waning immunity can be recalled with a very small injection of specific antigen. In the early study of Kendrick, Eldering and Thompson[20] on a reinforcing or "booster" injection in kindergartners who had received their primary course from one to four years previously, a dose estimated as 5 billion bacteria stimulated a marked opsonic response. The presently recommended dose is roughly four times the dose used in that study. Further studies are needed to determine whether a smaller recall dose might be adequate under present conditions of usage.

The question of how early to start immunization is one that has received much discussion and has been the subject of a number of investigations. According to the answer to this question, procedure will be modified. For example, the time for a booster injection will depend on when the primary immunization was given. Di Sant'Agnese[21] has reviewed the findings of several authors on the capacity of new born infants to produce antibodies, and has presented his own data in this and other papers. He urges that, pending further work, a conservative approach be made to the question of immunization of infants less than three months of age. The argument that infants should be immunized immediately after birth because of the relatively high mortality in the very young infant may not be as telling as it might at first appear. While the case fatality rate during the first few months is high, the incidence is low; and mortality may be reduced indirectly by preventing the disease in the older children where the incidence is high, thus reducing exposure of the young infants. Of course, the decision as to the age at which infants should be immunized must be based on a number of practical as well as immunological considerations. For example, there is the problem of integrating protective measures against several diseases when combined multiple antigens are used. While further information and experience are accumulating, nothing will be lost by the conservative approach suggested by Di Sant'Agnese. For the very young non-vaccinated infant known to be exposed in his household, specific antiserum is available. This is the place for the use of hyperimmune serum—in the exposed infant, in the early stage of incubation; under these conditions the disease may actually be prevented.

In the event that a child has missed primary immunization in infancy as recommended, there is no experimental basis for concern over vaccinating the older child if circumstances indicate it should be done. In the preliminary study of pertussis vaccine in Grand Rapids, children of five and six years were given a primary course, and for many years booster injections were given to kindergartners who had not received them within the previous year. Of course, as with other bacterial antigens, somewhat more marked reactions may be expected with increasing age. Even so, in adults under immunization for production of hyperimmune antiserum, no unusual difficulty has been encountered.

Reactions to Vaccine Injections

Local and systemic reactions to pertussis vaccine alone and combined with toxoids have been studied by many investigators. The questions

raised by Byers and Moll,[22] among others, concerning the possible correlation between injections of pertussis vaccine and subsequent encephalopathies, and then the question of the possible provoking-effect of injections of vaccine in poliomyelitis or localization of paralysis, have been discussed by various authors. In the Medical Research Council study,[8] reactions were observed in over 10,000 visits and it was concluded that local and general reactions were not serious. Looking for possible instances of encephalopathies, they observed that among over 30,000 vaccinated children 34 had their first recorded convulsion 4 to twenty-eight days after injection, however, they found no reason to consider that the convulsions were precipitated by the injections. In these trials it is their policy to accept for injection only well children and not within a month after attacks of measles, mumps, influenza, chickenpox and similar diseases or smallpox vaccination. They do not accept children with a personal or family history of convulsions, epilepsy, hydrocephalus or mental defect. In children with such histories, the private physician must weigh the possible though rare ill effects of vaccine injections against the likelihood of occurrence of whooping cough and its attendant dangers in the individual children concerned; and he will take into consideration that while the occurrence is rare, encephalopathy occurs more frequently in association with the disease whooping cough than in association with the vaccination procedure. As to possible effects of vaccine injections in provoking poliomyelitis or localizing paralysis, such occurrences at most must be rare indeed; with more extended protection against poliomyelitis they can be expected to be still rarer. The statement of the conference on this problem called in 1952 by the United States Public Health Service[23] was included in the report by the conference of the World Health Organization,[6] and its acceptance is implied in the current recommendations of the Academy of Pediatrics.[19]

In summary, the importance of whooping cough is such that specific immunization must be maintained. Research is needed as a basis for improving the immunizing agents and methods of administration. Evaluation is needed of the effect that a program of immunization has on the immune status of the individual and of the community. Recognition of the changing status is a prerequisite to intelligent modification of immunization procedures in the effort to obtain the best possible results in terms of specific protection.

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Current Investigations of Immunization Against Poliomyelitis

By Gordon C. Brown, Sc.D.
Ann Arbor, Michigan

THE nationwide field trial of inactivated trivalent poliomyelitis vaccine in 1954 proved conclusively that this method of immunization against the disease was effective and practical.[1,2,3] Advances and improvement in the manufacture of the vaccine have resulted in increasingly consistent preparations both as to antigenicity and safety.[4,5,6] The poliomyelitis surveillance program of the U. S. Public Health Service has accumulated a vast amount of information proving that the vaccine has resulted in a sharp reduction in paralytic poliomyelitis wherever tested. In 1955, data from approximately twenty states show that the incidence of paralytic poliomyelitis was from two to more than five times as great in unvaccinated children as in those receiving vaccine.[7] There was a less marked but favorable difference reported for the nonparalytic cases. In 1956, the over-all effectiveness of the vaccine in preventing paralytic poliomyelitis was about 75 per cent in spite of the fact that a large proportion of the vaccinated population had received less than three doses.[8] Furthermore, specimens from many cases reported as poliomyelitis, especially nonparalytic cases, have been subjected to laboratory examination with the result that poliomyelitis was ruled out either by failure to isolate the agent or by the actual isolation of other causative organisms. As an example, stool specimens from 458 cases diagnosed clinically in Michigan during 1957 have been processed in the Virus Laboratory of the School of Public Health and poliomyelitis was confirmed in only thirty-nine. Thirty-two of these isolations occurred in the unvaccinated group of 203 individuals. In contrast, the remaining seven isolations were made from a total of 255 subjects who had received one or more doses of vaccine. Thus a ratio of almost six to one in favor of the vaccine was demonstrated. This extensive laboratory investigation of diagnosed cases has brought to light an increasing number of other viral agents such as Coxsackie and Enteric Cytopathogenic Human Orphan (ECHO) viruses and their significance in clinical disease is rapidly becoming more apparent. They are commonly involved in outbreaks of aseptic meningitis and other illnesses closely resembling non-paralytic poliomyelitis.

Thus the widespread use of the Salk vaccine since its inception has provided overwhelming evidence of its effectiveness and its use is recommended without reservation. An interesting corollary of vaccination with inactivated virus is that individuals so immunized may still be infected subclinically upon subsequent natural exposure with the result that their immunity is greatly reinforced while being protected against the paralytic disease at the same time.

Recent Studies on Administration of Vaccine

The field trial of 1954 was conducted in early school age children and a set schedule of three primary inoculations within a five-week period had been rigidly adhered to. Many questions, therefore, were immediately apparent. Was the dosage schedule designed to elicit optimal response in vaccinated subjects or could it be improved? Would secondary immunization give a booster effect and what would be the best time for its administration? Would the vaccine be as effective in infants and preschool children? Do inoculations of gamma globulin interfere with active immunization? What effect upon the response would occur following a marked delay between the first and second injections of vaccine? And perhaps most importantly, what is the duration of immunity following vaccination? Additional studies to answer these questions, therefore, were designed and some of them were actually begun while the field trial was in progress. As a result the recommended dosage schedule was changed to the use of two primary injections several weeks apart followed by a secondary or booster inoculation six to seven months later.[4] The im-

Dr. Brown is Professor of Epidemiology, Department of Epidemiology, Virus Laboratory, University of Michigan School of Public Health, Ann Arbor, Michigan.

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portance of this booster injection in completing the immunization schedule has been repeatedly confirmed[4,9-13] and all the available evidence points dramatically to the fact that this inoculation is the greatest single factor insuring an adequate immune response. It has been found that preschool children do respond well to the vaccine and that infants as young as two to three months of age also develop satisfactory antibody levels.[14] No untoward reactions have been observed even in this youngest age group. These facts have enabled pediatricians to inaurgurate immunization very early in life and therefore decrease the incidence of disease in this extremly susceptible age group. Another study has demonstrated that the administration of twice the usual dosage of gamma globulin just three days prior to the injection of poliomyelitis vaccine does not interfere in any way with the response to active immunization.[11] An investigation of over 200 school children in whom the second injection of vaccine was delayed five to six months showed that this delay does not invalidate a satisfactory response but in fact may improve it.[15]

Another type of study which is being conducted at present concerns the administration of multiple antigen preparations containing the toxoids of diphtheria and tetanus, pertussis antigen and the three types of poliomyelitis virus. The results of preliminary experiments in animals with such a vaccine have been published.[16] Several other experimental preparations are under study and the results in animals are encouraging in that satisfactory antibody responses to the individual components of the multiple antigen are obtained. These vaccines will be tested in infants in the near future and if proved efficient will greatly simplify the process of immunization against four diseases of childhood simultaneously.

Duration of Immunity

The aforementioned studies, although time consuming, were relatively short term projects. But the important question of duration of immunity following vaccination with killed virus preparations was by definition one that required a long time to answer. In fact, the longer the interval since vaccination the more significant would be the information obtained. Data on this subject are being accumulated in several ways. In one study, two groups of school age children in different counties of Michigan who had received their primary vaccination during the field trial of 1954 and their secondary immunization one year later in 1955 have been studied throughout this period with the latest serological examination in 1957. In addition, a group of preschool children and infants who had received their inoculations at approximately the same time have been studied in the same manner.[17] The results show that regardless of the extent of primary response a marked antibody rise followed the secondary or booster stimulus given six months to one year later and that even two years after the secondary stimulus the serum antibody levels remained remarkably high. In fact, the decline of the mean post-booster antibody level of 461 to a level of 102 in vaccinated school children during the two year period is almost identical numerically with levels of 512 and 122 reported by Lennette in patients convalescent from paralytic disease which had been confirmed by virus isolation.[18] Properly scheduled vaccine can, therefore, be expected to give good titers which are sustained for at least two years.

Another study designed to reveal the present status of sero-immunity in children vaccinated under field conditions is being conducted at present. Through information contained in the files of the Vaccine Evaluation Center it was possible to select a representative number of children who had participated in the field trial of 1954 and who had been found to be serologically negative to all three types of poliomyelitis before receiving their inoculations. These names were compiled into separate lists and health officers in the various counties of Michigan and New York were asked to co-operate in the study by obtaining specimens of blood during the period of late 1957 and early 1958. In addition, a history of contact with known cases of poliomyelitis and a record of vaccine injections since the field trial were requested. Through the co-operation of these health officers many such specimens have been obtained and tested in the University of Michigan Virus Laboratory.[19] The results on approximately 200 of these specimens have been analyzed by correlating the present serum antibody levels with the history of vaccination and prove very interesting. Although there was a great variation in vaccination histories since the field trial, by far most of the children were found to fall into one of four groups: (1) those vaccinated three times in 1954 and

once in 1955, (2) those receiving placebo three times in 1954 and two injections of vaccine in 1955, (3) placebo in 1954, two injections of vaccine in 1955 with a third in 1956, and (4) placebo in 1954, two injections of vaccine in 1955 and a third in 1957. The geometric mean antibody levels are presented in Table I where it can be seen that the highest titers at the present time are found in the original placebo group which had received their last of three injections only a year ago in 1957. However, the levels in those not receiving any vaccine during the three years since 1955 are indeed significant especially in those who had only two injections. In fact, a small number of children who had received vaccine three times in 1954 and nothing during the four years since that time showed levels of ten, thirty-two and fourteen to the three types respectively, a remarkable record for the persistence of antibody.

TABLE I.

SEROLOGIC STATUS OF CHILDREN NEGATIVE TO THREE TYPES OF POLIOMYELITIS

History of Inoculation				Mean Antibody Titer—1958		
				Type		
1954	1955	1956	1957	I	II	III
Vaccine 3x	—	—	—	10	32	14
Vaccine 3x	Vacc. 1x	—	—	24	51	12
Placebo 3x	Vacc. 2x	—	—	11	22	5
Placebo 3x	Vacc. 2x	Vacc. 1x	—	32	64	19
Placebo 3x	Vacc. 2x	—	Vacc. 1x	64	218	24

There is little doubt that when all the results are tabulated the vaccine will again be shown to be highly effective in stimulating persisting sero-immunity.

A third study of immunity to poliomyelitis concerns the response of pregnant women to vaccination and the duration of passively transferred materal antibodies in the infant.[20] Vaccination was performed during the seventh and eighth months of pregnancy. Serum specimens were obtained from the mother before vaccination, at delivery, from cord blood, and from the infant at twenty-four hours, one week, one month, two months and three months after birth. The results of serum antibody titrations on these specimens show that the mothers responded to vaccination with elevated antibody levels and that the response of those with some antibodies before vaccination was greater than in those without. Statistical analysis of the serum titers of mothers at delivery, that of the cord blood, and of the infant at twenty-four hours showed that the poliomyelitis antibody content of the three specimens was essentially the same indicating that the infant also profits serologically from vaccination of the parent. The titers of passively transferred antibodies in the infants declined with age at the same rate regardless of whether they had been stimulated naturally with infection or artificially with vaccine. Many infants had demonstrable antibodies at the third month of life but the duration of antibody was a direct function of the height of the antibody titer in the mother at the time of delivery thus demonstrating the value of vaccination in heightening antibody levels of pregnant women and their offspring and indicating the probable protective influence in a period of increased risk.

Live Virus Vaccine

During the last six years considerable work has been conducted on the safety and efficacy of orally administered attenuated but live virus vaccines.[21-23] The underlying concept of these studies has been the deliberate establishment of a subclinical infection in the alimentary tract in the hopes that the subsequent immunity would be long lasting. Serum antibodies have, in fact, been demonstrated as long as six years after feeding virus in a small group of children. However, the critical problem which needs to be proven beyond a shadow of a doubt if these viruses are ever to be widely disseminated is whether such attenuated viruses are capable of reverting to their original virulent state following passage through human beings. Resistance in subjects fed attenuated virus is demonstrated by the much more limited period of alimentary infection after refeeding than is seen in individuals who have previously been vaccinated with inactivated viruses but some reversion to an increased state of

neurotropism for monkeys has been detected after one human passage. Furthermore, it would appear that attenuated viruses of the three types must be fed separately in order to avoid interference with their multiplication by the most dominant type. One interesting possibility is currently being investigated, namely, the administration of two or more injections of killed virus vaccine followed by the feeding of live virus.[24,25] This procedure would in effect supply the added stimulus of actual subclinical infection with subsequent prolonged immunity to individuals who were protected against the paralytic disease but still capable of excreting virus for several weeks following re-exposure. Another possibility, although not likely in this country where millions of children have already been immunized with Salk vaccine, is a careful large scale field trial similar to that of 1954 in children with live attenuated virus vaccines to test its actual effectiveness and practicability.

Summary

The highly successful field trial of Salk poliomyelitis vaccine in 1954 has been followed by additional and overwhelming evidence of its ability to sharply reduce the incidence of paralytic disease. This vaccine has now been found to be effective and safe in all age groups including very young infants and most important, significant sero-immunity has been demonstrated to persist for as long as three to four years. Thus, current investigations on immunization against poliomyelitis are not concerned with confirmatory evidence of its proven value but in attempting to find ways that it may be even more useful in eliminating this disease.

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Vaccination against Respiratory Diseases Caused by Viruses

By Fred M. Davenport, M.D.
Ann Arbor, Michigan

INFLUENZA as commonly encountered has been caused by either Type A or Type B influenza virus which are immunologically distinct agents, although the diseases they produce are otherwise closely similar. Epidemics recur at intervals of a few years associated with slight antigenic modification in the prevalent strains of the virus. At certain times the shift in character of strains is of a major nature. Major antigenic shifting appears to occur every ten to fifteen years.

The results of a series of studies carried out since 1942 by the Commission on Influenza of the Armed Forces Epidemiological Board have largely served to establish the effectiveness of influenza virus vaccines. The findings are summarized in Table I. Protective effect is expressed as the ratio of attack rate in controls to that in vaccinated subjects. During the influenza A epidemic of 1943, at least 3.6 times as many cases occurred among unvaccinated persons as among vaccinated persons. In 1945, a higher degree of protection against influenza B was shown. However, in 1947, the A-prime strains unexpectedly appeared; they differed distinctly from the strains representative of earlier years of which the vaccine was made. That vaccine did not effectively stimulate antibody against the A-prime strains. Nevertheless, it was thus firmly established that strain differences among influenza viruses, measured serologically, can be of importance with respect to immunization of man. The problem was met by putting A-prime strains in all subsequent vaccines, and the record shows that between 1950 and the Spring of 1957, an important degree of protection against influenza A-prime was uniformly produced by vaccination even though differences in strains were seen in various years.

Antigenic variation among strains of influenza B has been a less prominent feature, yet the results of the trials of 1955 with Lee strain (1940) showed that here, too, the time had come to update vaccines by adding a more recent isolate. Subsequent vaccines have contained the Great Lakes strain of influenza B isolated in 1954.

Concern in this country with Asian influenza began when in May, 1957, Dr. Maurice Hilleman, at that time Chief, Department of Respiratory Diseases, Walter Reed Army Institute of Research and also an Associate Member of the Commission on Influenza, reported by telephone to the Commission that the epidemics of influenza then occurring among civilians in Hong Kong and among the military in the Far East were caused by strains belonging to a new antigenic family of influenza A viruses. A series of steps was taken by the Commission to evaluate the significance of his findings. Hilleman had observed that antibody against the new strains—now called Asian—was not readily demonstrable in the serums of adult Americans and that little or no antibody increase was found with these strains in cases of influenza A-prime observed in Americans in early 1957.[1] These observations were promptly confirmed and extended in the laboratory at Ann Arbor. There it was shown that antibody increase to the Asian strains then available could not be demonstrated after vaccination with potent polyvalent vaccine containing Swine, A, and A-prime viruses. Nor could the new strains be typed by hemagglutination-inhibition (HI) tests with serums of ferrets convalescent from infection with prototype strains isolated in former years.

Profiting by the experiences of 1947 and of 1955, rapid action was taken to obtain influenza virus vaccines containing an Asian strain. Early, the Commission on Influenza began to evaluate the protective effect of the vaccines that could be produced at that time. The first formulas were empirically derived yet they proved to be reasonably satisfactory. In the meantime, the national health agencies and the biological manufacturers

Dr. Davenport is Associate Professor of Epidemiology, School of Public Health and of Internal Medicine, Medical School, University of Michigan, Ann Arbor, Michigan.

Certain of the investigations reported were conducted under the auspices of the Commission on Influenza, Armed Forces Epidemiological Board, Office of the Surgeon General, U. S. Army, Washington, D. C.

TABLE I. SUMMARY OF RESULTS OF VACCINE TRIALS CONDUCTED BY THE COMMISSION ON INFLUENZA

Year	Prevailing Type	Concentration of Vaccine	Number Vaccinated	Number Cases	Rate	Number Controls	Number Cases	Rate	Protection Ratio
1943	A	5000 HU	5806	114	1.96	5776	408	7.06	3.6
1945	B	5000 HU	1150	10	0.87	2150	241	11.21	12.9
1947	A—prime	5120 HU	10328	743	7.19	7615	616	8.09	1.1
1950	A—prime	300 CCA	670	8	1.2	2082	78	3.7	3.1
1951	A—prime	500 CCA	2596	13	0.5	5228	105	2.01	4.0
1952	B	700 CCA	207	15	7.24	430	83	19.32	2.7
1953	A—prime	750 CCA	5994	57	0.95	5527	316	5.7	6.0 CR8.1*
1953	A—prime	750 CCA	2616	16	0.61	4865	135	2.77	4.5
1955	B	50 CCA Adj	2000	43	2.2	2000	70	3.5	1.6 CR2.2*
1957	A—prime	750 CCA	1188	11	0.92	1216	62	5.1	5.5
1957	Asian	250 CCA Mono	916	20	2.18	1448	55	3.79	1.7
1957	Asian	200 CCA Mono	775	46	5.93	806	121	15.01	2.5
1957	Asian	400 CCA Mono	649	12	1.73	1238	65	5.25	3.0
		400 CCA Poly	564	9					
1957	Asian	200 CCA Mono	1869	62	3.32	1665	126	7.61	2.3
		750 CCA Mono	1665	29	1.74				4.4
1957	Asian	200 CCA Mono	1080	43	3.98	1444	234	16.2	4.1

*CR—Corrected ratio.

moved effectively to produce more than 50 million doses in 1957. The last five entries in Table I show the results of a clinical appraisal of the efficacy of vaccination in controlled studies during the recent pandemic of Asian influenza. These findings have already been published in detail.[2] The effectiveness of vaccines was studied by four groups of investigators in a comparison of 12,002 test subjects who received certain monovalent or polyvalent vaccines with 9,363 contratest subjects who received placebo injections. The estimates of effectiveness, based on relative respiratory illness rates, ranged from 42 to 67 per cent in the various groups. The trends are sufficiently distinct to indicate the final effects which may even be increased when laboratory studies identify and eliminate cases of respiratory disease caused by agents other than the Asian virus. An important degree of protection was observed in all the studies and the amount of protection was enhanced at higher doses of vaccine. The studies indicate that doses of 200 CCA units given subcutaneously were less than optimal, and that vaccines at 400 CCA units or above gave higher and more uniform protection. For example, at Fort Ord, (Table I, 11th entry) using the early vaccine of 200 CCA potency, an effect of 45 per cent was obtained, while in the later study with 400 units (Table I, 13th entry), an effect of about 70 per cent protection was obtained with a single dose. This information played a paramount role in guiding the decision to increase the potency of Asian virus vaccines. Clearly, the fruits of continued investigation and of constant vigilance again firmly demonstrated that vaccination is an effective method of protection against epidemic influenza when proper vaccines are employed.

Indications for Vaccination

Outbreaks of influenza occur almost yearly. Major disturbances tend to recur in cycles every few years. Because the severity and extent of an epidemic cannot be accurately predicted, annual vaccination is recommended. Certain categories of persons have a special need for protection. Characteristically, mortality from influenza and pneumonia is high in infants of less than one year of age, declines at later years of childhood, but after age twenty shows a progressive increase. After about sixty years of age, mortality exceeds that of infancy. At the extremes of life, then, influenza exacts a heavy toll. Furthermore, it has been repeatedly shown that during influenza outbreaks, mortality from chronic debilitating disease at all ages, i.e., chronic cardiovascular disease, chronic renal disease, and chronic pulmonary disease, is increased sharply above the usual levels. Clearly, influenza can tip the balance between life and death in persons whose continued existence is jeopardized by a serious chronic illness. The current experience with Asian influenza has emphasized again the fact that pregnant women are at increased risk of death from influenza, especially in the last trimester of pregnancy, and they, therefore, should be vaccinated promptly. Mortality, however, is not the sole standard by which the need for protection is judged. Because a high rate of illness might embarrass or prevent fulfillment of their mission, annual vaccination against influenza has been practiced by the Armed Forces for the past five years. In civilian life an incidence of 20 per cent or more in a community can seriously cripple its function and create a state of emergency. With this possibility in view, in 1957 the policy was formulated to urge vaccination of

civilians concerned with services essential to the normal maintenance of community activities; those concerned with health, public safety, public utilities and transportation.[3] To prevent overloading of facilities for medical care, vaccination has long been offered annually to students at certain colleges or at other institutions where people live together away from their homes. Finally, because a bout of influenza is an uncomfortable and inconvenient experience, there has been a growing use of influenza virus vaccine for protection of individuals regardless of their current state of health. Recently, the practice of vaccinating children has increased because of growing appreciation that the attack rate is at all times highest in childhood and that the child of school age frequently introduces infection into the home. Moreover, repeated infections of childhood probably exact their toll in the difficulties of later life.

Dose, Schedule and Route of Vaccination

These factors are varied by age because the practical and immunologic problems to be solved are not uniform at all ages. Vaccination of infants less than three months old is not recommended since in general they possess antibodies transferred transplacentally and ordinarily this antibody should afford adequate protection. After three months of age the maternally transferred antibody is lost, the infant's capacity to manufacture antibody upon primary stimulation remains poor, and, concomitantly, infants and young children are peculiarly sensitive to the toxic effects of influenza viruses. To minimize systemic reactions to vaccination and to take advantage of increased antibody response after larger amounts of virus are given in the initial course, the following plan of vaccination is recommended. From three months to school age, a dose of 20 to 40 CCA units of virus is given in 0.1 ml volume intracutaneously twice at one or two week intervals. At five to twelve years of age the child has usually had at least one previous infection with influenza A or B viruses and partial advantage can therefore be taken of the "booster phenomenon." At this age the child will also tolerate larger doses of influenza viruses. Hence, in this age group, adequate levels of antibody can generally be attained by giving 100 to 200 CCA units of virus subcutaneously, repeating the dose after an interval of one to two weeks. From thirteen years of age onwards, an adult dose of 400 to 500 CCA units given once subcutaneously is ordinarily prescribed. A range of dosage is given for each age group because the composition of influenza virus vaccines is varied from time to time according to current estimates of requirements for protection and availability of stocks of virus. It seems likely that the amounts of virus recommended for each age group will be revised upwards as experience accumulates because limited experience indicates that children can tolerate much larger doses than those described. Intracutaneous vaccination is not recommended for persons six years of age or older, because the smaller dose of vaccine that can be given intracutaneously results in a lower yield of antibody. Nor has there yet been a good field demonstration of the effectiveness of intracutaneous in comparison with subcutaneous vaccination. At present careful attention is being given to the usefulness of two doses of vaccine at intervals of six to eight weeks or longer even in adults, for the indications are that a broader and more durable resistance is developed. This subject is reviewed elsewhere.[4]

According to current information, the schedule of vaccination recommended for children three months to five years of age is well tolerated. The higher dose recommended for children five to twelve years of age may at times elicit systemic reactions in 10 to 20 per cent of those vaccinated. Malaise, muscle aches, headache, and chilliness are common symptoms of reaction. Fever is less frequently encountered. Nausea and vomiting occur rarely. It has been our practice to give acetylsalicylic acid to children as a prophylactic during the first twenty-four hours after vaccination, using the usual dose—age relationship as a guide; i.e., one grain of aspirin per year of age four times a day. With this procedure, experimental studies have been carried out safely in childen aged six to ten using 1000 CCA units given once subcutaneously. It would seem that oft voiced fears of the hazards of vaccination against influenza in childhood are largely unjustified. Persons receiving the adult dose experience systemic reactions at a rate of about one per cent. Persons known to be allergic to eggs should not be vaccinated. When in doubt, skin testing can be resorted to, using 0.02 ml of a one to ten dilution of vaccine.[5] A positive reaction is a wheal appearing in twenty to thirty minutes.

Adenovirus Vaccines

Adenoviruses cause acute respiratory disease of recruits (ARD), pharyngoconjunctival fever, and non-bacterial pharyngitis. These syndromes can occur in epidemic proportions under conditions of exposure seldom encountered in the civilian practice of medicine. Jordan, Price, and Evans have independently shown that infection with adenoviruses causes only a small proportion of the respiratory illness that occurs in civilian populations; i.e., between two and four per cent.[6-8] Therefore, despite the fact that adenovirus vaccines have been shown to be highly effective in the prevention of epidemic ARD among military recruits,[9-11] their use in civilian practice is not recommended at present.

Vaccination Against Respiratory Diseases Caused by Other Viruses

Isolation of new viruses from patients with respiratory illness is being reported at an encouraging rate.[12-15] Nevertheless, until the frequency and the consequences of infection by these recently described agents is known, and until evidence from carefully controlled vaccine trials establishes the value of prevention by vaccination, a conservative attitude towards the use of new but untried respiratory virus vaccines seems warranted.

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The Use of Nisentil in General Practice

By Harry Lamb, M.D
Sturgis, Michigan

IN general practice, the need for a short-acting, well tolerated analgesic arises almost every day. Not only is such an agent required to relieve pain, it is also of value to encourage relaxation and facilitate prompt and precise completion of the procedure in question.

In the search for the ideal analgesic for office procedures and obstetric use, many preparations have been introduced, and a number of these have been used successfully. However, each has had its drawbacks and, up to this time, there has not been available a versatile and short-acting analegsic the general practitioner could use conveniently and safely in his office and obstetric practice.

A suitable analgesic must, among other things, be able to relieve pain and allay apprehension without causing loss of consciousness, nausea and vomiting or prolonged amnesia. Particularly when pain is severe, a primary concern of the physician is the administration of an adequate dose; this dose, however, must not be so large as to produce significant respiratory depression or other undesirable side effects.

This report deals with the use of Nisentil® Hydrochloride (alpha-prodine hydrochloride) for analgesia of short duration in a variety of procedures. Nisentil is a relatively new synthetic narcotic which provides effective relief of pain and apprehension with a minimum of side effects.[1-4] The respiratory depression which may follow the use of any potent analgesic can be prevented or effectively overcome by the concomitant administration of a narcotic antagonist such as Lorfan® Tartrate (levallorphan tartrate). Nisentil is rapid-acting and has a short duration of effect, features which make it particularly well suited to office and obstetric use.

First described by Ziering and Lee[6] in 1947, and introduced for clinical trial in 1948, Nisentil was subsequently used successfully in many thousands of patients. Earlier reports dealt mainly with the obstetric use of the drug. LaForge[7] achieved excellent results with Nisentil in 1,000 obstetric patients, and Kane[8] reported similar findings in another 1,000 patients. A number of other authors described equally good results in smaller groups. Recently, reported indications for Nisentil have expanded to include urologic procedures,[4,9,10,11] bronchography,[12] preoperative and postoperative analgesia,[2,3] and other conditions where a rapid-acting analgesic of relatively brief duration was required.

Although the series of cases here reported is small, the distribution of procedures effected is fairly wide and believed worthy of consideration. Nisentil was employed in eighty patients—thirty-five obstetric, eight orthopedic, three dental, thirty-three surgical and one postoperative.

Obstetric Procedures

In obstetrics, Nisentil was employed mainly during the second stage of labor. Observations on the use of Nisentil in the obstetric patient have been widely reported in the literature and need not be repeated here.[8,9,13,14] However, two additional advantages of Nisentil observed in this series appear to be significant and worthy of mention.

First, it was noted that when Nisentil was used in the second stage of labor—and sometimes in the more distressing portion of the first stage—the course of labor was materially shortened. Presumably, this was because of the relaxed condition and unimpaired co-operation of the patient.

Secondly, it was found that, because the second stage of labor was easier and shorter, the patient approached delivery with considerably less discomfort and tension. For example, in several multiparous patients who had had less effective analgesics for previous deliveries, delivery was far easier on this occasion. When these patients were given a 60 mg dose of Nisentil within the one and one-half hours before delivery, or 30 mg intravenously immediately before delivery, no other analgesics or anesthetics were required for delivery. On one occasion, the use of low forceps was well tolerated with Nisentil alone.

Orthopedic Procedures

In eight patients with fractures or dislocations, Nisentil was successfully employed for analgesia during manipulations. In two instances, the patients were children, both four years old, both with fractures of the forearm. One was a Colles' type fracture of the distal head of the radius, and the other was a green-stick fracture of both radius and ulna at the junction of the distal and middle third of the forearm. Both patients were given 30 mg of Nisentil intramuscularly and both fractures were comfortably reduced. These patients became very drowsy, but could be easily aroused at any stage of the procedure and were fully conscious of their surroundings when awakened.

The third fracture treated involved the supracondylar area of the right femur of a man forty-two years old. This patient also had an ununited fracture of the upper third of this femur, sustained previously, and an arthrodesis of the knee. Nisentil was administered in a dose of 30 mg intravenously, and reduction and immobilization of the supracondylar fracture was carried out without discomfort.

The fourth fracture treated in this manner was also manipulated under the influence of 30 mg of Nisentil intravenously. In this instance, the patient was a woman seventy-two years old, who had severely comminuted the distal head of the radius. She also had a contusion laceration over an incomplete ulnar fracture. Manipulation was without discomfort, but satisfactory reduction could not be obtained because of the comminution of the fragments. This patient was referred to an orthopedic surgeon for care.

Four other orthopedic patients were treated; two were elderly persons with fractures of the femoral neck. In the latter instances, 30 mg of Nisentil was administered intravenously to facilitate moving of the patients to and from the stretcher and x-ray table, and in both cases, excellent co-operation and excellent analagesia were obtained. The surgical fixation of these fractures was subsequently carried out under the usual anesthetic techniques.

One patient with a dislocation of the shoulder was treated with 30 mg of Nisentil intravenously. Although this dose permitted manipulation without undue discomfort, 120 mg of thiopental sodium by the intravenous route had to be given subsequently to secure adequate relaxation for reduction of the dislocation.

Reduction of a dislocation of the interphalangeal joint of the left thumb was accomplished under analgesia induced by 30 mg of Nisentil intravenously, and a laceration of the palmar surface of the thumb was sutured without further medication.

Dental Procedures

In three patients undergoing dental procedures, Nisentil was used in a dosage of 30 mg intravenously. One patient obtained excellent relief of pain during the filling of several cavities, but experienced nausea and vomiting. This reaction was attributed in part to the fact that she was in the second trimester of pregnancy. Two other patients underwent multiple extractions, but relief of pain and apprehension with Nisentil was only fair. These two patients were extremely apprehensive, and premedication with a mild barbiturate-atropine combination was not successful in allaying this apprehension.

Surgical Procedures

In twenty-two surgical procedures, Nisentil, in a usual dosage of 30 mg intravenously, was the only analgesic employed. When so used, ideally 100 to 200 mg of secobarbital or pentobarbital were given by mouth one hour before operation, together with 1 mg of atropine methylnitrate and 15 mg of phenobarbital to offset possible nausea. The procedures in which Nisentil was used alone for analgesia included a nasal polypectomy; evacuation of thrombosed external hemorrhoids; incision and drainage of a pilonidal abscess and other abscesses; the passage of urethral sounds; excision of hemorrhoidal tags; cystoscopy; debriding and dressing of burns; separation of a graft pedicle; direct laryngoscopy. In one four-month-old infant, a hemangioma was removed from the flank, after 20 mg of Nisentil I. M., without premedication.

Of particular interest as a demonstration of the efficacy of Nisentil was the performance of a dilatation and curettage for hemorrhage eleven days postpartum; this patient was given 30 mg of Nisentil intravenously and 4.5 grains of secobarbital intravenously, and received no other analgesic medication. She remained awake during the procedure and experienced no pain.

In the remaining eleven patients, Nisentil

was used in conjunction with other agents. Of six patients who had local anesthesia concomitantly with Nisentil, two underwent tonsillectomies for which the usual infiltration with 1 per cent procaine was carried out. It was found that the use of Nisentil with a local anesthetic resulted in a much less trying ordeal for the patient and an operation of shorter duration. The operations for which this combined analgesic medication was employed also included excision of a disfiguring scar; excision of a lipoma from the neck; and a sternal puncture for bone marrow studies. In each of these instances, 2 per cent procaine was used only in the skin, and dissection of subcutaneous tissue, where required, was performed with only the analgesia afforded by Nisentil. In every case, the patients were perfectly comfortable and did not complain of any pain.

Nisentil was also employed in conjunction with atropine (60 mg of Nisentil and 0.6 mg of atropine intramuscularly) as premedication for five patients about to receive general anesthetics, and as postoperative medication in one patient. The latter was a man, eighty-four years old, who had responded with profound respiratory depression to other analgesics.

Side Effects

In this series of eighty patients, there were only three instances of untoward side effects. In one woman, sixty-seven years old, who received 60 mg of Nisentil intramuscularly as preoperative medication, a mild degree of respiratory depression was noted during the administation of thiopental sodium. The four-month-old infant who had received an intramuscular dose of 20 mg of Nisentil developed a profound cyanosis, which was promptly terminated by the administration of 0.5 mg of Nalline (nalorphine hydrochloride) intravenously. One other case of cyanosis occurred in a newborn infant following the administration of a 60 mg dose of Nisentil to the mother about 20 minutes prior to delivery. This infant was promptly "pinked up" by the administration of 0.5 mg of Lorfan Tartrate (levallorphan tartrate) I.V.

In order to avoid the possibility of respiratory depression, which appears to be more prominent in the aged and the infant, it has become my policy to employ Lorfan Tartrate as a narcotic antagonist in such patients. Lorfan Tartrate has the ability to reverse the narcotic-induced respiratory depression without abolishing pain relief. It is mixed with Nisentil in a ratio of 1 mg of Lorfan to 60 mg of Nisentil. This ratio appears to afford the same protection as does the manufacturer's recommended 1:50 ratio, and has the advantage of permitting nurse or physician to use one ampul of each preparation, thereby avoiding errors in mixing. For obstetric use, the premixed solution is administered to the parturient woman.

Summary and Conclusions

Nisentil was employed as an analgesic in eighty patients in whom other analgesic agents had been demonstrated to be unsuitable, or in instances where lack of suitability was anticipated.

The analgesia produced by Nisentil was found to be adequate for a wide variety of surgical procedures, many of which would otherwise have required the administration of a general anesthetic.

The use of Nisentil was mainly free from undesirable side effects, with the exception of three cases of respiratory depression—two infants and one in an elderly patient.

This respiratory depression was promptly overcome with the use of a narcotic antagonist.

A method for the prevention of narcotic-induced respiratory depression by the combined administration of Nisentil and the narcotic antagonist Lorfan Tartrate is described.

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Granulocytopenia Associated with Chlorpromazine Therapy

By Gunnar Vetne, M.D.
Northville, Michigan

CHLORPROMAZINE APPEARS to be now established as a valuable pharmacological agent in the treatment of many medical conditions. Its use is widespread in hospitalized bed patients, as well as ambulatory patients. The drug has several side effects, the most serious of which is bone marrow depression with granulocytopenia. The number of reports, reaching the literature, of granulocytopenia due to chlorpromazine is growing rapidly; suggesting that greater caution than hithertofore exercised, in its administration, is desirable and necessary.

Chlorpromazine has been used in this hospital (Northville State Hospital) on a mass basis, since October, 1954. Approximately 1,700 patients have received chlorpromazine, in varying dosages for varying periods of time, up to the present. Of these approximately 1,700 patients, six have developed severe granulocytopenia; four of these six having a fatal outcome. Mild, or questionable. leukopenia developed in a number of patients but all of these recovered rapidly when chlorpromazine was discontinued. This particular group of borderline leukopenias is not included in this report. We concern ourselves here only with the six patients who developed severe granulocytopenia following the administration of chlorpromazine. They received from 50 to 100 mgm. of chlorpromazine three to four times daily.

TABLE I. DURATION OF CHLORPROMAZINE MEDICATION BEFORE SYMPTOMS OF BONE MARROW DEPRESSION WERE DISCOVERED.
Data on six patients who developed granulocytopenia during Chlorpromazine medication.

Case	Age	Date Drug Started	Date Toxicity Discovered	Date	WBC	Granulocytes Per 100 Cells	Outcome	Date
1 V.W.	62	10-13	12-6	11-16	8050	(normal diff.)	Died	12-7
				12-6	1500	0		
2 G.B.	52	8-10	9-22	8-17	4850	48	Died	9-24
				9-22	100	2		
3 J.W.	68	3-28	5-1	5-1	250	0	Died	5-11
4 S.P.	35	5-29	6-18	6-4	5300	(normal diff.)	Recovered	
				6-18	3550	58		
				6-27	2800	12		
				6-29	2000	31		
				7-2	2900	29		
				7-12	7700	77		
5 F.M.	88	7-18	8-28	7-3	6000	(normal diff.)	Died	8-30
				8-21	4050	79		
				8-28	400	1		
6 M.C.	45	9-7	10-2	9-10	8200	(normal diff.)	Recovered	
				10-2	1300	44		
				10-3	1550	3		
				10-5	1750	2		
				10-9	2500	14		
				10-10	5500	19		
				10-11	9100	32		
				10-15	17900	70		
				10-17	13750	(normal diff.)		

Table I presents the pertinent data on these six patients. The four patients who died ranged in age from fifty-two to eighty-eight years. The two patients who recovered were below the age of fifty.

When the second fatality occurred, in September, 1955, the procedure of following up, hematologically, patients receiving chlorpromazine was reviewed and, at that time, the following policy was established: Complete white counts and differentials were obtained at the beginning of chlorpromazine medication and at periods of three, four, five, and six weeks after initiation of

Dr. Vetne is an Internist at Northville State Hospital, Northville, Michigan.

the medication. Thereafter, no white counts were taken unless the patient developed symptoms such as fever, sore throat, etc. Only the limited laboratory facilities of the hospital prevented us from seeking white counts at more frequent intervals. The particular time intervals between differential counts were established after screening the literature on chlorpromazine toxicity. Few reports had been made of the occurrence of granulocytopenia earlier than three weeks or later than seven weeks after the drug had been started.[1] Our experience has confirmed this observation. Leukopenia was discovered between twenty-five and fifty-three days after chloropromazine was started. The very first case of granulocytopenia, due to chlorpromazine, was discovered fifty-three days after the drug was started. Since the above policy had not been established at that time, there had been no white count for the three weeks preceding the discovery of leukopenia.

In Case 6, the patient had a normal white count three days after chlorpromazine medication was started. The second count was taken twenty-two days later and was 1,300 per cubic mm., with 39 per cent neutrophils. The following day, the neutrophil count had dropped to one and the second day had dropped to zero. It was evident that the leukopenia had developed suddenly and progressed rapidly. It was apparent that the leukopenic reaction began less than three weeks after chlorpromazine medication had been initiated.

Bone marrow studies were carried out in Cases 2, 3, and 5. They all demonstrated depression of the granulocytes and granulocytic precursors. In the four cases with fatalities, ACTH and cortisone were administered only a few days prior to death. In the two surviving patients, the white blood count started to improve two days and five days, respectively, after treatment with ACTH and corticoids was instituted. It is impossible to ascertain whether this improvement in the white count was a direct result of these drugs or due, primarily, to the discontinuation of chlorpromazine.

In a report to the A.M.A. Council on Pharmacy and Chemistry in January, 1956,[2] it is estimated that the rate of incidence of blood dyscrasia is very low in patients given chlorpromazine medication; possibly one in 50,000 to 100,000 patients receiving the drug. Our observations of six cases of bone marrow depression in a total of approximately 1,700 patients, suggests that the incidence of granulocytopenia, due to chlorpromazine administration, is considerably higher than this estimate. It would appear that this toxic reaction occurs much more frequently in patients over the age of sixty. Less than 10 per cent of the thorazine treated patients, in this hospital, have been above the age of sixty, yet half of the agranulocytic responses came from this age group. As noted previously, all patients in this older age group died. Bone marrow depression due to chlorpromazine appears to be much more serious in the older age group than in younger patients. We therefore feel that chlorpromazine and related compounds should be used with great caution in older patients. It has been our experience that granulocytopenia, if it develops, will occur between three and one-half and seven and one-half weeks after the initiation of medication. The rapidity with which granulocytopenia occurs is very alarming. Case 5 had a low normal white count of 4050 with a normal differential. Seven days later, this patient's total count was 400 per cmm., with a differential count of 1 segmented neutrophil, 88 lymphocytes, and 11 monocytes. This case demonstrates that weekly white blood count does not suffice as an accurate measure of beginning granulocytopenia. Ideally, counts should be done daily or at least every other day. They should be continued for at least two months after the initiation of chlorpromazine therapy. If a patient tolerates chlorpromazine without developing granulocytopenia for a period of at least two months, it appears probable that he will not develop bone marrow depression despite the continuation of the medication.

Case 4 was an epileptic and had been maintained on dilantin, 100 mgm., tid., at the time the neutropenia was discovered. The dilantin was not discontinued, and it is quite unlikely that this latter drug was responsible for the bone marrow depression, since the patient made a rapid recovery after chlorpromazine was discontinued. None of the other patients included in this report were receiving any drugs, other than chlorpomazine, which could be suspected as agents in bone marrow depression. None of these six cases of granulocytopenia developed jaundice. The concomitant occurrence of jaundice and granulocytopenia has been reported to be highly fatal.[3]

Summary

Six cases of granulocytopenia due to chlorpromazine are presented. Four patients above the

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Congenital Inadequacy of the Cervix as a Cause of Infertility

By S. W. Trythall, A.B., M.D., F.A.C.S.
Detroit, Michigan

FACTORS responsible for successful termination of sterility cases studied in our office proved that patients falling in the relative infertility group had opened a channel of investigation leading to one of the specific causes of premature delivery in the nullipara. This is the problem presented by the pathological lower uterine segment which we* feel is of congenital origin.

From this review, the women in the above categories revealed pathology amenable to corrective treatment as follows:

First, by preventive therapy in thirteen prima gravidas with congenital inadequacy of the cervix. Early recognition made it possible to deliver 11 viable babies, thus avoiding neonatal death and a subsequent relative infertility.

Second, by preventive therapy in ten of the nineteen multigravidas who by history have congenital inadequacy. In these women investigation revealed that *of* their multiple early deliveries, the first one terminated prematurely without traumatic incidence to the cervix.

Third, by the use of the Lash technique or its modification in the tracheoplasty operation in fifteen of the above women.

The author encountered his first problem of the inadequate cervix twenty-two years ago and subsequently has had moderate success by conization of the internal os as Steinberg[16] reported at the International Fertility Association meetings in Naples in 1956. This procedure has been replaced by a modification of the Lash tracheoplasty technique.

From a survey of the literature and discussion with fellow practitioners of the causes and treatment of premature delivery, one suspects a lack of understanding of cervical inadequacy as one of the multiple and complex causes of early termination of pregnancy.

In a study of the modern textbooks, it was noted that Greenhill,[6] Eastman,[3] and Titus[18] were the only authors writing in detail of this important facet of the problem of premature labor.

Therefore, those of us working in obstetrics and infertility should be grateful to Dr. Abraham Lash for bringing into focus the problems of a group of relatively infertile women in whom no endocrine or wheat-germ routine would prevent an early delivery.

The definitive diagnosis and surgical correction of the incompetent cervical os was first correlated by him from the world literature which included the investigations of J. J. Fisher,[5] personal communications with N. Sproat Heaney as quoted by Dr. Lash,[7] and the studies of Palmer[11,12] and Lacomme.[11] Lash was distressed by the paucity of literature available during the past twenty-five years on this subject of second trimester abortion due to the incompent cervix. The material was summarized in his two important papers, i.e., Lash and Lash, 1950,[7] and Rubovits, Cooperman, and Lash, 1953.[15]

The senior Dr. Lash, reporting to the International Infertility Association in Naples in May, 1956,[6] discussed the results of 44 tracheoplastics for this type of habitual abortion. He was able to follow thirty-four of these patients, showing viable pregnancies after surgery in twenty-nine (85 per cent).

However, in the original work of Lash and that of the few other men who report this problem, the traumatic factors of previous pregnancy, abortion, and cervical trauma were given as the predominant causes. A characteristic statement was, "In virtually all of our cases there was an antecedent history of trauma to the cervix.[15]"

In our study of patients with inadequate cervices, it was found that 32 per cent had had no previous pregnancy, abortion, or curettage. These cases without forewarning had lower uterine segments which became completely effaced and dilated early in the second trimester. We believe these are the women who have a congenital inadequacy of the cervix. When not detected, they

Dr. Trythall is Senior Attending Obstetrician and Gynecologist, Crittenton General Hospital, Detroit.

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will continue to contribute to the high premature death rate because of repeated early termination of pregnancies resulting in relatively infertile marriages. In our work we became aware that by frequent vaginal examinations we were able to detect the early effacement of the cervix. This occurs over an extended period of time in preparation of the uterus for premature delivery. This is in agreement with the recent publication of work done on the "Prevention of Premature Delivery" as reported by Dr. L. J. Stephens.[17] The definitive diagnosis must be made early and the proper treatment instituted if the pregnancy is to be carried at least to viability.

The importance of this problem of premature delivery in our state is emphasized by the following facts as reported by Dr. G. Corneliuson of the Michigan Department of Health: "(a) Prematurity is still the greatest cause of death in children; and (b) Prematurity ranks 7th as a cause of all deaths."[2]

Majewski and Jennings bring us abreast of the times in stating that between 6 and 7 per cent of the total United States births have been consistently premature.[9]

Great strides have been made in the past ten years in the reduction of neonatal death rates by the improved obstetrical care of the newborn. This has been accomplished largely by the work of Beck[1] and Potter[13,14] in emphasizing the responsibility of the obstetrician for the first twenty-four hours of the infant's life.

By 1950, the year that terminated my ten-year study of peri-natal morbidity and mortality at Crittenton General Hospital in Detroit,[19] it was possible to cut our rate by almost 50 per cent because of improved antenatal, intrapartum and postpartum care. At that time my attention was focused upon a discouragingly large group of the second trimester deaths of no known cause except prematurity.

Since then, the percentages in Michigan have remained almost static. In 1950, the neonatal death rate was 6.6 per 1,000. In 1955 it was 6.4. In 1955 there were 14,000 premature births or 7.3 per cent. This group accounted for 49 per cent of the fetal deaths.[2]

The author believes that early diagnosis of the inadequate lower uterine segment by all men practicing obstetrics would start a new trend which could change this figure to one which will begin to approach the irreducible minimum, as we are now experiencing in maternal mortality statistics.

The ideal method for the further reduction of the above figures as discussed by Potter[13] is a prophylaxis against the early delivery, thus circumventing the difficult task of caring for the immature infant.

In our office, one method used for preventing the premature delivery is the early diagnosis of the congenital inadequacy of the cervix. This has been facilitated by the fact that these women are infertility case studies and a complete investigation offered clues that they should be followed more closely than the routine pregnancies.

In the prima gravida group, it was noted that only one out of thirteen demonstrated abnormal hormone assays.

In the multigravida group, there were nineteen with relative infertility because of repeated premature terminations of pregnancy. Careful analysis of their histories including hospital records revealed no trauma to the lower uterine segments. When beginning treatment at our office, these women had a total of forty-seven conceptions with only a 20 per cent fetal salvage because of an apparent inadequate lower uterine segment. We, therefore, consider them to be a badly neglected congenital type.

The following signs and symptoms were found in the majority of all cases:

1. The examination revealed a 5/6 to 1/6 corpus to cervical ratio or a combination of hypogenital characteristics.

2. Ethiodal studies revealed that in a majority of the patients there is an abnormal uterine contour. The predominate variation presented is an arcuate type with a tendency to the bicornuate pattern. There is a subsequent loss of the normal cervicocorpus angle which gives the cavity a truncated appearance.

Dr. Frederick Falls in a recent discussion of a paper on the cause of premature delivery stated that following a good many years of study of the configuration of the uterus he finds a rather large percentage of abnormalities in habitual abortion problems.[4]

3. The Basal Body Temperature variations were minimal and nonconstant in the majority of these cases, offering a clue to an approaching problem. No amount of hormones changed the temperature patterns. One patient took 450 milligrams of oral progesterone per day for 26 weeks.

4. Lower abdominal pressure, excessive painless uterine contractions, persistent dysuria, and rectal irritability were premonitory findings which could not be ignored if the diagnosis were to be made early.

5. Fetal movement becomes quiet from increased intra-uterine tension once effacement and dilatation occur.

Suspected patients are carefully instructed and asked to advise us when any one of the preceding conditions occurs. Speculum and vaginal examinations are mandatory in these women every five to seven days beginning in the second trimester. The definitive diagnosis is made on feeling and seeing complete effacement and at least 2 or 3 centimeters of cervical dilatation with the membrane presenting.

The inadequate cervix should be detected before the membrane is extruded through the os into a sphere because when this does occur, the total intra-uterine volume is diminished, the cervix contracts, and shearing of the placental bed may result in uterine bleeding before the rupture of the membranes. This leads to a confusion in diagnosis of the true etiology causing the termination of pregnancy.

The membrane may present as a hemisphere as visualized in twenty of our cases of the inadequate cervix. With treatment relieving the hydrostatic pressure on the segment, the secundines will retract and the cervix close. Our experience has proved that this is a type of threatened abortion for which bed rest is one of the remedies.

Our first method of treatment then is that of preventive therapy in order to circumvent the early delivery:

1. Bed rest, high Trendelenburg, until the cervix closes
2. Bathroom and laxative privileges
3. Prophylaxis against intra-abdominal pressure
4. Carefully adjusted maternity corset
5. Lutrexin tablets, 4 STAT—three, two, one each hour until the contractions and uterine tension decrease in those patients with uterine irritability.
6. House calls
7. Termination of pregnancy by appointment to avoid a precipitous home delivery.

We have used Lutrexin since its introduction to the market.* Patients have been instructed when and how to use this medication and to tabulate its effectiveness. Of the women given this preparation, 55 per cent report their ability to control the uterine contractions and symptoms with this drug.

After the cervix has closed, the membrane retracted, and the patient has a viable baby, she is given liberty commensurate with the adequacy of the cervix.

Following the above routine in the thirteen nulliparous women who had eighteen pregnancies with congenital inadequacy of the lower uterine segments, eleven infants (60 per cent) were carried to viability and survived. In seven patients the membranes ruptured before the twenty-sixth week resulting in fetal deaths.

In the multigravida group who had had a previous fetal salvage of 20 per cent, early visual diagnosis was made in ten cases. Of these babies, 80 per cent survived on the above conservative treatment.

We realize that when bed rest might be necessary for as long as six months it may be extremely difficult for our patients. Therefore, we recommend tracheoplasty following delivery in all who have had a positive diagnosis by visual and digital examination of cervical inadequacy during pregnancy and confirmed by ethiodol studies.

We also recommend surgery for the women in whom the abnormality exists, proven by history and the Lash x-ray technique.

During the weeks that this paper was being completed, a woman in the above group who had successfully carried her last of five pregnancies to viability on conservative therapy, presented us with a second effacing dilating cervix at twenty-two weeks. Bed rest was impossible and, following a discussion with Dr. W. J. Mulligan,[10] it was decided to take a more positive approach to prevent the premature rupture of the membrane. Following his technique, a polyethylene (animal tested) 1/16 inch tubing was used as a purse string suture to close the cervix.

The writer believes that this definitive approach used in the early months of gestation in the women who have bad histories of habitual abortion of this type would result in greater fetal salvage.

When indication for operation is not well defined, we prefer to observe the patient through a pregnancy before surgery.

We have used tracheoplasty in fifteen women. Six of these have not attempted to conceive. Seven have become pregnant and all have carried to term except one. This patient had a poor result from surgery and delivered a 3½ pound premature viable baby. Two who have conceived are in the third trimester with no forseeable difficulty.

*Hynson, Westcott & Dunning, Inc., Baltimore, Maryland. Patients using Lutrexin were on individual prescription basis.

The purpose of this paper is to emphasize three important factors:

1. The possible fetal salvage by the early recognition of the congenital inadequate lower uterine segment as a definite entity causing prematurity and relative infertility.

2. To further stimulate all doctors practicing obstetrics to use the simple inexpensive diagnostic device of more vaginal examinations in the second trimester.

3. To prove there is a positive approach to avoiding infertility and fetal wastage by a direct attack upon the consistent 7 per cent premature birth rate which resulted in 1200 neonatal deaths in Michigan in 1955.[2]

Acknowledgment

Gratitude is expressed to Drs. R. C. Jeremias and J. L. Gillard, my partners, who have spent many hours examining the patients cited in order to establish that congenital inadequacy of the cervix is a definite clinical entity as a cause of prematurity and relative infertility.

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GRANULOCYTOPENIA WITH CHLORPROMAZINE

(Continued from Page 710)

age of fifty died, while two younger patients recovered. The much higher incidence of this complication in the older age group, together with the fatal outcome in these patients, indicates caution in the use of chlorpromazine in this age group. In each instance, the granulocytopenia was discovered twenty-five to fifty-three days after chlorpromazine therapy was initiated. In one case, blood changes developed very rapidly with a white count of only 400 with one granulocyte within a week after a preceding normal count had been obtained. The incidence of six cases of thorazine granulocytopenia, in a total of approximately 1,700 patients receiving the medication, indicates a much higher frequency of this complication than has generally been recognized. It is recommended that for the first eight weeks white blood counts be done daily or at least every other day.

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Musculoskeletal Manifestations of Systemic Lupus Erythematosus, Polyarteritis Nodosa, Dermatomyositis and Diffuse Scleroderma

W. M. Mikkelsen, M.D., H. A. Zevely, M.D.,
N. H. Chatelin, M.D., and I. F. Duff, M.D.
Ann Arbor, Michigan

IN A RECENT symposium, Robb-Smith reviewed the historical evolution of the concept of connective tissue as a functioning unit subject to specific diseases. This concept was first introduced by Klinge in connection with rheumatic fever and rheumatoid arthritis and became widely known when Klemperer, Pollack and Baehr described disseminated lupus erythematosus and diffuse scleroderma as diffuse collagen diseases. Polyarteritis nodosa and dermatomyositis have subsequently been added to the list of connective tissue diseases. Although the term collagen (or connective tissue) disease has no diagnostic significance, its introduction has served to stimulate investigation of these disorders and of connective tissue.

Klinge and Vaubel pointed out the similarity between some of the lesions of rheumatic fever and polyarteritis nodosa and those which could be induced in experimental animals by the injection of foreign protein. Others have suggested, on the basis of certain common histologic features, including fibrinoid necrosis, that all of the diseases of this group may have an allergic or hypersensitive origin. However, the nonspecific nature of fibrinoid necrosis has been emphasized repeatedly. Further, it has been recognized that connective tissue can respond to injury only in a limited number of ways. Duff has described these as formation of excessive and possibly abnormal matrix within which fibrinoid necrosis may occur, proliferative activity of fibroblasts with production of new collagenous connective tissue, and granulomatous inflammatory reaction. Variations in the degree of participation of these components and differences in anatomic distribution enable the pathologist to distinguish the various disease entities in most cases. At present an allergic mechanism appears probable in serum sickness, rheumatic fever, and at least some cases of polyarteritis nodosa. One must conclude, however, that although similar morphologic features are perhaps suggestive of a similar pathogenesis, they are by no means conclusive proof.

Since connective tissue is a constituent of every body tissue and organ, it is not surprising that these diseases exhibit a wide variety of signs and symptoms and in many cases present overlapping or shifting clinical pictures. Musculoskeletal manifestations are prominent among the features which these disorders may share. Indeed, such manifestations occur almost without exception in rheumatoid arthritis and are present in a majority of cases of rheumatic fever. The recent report of Friedman, Schwartz, Trubek, and Steinbrocker served to re-emphasize the arthropathies associated with the other ("pararheumatic") connective tissue diseases.

The study was undertaken to review the experience at the University of Michigan Hospital with systemic lupus erythematosus, polyarteritis nodosa, dermatomyositis and diffuse scleroderma. It was restricted to necropsy cases, in order to avoid uncertainty regarding the clinical diagnosis and with the expectation of obtaining material from the articulations. Unfortunately, insufficient material was available to permit any comment regarding the histopathologic changes in the synovial tissues. Particular attention was directed to the

From the Rackham Arthritis Research Unit and Department of Internal Medicine, University of Michigan, Ann Arbor. The Rackham Arthritis Research Unit is supported by a grant from the Horace H. Rackham School of Graduate Studies. Additional support is derived from the United States Public Health Service, through the National Institute of Arthritis and Metabolic Diseases, and the Michigan Chapter, Arthritis and Rheumatism Foundation.

Dr. Mikkelson is Instructor, Department of Internal Medicine, University of Michigan Medical School, and Associate Physician, Rackham Arthritis Research Unit.

Dr. Zevely is a former Junior Clinical Instructor in Internal Medicine, University of Michigan Medical School, and Research Assistant, Rackham Arthritis Research Unit.

Dr. Chatelin is a former Assistant in Research, Rackham Arthritis Research Unit, University of Michigan.

Dr. Duff is Associate Professor of Internal Medicine in charge of the Rackham Arthritis Research Unit, University of Michigan.

frequency and type of musculoskeletal manifestations and to points of possible value in the differential diagnosis of these disorders.

Systemic Lupus Erythematosus

Musculoskeletal manifestations have been amply recognized as one of the most frequent manifestations of systemic lupus erythematosus. In report of 154 cases seen at the Mayo Clinic prior to 1938, Montgomery described "arthralgia or arthritis" in 63 per cent of the acute cases, 57 per cent of the subacute, and 20 per cent of the chronic cases. In a review of 132 cases seen at the same institution from 1939 through 1947, Montgomery and McCreight noted "arthralgia or arthritis" in 91 per cent of acute, 71 per cent of subacute, and 43 per cent of chronic cases. This apparent increase in incidence was attributed to an increased awareness of articular symptoms as an early manifestation of the disease. Harvey, Shulman, Tumulty, Conley and Schoenrich reported "arthritis or arthralgia" in 90 per cent of 105 patients seen at Johns Hopkins Hospital; in 32 per cent an "acute migratory polyarthritis" was the initial manifestation of illness. These authors comment that striking objective joint changes are less common than the complaint of arthralgia with mild soft tissue swelling but without redness or much local tenderness. Soffer, Elster and Hammerman reported similar findings in a review of thirty-two patients; symptoms of "arthralgia" occurred in 94 per cent of the cases and "arthritis" in 59 per cent; in 44 per cent actual joint abnormalities were demonstrated on physical and roentgenologic examination.

Most authors have recognized that, although subjective musculoskeletal complaints are perhaps most frequent, a considerable proportion of cases will have objective joint findings. In some there may be migratory involvement of the large or small joints closely simulating rheumatic fever. In a smaller group of cases there occur deformities, contractures, ankyloses, and x-ray changes compatible with rheumatoid arthritis. Harvey and associates "observed that skeletal deformities were frequently associated with chronic arthritic involvement." These were described as "typical of rheumatoid arthritis" in 28 of 95 patients with joint involvement. Contractures, muscle atrophy and joint deformity were occasionally marked and at times disabling. Shearn and Pirofsky found deformities "similar to the changes observed in rheumatoid arthritis" in 12 per cent of 34 cases. Dubois stated that "arthritis is the most common presenting symptom" and "is usually typical of early rheumatoid involvement." A "persistent rheumatoid deformity" occurred in 30.6 per cent of his 62 cases. Dubois concluded, "as far as one can tell, both clinically and pathologically the arthritis is indistinguishable from the idiopathic type of rheumatoid involvement." In our opinion, it is difficult to judge whether such cases are examples of systemic lupus erythematosus alone or whether they represent the coexistence of this disease with rheumatoid arthritis.

Musculoskeletal symptoms represented the initial manifestation in eight (38 per cent) of the present group of twenty-one patients and occurred ultimately in eighteen (86 per cent). Arthralgia and/or myalgia was unaccompanied by objective joint findings in seven (33 per cent). Objective evidence of active synovitis was observed in eleven (52 per cent). Physical findings in regard to the joints were usually mild and transient, but in five cases were suffiicently severe and persistent to suggest rheumatoid arthritis to experienced observers. Flexion contractures of moderate degree developed in three patients; these involved, respectively, the knees, elbows and fingers, and fingers alone. In four cases the migratory pattern of joint involvement was suggestive of rheumatic fever. These observations are summarized in Table I.

Polyarteritis Nodosa

Harris, Lynch and O'Hare reviewed 101 cases of polyarteritis nodosa and reported "arthritis" in 27 per cent; in many instances, undoubtedly, joint pain was the only manifestation of articular involvement. Logue and Mullins in a similar review of 177 reported cases, noted the occurrence of "arthritis" in 34 per cent. These authors stated that "muscle pain and soreness are common," that "joint symptoms are frequent and vary from arthralgia to acutely swollen joints," and that "migratory polyarthritis may occur." Boyd reported "joint involvement" to be the initial manifestation in fourteen of 100 cases and the second in eleven; the neuromuscular system was involved first in nineteen cases, second in eight, and third in four. This author commented on the tendency of articular and neuromuscular symptoms to appear early, but observed that the joint symptoms

tended to fade into the background as the disease progressed, and that late in the course inspection of the joints usually proved negative even though arthralgia persisted. Mowrey and Lundberg, in a recent review of 607 cases from the literature and at the Armed Forces Institute of Pathology, stated that "musculoskeletal manifestations" occurred in 50 per cent. Lowman found muscle and joint symptoms early in the course of thirty of forty-three cases; however, only four had objective evidence of synovial involvement. This author stated that the muscular symptoms were usually worse with activity and better with rest, in contrast to the symptoms of generalized fibrositis which are usually worse after rest and relieved by activity.

TABLE I. MUSCULOSKELETAL MANIFESTATIONS IN FIFTY CASES OF CONNECTIVE TISSUE DISEASE

	Systemic Lupus Erythematosus 21 cases	Polyarteritis Nodosa 18 cases	Dermatomyositis 5 cases	Diffuse Scleroderma 6 cases
Initial manifestations of disease	8 patients, 38%	4 patients, 22%	1 patient, 20%	5 patients, 83%
Arthralgia and/or myalgia, without objective findings	7 patients, 33%	10 patients, 55%	3 patients, 60%	6 patients, 100%
Polyarthritis	11 patients, 52%	4 patients, 22%	0 patients, 0%	0 patients, 0%
R.F.-like	6 patients, 29%	2 patients, 11%		
R.A.-like	5 patients, 24%	2 patients, 11%		
Flexion contractures	3 patients, 14%	2 patients, 11%	2 patients, 40%	6 patients, 100%
No musculoskeletal manifestations	3 patients, 14%	4 patients, 22%	2 patients, 40%	0 patients, 0%

In eighteen patients in the present study,* musculokeletal symptoms were the initial complaint of four (22 per cent) and were present at some time in fourteen (78 per cent). Ten patients (55 per cent) had symptoms of stiffness, aches, or pains in joints and muscles without accompanying objective physical findings. Polyarthritis, with objective joint findings, occurred in four instances and was confused with symptoms of rheumatoid arthritis or rheumatic fever.

The first patient was a twenty-three-year-old woman whose illness began with an acute polyarthritis involving the knees, wrists, metacarpalphalangeal and proximal interphalangeal joints. After several months the process gradually subsided leaving muscle atrophy, loss of joint motions and moderate flexion contractures which closely simulated rheumatoid arthritis. X-ray examination of the hands and wrists revealed only osteoporosis.

The second patient was a thirty-nine-year-old man who developed mild swelling and tenderness and aching of the larger peripheral joints one year after the onset of his illness. A diagnosis of rheumatic fever was suggested by a physician, and large amounts of salicylates were administered with only moderate relief. Gradually, marked muscular atrophy and flexion contractures of the elbows, wrists and finger joints developed. The wrists became ankylosed.

The third patient was a fifty-year-old man whose illness began when he awoke one morning with swelling, redness and increased warmth and pain on motion in the proximal interphalangeal finger joints, wrists, elbows, shoulders, ankles, knees and hips. The patient's temperature varied from 99 to 100 degrees F. and a tentative diagnosis of rheumatic fever was made. All joint manifestations subsided during a three week period of bed rest.

The fourth patient was a forty-six-year-old man who developed swelling, erythema, and increased warmth of the left knee. There was marked subjective and objective improvement following a one month course of therapy with cortisone, 50 mg. daily.

Dermatomyositis

A review of the literature confirms the view that, although subjective musculoskeletal complaints are common, objective evidence of intra-articular disease is rarely found in association with

*Specifically excluded from the present study were four patients with well established rheumatoid arthritis who developed diffuse arteritis similar in many respects to polyarteritis nodosa. An additional four cases in which minimal localized arterial lesions were associated with hypertensive renal disease were also excluded.

dermatomyositis. O'Leary and Waisman found "arthritis" presumably with objective joint findings, in two of forty cases. Sheard reported joint stiffness and periarticular swelling in seven of twenty-five patients with dermatomyositis; the hands, elbows and knees were chiefly involved. In three of these patients, there were objective joint changes in the hands which were stated to be similar to those of rheumatoid arthritis. In a clinicopathologic conference, Lever discussed a case of proven dermatomyositis with x-ray evidence of joint damage which he attributed to coincident rheumatoid arthritis. In most reported cases muscular symptoms have been prominent; these include aching, stiffness, tenderness, cramps, weakness and atrophy. Involvement of the extrinsic ocular muscles, diaphragm and muscles of the larynx, pharynx and anal and vesical sphincters has been described. Flexion contracture and joint deformity may occur. Such changes have been attributed to involvement of muscle, tendinous insertions and periarticular supporting structures.

Muscular involvement dominated the clinical picture in the present group of five patients. Early symptoms included stiffness, tenderness and aching. As the disease progressed, atrophy and weakness became prominent. Arthralgia was present in three cases, although other evidence of inflammatory intra-articular disease was not observed. Persistent contractures of 30 to 70 degrees of elbows and knees developed in two patients.

Diffuse Scleroderma

The literature concerned with scleroderma contains scattered references to the occurrence of musculoskeletal manifestations. Osler in a detailed report of eight cases, described arthritic symptoms in five. O'Leary and Nomland reported mild to severe degrees of stiffness, aching, tenderness and occasional swelling in the joints of 58 per cent of forty-eight patients with generalized scleroderma. X-ray examination of the hands was made in sixteen of the twenty-eight cases with joint complaints and was normal in six; "periarticular arthritis" (presumably soft tissue swelling) was marked in four and slight in one case; destructive changes of the bones of the hands were present in two and loss of some or all of the distal phalanges in three. Gil reported eight cases of diffuse scleroderma, four of which "showed clinical manifestations of arthritis" which cleared after weeks or months leaving no residue; x-ray examination of these patients revealed no joint abnormality. It has been recognized, however, that persistent joint deformities may occur in scleroderma. Sellei, in his discussion of acrosclerosis, states that the hands tend to assume an "inwardly-bent position" due to flexion of the fingers and that in some cases "changes," which he does not describe, appear in the joints ("pseudoarthritis deformans"). Leinwand, Duryee and Richter, reporting 150 cases, stated that joint pain was almost always present and often preceded the skin changes, so that arthritis was not uncommonly an early diagnosis. Contracture deformities were also noted in their cases. Rodnan, Black, Bollet and Bunim have recently reported six patients with diffuse scleroderma, three of whom were stated to have "complaints of sore, swollen joints, with involvement of virtually all the peripheral articulations." They found evidence of an acute or chronic inflammation in the synovial tissue obtained by open biopsy of the suprapatellar bursae of these three patients. In addition, x-ray examination disclosed osteoporosis and narrowing of the joint spaces.

The initial complaint of five of the six patients with diffuse scleroderma in the present series was swelling, stiffness and pain in joints. Such symptoms often antedated definite skin changes and were confused with symptoms of early rheumatoid arthritis in four instances. Despite lack of evidence of intraarticular disease, loss of motion and mild flexion deformity developed in all cases.

Differential Diagnosis

Musculoskeletal involvement in these fifty patients frequently resulted in confusion with rheumatoid arthritis or rheumatic fever. Differential diagnosis was often difficult and at times impossible except with the passage of time and appearance of additional manifestations.

Rheumatoid Arthritis.—The clinical picture of rheumatoid arthritis is dominated by the joint manifestations; usually these overshadow the constitutional and extra-articular manifestations, although recent reports of "malignant rheumatoid arthritis" emphasize that this is not invariably so. Joint involvement is usually symmetrical, progressive and when well established readily recognizable. So-called "atypical" cases, however, are

common and may be readily confused with the other connective tissue diseases. The presence of subcutaneous nodules constitutes a most helpful diagnostic sign. These nodules, which may occur in 20 to 30 per cent of cases, are generally considered to be the most specific pathologic lesion of rheumatoid arthritis. Renal involvement, which is common in systemic lupus erythematosus and polyarteritis nodosa, is extremely rare in uncomplicated rheumatoid arthritis. Although ocular involvement may occur with any of the connective tissue diseases, Godtfredsen stated that uveitis and episcleritis are more characteristic of rheumatoid arthritis, while exudative or hemorrhagic retinopathy is more frequent in systemic lupus erythematosus and polyarteritis nodosa. Hypertension is uncommon in rheumatoid arthritis, unusual except as a late manifestation in systemic lupus erythematosus and relatively common in polyarteritis nodosa. Although hemagglutination tests are being perfected, there is at present no laboratory test that can be considered diagnostic of rheumatoid arthritis.

Rheumatic Fever.—Rheumatic fever occurs most commonly in children and young adults. Its pathogenesis is intimately linked with preceding hemolytic streptococcal infections. Antibodies against various streptococcal products can be demonstrated in higher than normal titer in the sera of patients with early rheumatic fever. A variety of nonspecific "acute phase reactions," such as the presence of C-reactive protein and elevation of the erythrocyte sedimentation rate, may also be present. The diagnosis is favored by the presence of two or more of the major Jones criteria as modified by a committee of the American Heart Association: carditis, typical polyarthritis, chorea, subcutaneous nodules, or erythema marginatum. Joint involvement is quite characteristic; one or several joints may be affected at a time, usually in a rapidly migratory fashion and with complete clearing without residual damage. Cardiac involvement is more frequent and more severe than in the other connective tissue diseases. Prolongation of the P-R interval in the electrocardiogram is a common finding in early acute rheumatic fever. The presence of chorea is of great diagnostic value, since it is almost exclusively a manifestation of rheumatic fever. Erythema marginatum, although it occurs in only about five per cent of cases, is likewise considered a relatively specific lesion. The subcutaneous nodules of rheumatic fever differ from those of rheumatoid arthritis in their small size, brief duration, and histologic appearance.

Rheumatic fever is most apt to be confused with rheumatoid arthritis and systemic lupus erythematosus. The features outlined above, however, suffice for differentiation in most cases. The absence of persistent or residual joint involvement is in sharp contrast to the usual findings in rheumatoid arthritis. Response to adequate doses of salicylates is as a rule more prompt and complete than in rheumatoid arthritis or the other disorders of this group.

Systemic Lupus Erythematosus.—In systemic lupus erythematosus the constitutional and extra-articular symptoms ofter overshadow the joint symptoms and not uncommonly may increase in severity at a time when joint manifestations are subsiding. In rheumatoid arthritis the articular and extra-articular manifestations usually proceed in a parallel fashion. Renal involvement, which is not encountered in uncomplicated rheumatoid arthritis, often occurs in systemic lupus erythematosus. Other findings expected in a sizable percentage of cases of systemic lupus erythematosus, but unusual in rheumatoid arthritis, include: erythematous eruptions of the face, involvement of the nonarticular serous membranes with effusion, central nervous system involvement as manifested by convulsions or toxic psychoses and clinical evidence of cardiac disease. Notable leukopenia is present in the majority of cases of systemic lupus erythematosus, where as it is relatively uncommon in rheumatoid arthritis and distinctly unusual in acute rheumatic fever or polyarteritis nodosa. Leukocytosis, common in the latter two diseases, is uncommon in systemic lupus erythematosus in the absence of intercurrent infection. False positive serologic tests for syphilis have been reported in up to one-third of cases of systemic lupus erythematosus but have not been described with increased frequency in the other diseases of this is generally regarded as specific, although there are group. The lupus erythematosus phenomenon is generally regarded as specific, although there are reports of occasional false positive tests in a variety of other conditions, including rheumatoid arthritis. Biopsy of characteristic skin lesions may be of diagnostic value and, in an occasional case,

microscopic examination of material obtained by punch biopsy of the kidney may provide the diagnosis.

Systemic lupus erythematosus may occasionally simulate dermatomyositis although muscular symptoms are invariably much milder and atrophy, when it occurs, usually involves the small muscles of the hand rather than the large proximal muscle masses. Systemic lupus erythematosus rarely involves the extrinsic ocular, laryngeal, pharyngeal or palatal muscles, or diaphragm, all of which may be involved in dermatomyositis. Periorbital edema frequently occurs early in the course of dermatomyositis, whereas in systemic lupus erythematosus it is usually a late manifestation associated with renal impairment.

Polyarteritis Nodosa.—Polyarteritis nodosa conforms to no distinctive clinical pattern. Its most characteristic feature is the serial involvement of multiple organs or systems, often producing a highly variable or bizarre clinical picture which cannot be conveniently fitted into conventional diagnostic categories. The diagnosis should be seriously considered in the following situations: (1) a patient with bronchial asthma who develops eosinophilia in excess of 25 per cent, (2) a patient with hypertensive renal disease who develops constitutional or other symptoms not readily explained by the original diagnosis, and (3) a patient with apparent rheumatoid arthritis who develops severe constitutional symptoms or extra-articular involvement and pursues an abrupt downhill course. The occurrence of any of the following signs or symptoms should suggest the diagnosis, especially if associated with one of the aforementioned clinical situations: peripheral neuritis, abdominal pain, peptic ulcer, unexplained gastrointestinal bleeding, hypertension, palpable nodular lesions along the course of superficial arteries, necrotizing skin lesions, abnormal urinary findings, intermittent testicular pain, Loeffler's syndrome, x-ray picture of "diffuse granular disease" of lung, persistent unexplained polymorphonuclear leukocytosis, or a recent history of serum sickness or reaction to sulfa drugs or penicillin. The ultimate diagnosis is based on histologic examination; muscle biopsy can be expected to yield a positive diagnosis in 30 per cent or more of cases. It must be emphasized, however, that a negative muscle biopsy is of no value in excluding the diagnosis. When a reasonable suspicion exists regarding the diagnosis, multiple muscle biopsies should be obtained.

Dermatomyositis.—The primary clinical manifestations of dermatomyositis are those in skin and muscle. The skin lesions may be indistinguishable from those of systemic lupus erythematosus. Often, however, early in the course of dermatomyositis there is facial or periorbital edema, which is usually a late finding related to renal impairment in systemic lupus erythematosus. There may be confusion with diffuse scleroderma since induration and atrophy of the skin may occur in dermatomyositis and impressive muscular involvement is occasionally present in scleroderma. Subcutaneous calcification is relatively common in both of these disorders, but rare in the other members of this group. In dermatomyositis the combination of muscle tenderness, aching, weakness and atrophy is more severe than in the other connective tissue diseases. Likewise, involvement of the extraocular muscles, diaphragm, or muscles of the larynx, pharynx or anal or vesical sphincters is rarely encountered in the other diseases of connective tissue. Although subjective joint complaints are not uncommon and flexion contractures occasionally occur, dermatomyositis can usually be differentiated from rheumatoid arthritis by the lack of objective evidence of inflammatory intra-articular disease. The most characteristic laboratory finding is the increased creatinuria which, although nonspecific, is greater than that found in the other diseases of this group.

Diffuse Scleroderma.—It is in the early stages, before skin changes are apparent, that scleroderma is most likely to be confused with rheumatoid arthritis. Not uncommonly scleroderma is associated with diffuse edema and puffiness of the fingers and hands, so that swelling, when present, is not confined to the periarticular region as it usually is in rheumatoid arthritis. Flexion deformities may develop. These usually occur without physical or x-ray evidence of intra-articular disease, in contrast to the situation in rheumatoid arthritis. When fully evolved, the skin changes of scleroderma are characteristic and not apt to be confused with skin involvement associated with rheumatoid arthritis. Raynaud's phenomenon and other evidences of vasomotor instability are sufficiently common in all of the disorders to be of no differential diagnostic value.

Pathology

It is most unfortunate that in an institution devoted to medical education no systematic examination of the articulations was undertaken in the course of postmortem examination of fifty patients with "diffuse collagen disease." Such an experience is not unique, however, and information regarding the histopathologic changes in the synovial tissue in these diseases is meager indeed. Limited information can be obtained by examination of the more readily accessible sternoclavicular joint or by punch biopsy of the synovial membrane of the knee. The accumulation of more precise information will require a constant effort to obtain permission for special examination of the articulations in these disorders whenever the opportunity presents itself.

Summary and Conclusions

1. In a review of fifty cases of connective tissue disease, in which the diagnosis was verified by necropsy, it was found that musculoskeletal manifestations occurred commonly and frequently resulted in confusion with rheumatoid arthritis or rheumatic fever.

2. Of twenty-one patients with systemic lupus erythematosus, musculoskeletal symptoms were the initial manifestation in eight (38 per cent). Musculoskeletal involvement was entirely subjective in seven (33 per cent), but was associated with objective joint findings in eleven (52 per cent). The clinical picture was confused with rheumatoid arthritis in five instances (24 per cent) and with rheumatic fever in six (29 per cent).

The correct diagnosis was usually suggested by one or more of the following: discrepancy between the severity or course of articular and extra-articular manifestations, erythematous eruptions of the face, serous membrane involvement with effusion, evidence of renal impairment, convulsions, toxic psychoses, clinical evidence of cardiac disease, false positive serologic tests for syphilis, leukopenia and presence of lupus erythematosus cells.

3. Musculoskeletal manifestations represented the mode of onset in four of eighteen patients with polyarteritis nodosa (22 per cent). Although such symptoms were noted at some time in ten cases (55 per cent), in only four (22 per cent) were objective joint findings described. These were confused with rheumatoid arthritis and rheumatic fever in two cases each.

The diagnosis of polyarteritis nodosa should be suspected when a patient with bronchial asthma develops eosinophilia in excess of 25 per cent or when a patient with hypertensive renal disease or apparent rheumatoid arthritis develops marked systemic or other symptoms not readily explained on the basis of the original diagnosis. The following signs and symptoms occurred with some frequency in this series and should also suggest the diagnosis: peripheral neuritis, abdominal pain, peptic ulcer, unexplained gastrointestinal bleeding, hypertension, nodular or necrotizing skin lesions, abnormal urinary findings, intermittent testicular pain, Loeffler's syndrome, x-ray evidence of diffuse granular disease of lung, persistent unexplained polymorphonuclear leukocytosis, or a recent history of serum sickness or reaction to sulfa drugs or penicillin.

4. Subjective musculoskeletal involvement occurred in three of five patients with dermatomyositis (60 per cent). Although flexion contractures developed in two, differentiation from rheumatoid arthritis was possible because of the absence of the usual physical signs of inflammatory intra-articular disease. As the disease progressed in these patients, muscular atrophy and weakness eventually far exceeded that encountered in the other patients of this series.

5. All of six patients with diffuse scleroderma had musculoskeletal complaints; in five (83 per cent) these represented the mode of onset. Although some degree of flexion deformity developed in all cases, differentiation from rheumatoid arthritis was again made possible by lack of evidence of inflammatory joint involvement.

6. The possibility of one of the connective tissue diseases, and especially of systemic lupus erythematosus, should be considered in cases of apparent rheumatoid arthritis which are atypical or associated with multiple system involvement.

Newer Drugs Used in Neurology

By Russell N. DeJong, M.D.
Ann Arbor, Michigan

IN presenting the subject of "newer" drugs used in neurology, choice of material will have to depend somewhat upon an interpretation of the adjective "newer." It might be interesting but not very helpful or practical to discuss only the very recently tried drugs which are still experimental and not yet released for use; on the other hand, I do not wish to spend too much time discussing drugs whose action is known to all of you and with which you have all had experience. The ideal ones to discuss would be those very recently made available which are not too generally known as yet. In this discussion I must necessarily mention certain drugs which are fairly well known in order to compare them with the newer ones; I will try, however, to discuss the drugs most recently released, as well as some which are still experimental but will very shortly be available.

Ataractic or Tranquilizing Drugs

Because of the widespread interest in and publicity about them, I am going to start with a brief discussion of the so-called ataractic, or tranquilizing drugs. As you know, these are used more in the field of psychiatry than in neurology. The term "ataractic" or "ataraxic" was proposed by Dr. Howard Fabing and is derived from the Greek noun which means freedom from disturbance of mind or passion; he felt that the term tranquilizing was not quite correct.[1] There are a number of these drugs. In spite of their wide publicity they do have limited uses and different indications, and in general they are not immediate in action. Most of them have small or no effect on so-called normal segments of population (Table I).

There are two general groups of these drugs and the first and best known group consists of those that have been used primarily in the major psychiatric disorders, such as schizophrenia, acute mania, and disturbed states. The first of these drugs, of course, is reserpine, which, as you know, has a long and romantic history through its derivation from the snake-root plant *(Rauwolfia serpentina)*. It was first used clinically in modern medicine in the treatment of hypertension. It was then found to have a tranquilizing effect without too much sedative action, and was later found to be very helpful in many acute psychiatric conditions, bringing about some measure of relief in about 60 per cent; violent patients are controlled much more easily and disturbed patients are more manageable, but the drug certainly cannot be considered a cure.[2] Reserpine has also been found to be helpful in the treatment of Huntington's chorea, especially in the early cases, and not only are the abnormal movements somewhat less marked but the patients' mental reactions are better. One must bear in mind, however, that this drug does cause some depression in a large percentage of patients to whom it is given, and for that reason it must be given in a relatively small dose and the patients must be followed quite closely. We have found that some of our patients with Huntington's chorea have been improved as far as their movements are concerned, but have become extremely depressed and even suicidal while receiving reserpine.

TABLE I. ATARACTIC, OR TRANQUILIZING, DRUGS

1. For Use in Major Psychiatric Disorders
 - Reserpine (Serpasil) *(Rauwolfia serpentina)*
 - Chlorpromazine (Thorazine)
 - Promazine Hydrochloride (Sparine)
 - Azacyclonol (Frenquel)
2. For Use in Psychoneurotic Disorders
 - Meprobamate (Miltown, Equanil)
 - Atarax
 - Suavitil

The second in this group is chlorpromazine, which was first developed for study as an antihistaminic drug by the French.[2] It was found to be of value, also, in the vomiting of pregnancy, psychogenic digestive disturbances, various pain syndromes, and in the major psychiatric disorders, and it, like reserpine, has been widely used for the treatment of agitated and excited psychiatric patients, bringing about definite improvement in their mental reactions but still achieving no specific cure. It is also used to potentiate the effect of narcotics and barbiturates, and to aid in withdrawal of such drugs. Like reserpine, it may cause

some depression, and it also occasionally produces an obstructive type of jaundice. Both chlorpromazine and reserpine have been observed to bring about a Parkinsonian-like picture in patients who are taking them. The rigidity and tremor, however, disappear when the drugs are withdrawn. Patients receiving chlorpromazine should also be watched carefully for possible blood changes.

About a year ago another related compound, Sparine, or promazine, became available, and this seems to show some promise to have action related to that of chlorpromazine. It has, however, been studied very briefly thus far.[3]

A fourth drug which belongs in the list of the ataraxics is azacyclonol, or Frenquel.[4] This drug has no effect whatever on normal individuals and it is not indicated for minor neurotic disturbances, but has proved quite helpful in acute schizophrenic and confusional states, especially in postoperative confusion, and it has been used with some degree of success in cases of delirium tremens and in senile confusions. This drug has not been as widely used as reserpine and chlorpromazine, and there has been some disagreement on the part of various investigators regarding its effectiveness.

The other group of the ataractic drugs includes those which have no value in the psychotic patient but which are of help in the treatment of the neurotic or psychoneurotic patient. The best known of these is meprobamate, which is available under the trade names Miltown and Equanil.[5] This, which is a derivative of mephenesin, has been widely used in the United States during the past year for the control of nervous tension or "jitteriness," along with various symptoms which are subjective accompaniments of the anxiety which all of us have experienced at one time or another. These include tension headache, palpitation, a globus sensation in the throat, air hunger, anorexia, psychogenic digestive disturbances, "butterflies" in the abdomen, urinary frequency, muscle tension, and tremor. Meprobamate is no cure-all for these symptoms, but it is worthy of a trial for the relief that it may bring. I am afraid that this drug is being used too widely and oftentimes in too large a dose. Most patients should not or cannot tolerate more than 400 milligrams twice daily. The drug may cause an excessive relaxation of the musculature, which the apprehensive patient may consider to be an alarming weakness, and occasionally dizziness, too. It is a little too early to assess the value of this drug critically, but it seems to be most helpful where the patient has good insight into his condition and realizes that his symptoms are of nervous origin and are produced by stress. In such individuals the relief of the somatic complaints of his anxiety by this drug may be quite helpful.

With the popularity of meprobamate, other related drugs have been introduced. The Belgians have been studying a compound called Atarax, which is now available in this country, and the Danes one known as Suavitil.[1] It is still too early to make any definite statement about either of these. While these latter drugs are said to be nonhabit forming and are really not sedatives, tense, nervous individuals may develop a great deal of dependence upon them if used for long periods of time. They should only be given temporarily during periods of extreme stress, and should never be used indefinitely or in excessive doses. Obviously the feeling of equanimity, which Osler described so well, is something that we should all attempt to attain, but drug induced equanimity is not the answer. I am sure, however, that none of these is really potent enough to be called a "don't give a damn" pill, which some headline writer has called them.

Cerebral Stimulants

The above-mentioned drugs are of use in states of tension, excitement, confusion and mania, but are of no benefit in the depressed, melancholic patients or in states of hypersomnia. It has been well known during recent years that the various drugs of the amphetamine group, such as Benzedrine, Dexedrine, ephedrine, and Methedrine, are cerebral stimulants or mood elevators, or, in other words, euphorants or analeptics (Table II). They have been of some value in states of moderate depression, in relief of excessive fatigue, and in the treatment of narcolepsy. In some instances in which their stimulating effect causes undesirable symptoms such as palpitation and insomnia, they are combined with one of the barbiturates. Recently pipradol (Meratran) has been found to have a similar action as a mood elevator in de-

TABLE II. CEREBRAL STIMULANTS

Ephedrine, Amphetamine (Benzedrine), Dexedrine, Methedrine
Pipradol Hydrochloride (Meratran)
Methyl-phenidylacetate Hydrochloride (Ritalin)
Pentylenetetrazol (Metrazol)

pressed states and also as a stimulant in the treatment of narcolepsy.[6] Another related drug is Ritalin, which has a similar action and has been combined with either reserpine or chlorpromazine in the treatment of agitated depressions and in senile psychoses. It both abolishes the side effects of these depressing drugs and in itself acts as a cerebral stimulant.[7]

There is extensive literature which suggests that Metrazol has a somewhat similar action and that it is of special value in the treatment of senile and arteriosclerotic patients, in whom it is said to act as both a stimulant and a vasodilator; it has also been given combined with nicotinic acid for the latter purpose.[8] Studies carried out in state hospitals report improvement in the behavior and conduct of senile and arteriosclerotic patients, with lessening of confusion and agitation and improvement in memory and intellectual functions following the oral administration of Metrazol. We have been unable to duplicate this effect on our patients, however, but ours are mainly outpatients and are not as severely deteriorated. It is possible that the nursing care and supervision of the institutional patients who are given this medication is responsible for their apparent improvement.

Muscle Relaxants

The search for drugs to bring about muscular relaxation in spastic and related states has been fraught with difficulties (Table III). Curare and d-tubocurarine do cause such relaxation by raising the threshold of the motor end-plate to acetylcholine and thus preventing depolarization by this latter substance, and decamethonium and succinylcholine cause a persistent depolarization. Both of these drugs do produce muscular relaxation, but the limits of safety are such that they have to be used very carefully, and, furthermore, these preparations only act when given parenterally, and their action is very brief. Another drug, mephenesin, or Tolserol, also causes some muscular relaxation; this, however, is not by its peripheral action, but because it causes central depression of polysynaptic neural pathways by blocking internuncial motor neuron discharges.[9] This drug, too, is most effective when given parenterally, and its action when given orally is less than it was once thought to be; consequently, it has not proved to be very effective in states of marked spasticity. A new drug, zoxazolamine (Flexin), which is related to mephenesin in its effect on polysynaptic neural transmission, has been of more value than previously used drugs in the treatment of spasticity of various types.[10] This, given in doses of 250 to 500 milligrams three to four times a day, has been used in the treatment of the increase in tone associated with cerebral lesions, including hemiplegia, Parkinsonism, cerebral palsy, spastic paraplegia, and multiple sclerosis. Our own experience with this drug has shown it to be a moderately effective therapeutic agent in the treatment of spasticity, and it has been most helpful in cases of spasticity or spinal cord origin.[11] Its action is similar to that of mephenesin, but somewhat longer, and it is more potent. It is of interest that both mephensin and Flexin have been shown to decrease the electroencephlographic abnormality of petit mal epilepsy, but thus far neither of these has been found to be of definite therapeutic value in this condition.

TABLE III. MUSCLE RELAXANTS

Curare; d-Tubocurarine Chloride
Gallamine Triethiodide (Flaxedil)
Decamethonium Bromide (Syncurine)
Succinylcholine Chloride (Anectine, Quelicin)
Mephenesin (Myanesin, Tolserol)
Zoxazolamine (Flexin)

Drugs Used in Myasthenia Gravis

Two new drugs have recently become available in the treatment of myasthenia gravis, as well as one new drug for the diagnosis of this condition (Table IV). During recent years neostigmine has, of course, been the standard drug for both diagnosis and treatment. It does, however, have a very brief action. It has to be taken frequently in patients with severe involvement, and they have a definite "let down" when the effect of the drug is worn off. In the attempt to find a longer acting preparation, the various organic phosphates were tried, but their potential toxicity is such that they were never universally accepted. A year or two ago a homologue of neostigmine, pyridostigmine, or Mestinon, became available.[12] This drug, which is only about one-half as potent as neostigmine, has a much more prolonged action, and patients do not note the "let down" when its effect is worn off. It is noteworthy that not only does Mestinon

TABLE IV. DRUGS USED IN MYASTHENIA GRAVIS

Pyridostigmine Bromide (Mestinon)
Ambenonium Chloride (Mysuran)
Edrophonium Chloride (Tensilon)

have a more prolonged effect than neostigmine, with more even maintenance of strength, but it also has less toxicity and is much less apt to cause muscarinic effects.

Another new drug used in treatment of myasthenia gravis is ambenonium chloride, or Mysuran, whose anticholinesterase properties are from five to ten times that of neostigmine.[31] It also has a much more prolonged action than either neostigmine or Mestinon, but its toxic effects are somewhat between the two, and it may cause both parasympathetic overactivity and central nervous system stimulation. Its action is so prolonged that few patients need more than three to four tablets a day, and many of those receiving this new drug have no longer need to take medication before breakfast if taken before retiring at night. Because of its slow action the drug must be taken regularly, and patients cannot afford to let themselves "run down," since it takes too long for the next dose to "pick them up again." Both of these drugs are definite advances in the treatment of myasthenia gravis.

Edrophonium chloride, or Tensilon, has a direct action on the neuromuscular junction and has both anticurare and anticholinesterase effects. It has such a brief action that it is not of much value in the treatment of myasthenia gravis, but it has been shown to be a very effective drug in the diagnosis of this condition.[14] One cubic centimeter (10 milligrams) injected intravenously in the patient with myasthenia gravis is followed by improvement in the strength of the weak muscles within thirty seconds, and this increases to its maximum within one to ten minutes. The action, however, is very brief; strength begins to decline after ten minutes, and the total effect of the drug lasts less than an hour. Actually Tensilon does not give any definite improvement over the older diagnostic test with the use of neostigmine methylsulphate, but it affords a quicker test, and may be of value in certain patients who may for some reason or other fail to respond to neostigmine.

Drugs Used in Epilepsy

There has been a constant attempt during the past twenty years to find more effective drugs in the treatment of epilepsy (Table V). Actually, the drugs that are in standard use at the present time for the grand mal or major seizures are quite effective. These are the barbiturates, principally phenobarbital, Mebaral and Gemonil, and the hydantoinates, namely Dilantin and Mesantoin. Because the former drugs all have some sedative and hypnotic effects, and the latter ones may produce side effects or toxic reactions, there have been attempts to synthesize related compounds. Many of the hydantoinates that have been used experimentally, however, as well as a few that were on the market temporarily, had a potential toxic effect on the blood-forming system, and consequently they are no longer used. One of the two that I have mentioned, Mesantoin, does to a certain extent have such potential effects as well, but in many patients it may be substituted for Dilantin if the latter drug is not effective or cannot be tolerated. There is one additional hydantoinate, Peganone, which is 3-ethyl, 5-phenyl hydantoin. This seems to produce few side effects; it does not cause the gingival hypertrophy that not infrequently develops in children who use Dilantin, and thus far at least no blood changes have been reported.[15] It is less potent than Dilantin and has to be given in a somewhat larger dose, and possibly 500 milligrams three times a day may be necessary to replace 100 milligrams of Dilantin three times a day. This drug is still an experimental one, but it has been investigated quite widely, and will undoubtedly be released for general use rather soon.

TABLE V. DRUGS USED IN EPILEPSY

Peganone (3-ethyl, 5-phenyl hydantoin)
Primidone (Mysoline)
Methylphenylsuccinimide (Milontin)
Acetazolamide (Diamox)

Primidone (Mysoline) has been used quite extensively during the past few years.[16] It is said to be effective in both grand mal and psychomotor seizures, although experience shows that it is not quite as effective in the former as Dilantin nor in the latter as Phenurone, although it is less toxic than Phenurone. It apparently has no serious toxic effects, but it may cause drowsiness, gastrointestinal symptoms, ataxia, and, in a few patients, delusions. It is certainly a drug that can be tried in cases where the more usual ones prove unsatisfactory.

If one uses the long-accepted clinical classification of epilepsy as to the grand mal, petit mal, and psychomotor varieties, it is the latter two that have been the most difficult to control by drug therapy. Phenurone, which cannot be considered a new drug and which some people hesitate to use be-

cause of its toxic potentialities, and possibly Mysoline, are the principal drugs that seem to have some specific action in the psychomotor seizures. The drugs of the dione group, namely Tridione (Trimethadione) and Paradione (Paramethadione) were the most effective drugs up until a year or two ago, and possibly still are the most effective ones, for petit mal seizures. Tridione seems to be more helpful than Paradione, but it is potentially more toxic, especially on the bone marrow. A few years ago an entirely different form of pharamacologic preparation, methylphenylsuccinimide (Milontin), was brought out for the treatment of petit mal seizures, and is undoubtedly a helpful drug, although we have not been too enthusiastic about its effectiveness in our clinic, and have been interested in seeing that the later reports are less optimistic than the original ones.[17] It must be given in a rather large dose, but its toxic effects are minimal.

It has recently been brought out that acetazolamide (Diamox), a carbonic anhydrase inhibitor, which was originally used as a diuretic in the treatment of congestive heart failure, had anticonvulsive properties and seemed to be especially effective in the treatment of petit mal epilepsy.[18] At one time it was felt that this drug, which causes profound metabolic changes and affects the acid-base balance of the blood and body fluids, might act in a way similar to the ketogenic diet which was once advocated for petit mal epilepsy. It has been observed, however, that the beneficial effects are not clearly correlated with either the dosage of the drug or the level of the carbonic antihydrase activity in the blood and, therefore, it has been suggested that it may act directly on the metabolism of the cerebral neurons.[19] Some authorities have suggested that Diamox may be helpful in all types of epilepsy, and in one report evidence is brought forth that the patient who stands the best chance of being helped by it is the one whose electroencephalogram not only exhibits a spike-wave dysrhythmia but also displays prompt response to the alkalosis caused by overventilation. Although there have been some rather enthusiastic reports on this action of Diamox, our own results seem to show that it is not of value when used alone. We have observed a few patients in whom the addition of the Diamox to the previous anticonvulsant therapy seemed to bring about a definite lessening of the frequency of the seizures. Diamox is a sulfonamide derivative, and it is of interest that a case of fatal bone marrow depression after its use was recently reported.[20] I would state that its use is limited, but it is perhaps worth considering as an adjuvant to more established pharmacologic agents.

Some of the cerebral depressants and tranquilizers as well as some of the muscle relaxants have been used in epilepsy. It is believed that certain types of seizures, principally those of the petit mal variety, are of deep level origin; Penfield refers to them as "centrencephalic." It is probable that reserpine, chlorpromazine, mephenesin, zoxazolamine and meprobamate, all act on the upper brain stem and lower diencephalon, and one might expect them to be effective in certain types of epilepsy, or at least to have a potentiating action. It has been observed that both mephenesin and zoxazolamine may depress the petit mal wave pattern in the electroencephalogram, and there have been statements that the latter drug, as well as meprobamate, has been of value in the treatment of petit mal epilepsy.[21] However, while these drugs probably do inhibit the excessive spread of impulses in the subcortical brain masses, they have not as yet shown to be of practical value in the treatment of epilepsy.

Drugs Used in the Treatment of Parkinsonism

There have been many drugs brought out during recent years which have been advocated for the relief of the rigidity and tremor of Parkinson's disease and related conditions. Most of them are synthetic drugs with an atropine-like effect, and they are also related to certain of the antihistamines. A list of a few of these is shown in Table VI. On the basis of our own experience, I would say that Artane and Pagitane are the most effective of the group and the least apt to be accompanied by side effects or toxic reactions.[22] With all, however, there may be side effects similar to those which accompany the use of atropine or hyoscine, namely, dry mouth, blurred vision, nausea, and dizziness, and their use in the elderly is

TABLE VI. DRUGS USED IN PARKINSONISM

Trihexyphenidyl (Artane)
Caramiphen (Panparnit)
Cycrimine (Pagitane)
Benztropine (Cogentin)
Ethopropazine (Parsidol)
Procyclidine Hydrochloride (Kemadrin)

sometimes followed by mental confusion and retention of urine. Inasmuch as the patient with Parkinsonism may show a varying response to drugs, it is often worth while to try more than one of these, either alone or in combination, or with one of the antihistamines, usually Benadryl or Thephorin. It should be borne in mind that when any of these "newer" synthetic drugs is used, the dosage should be built up very slowly; by doing this it may be possible to avoid side effects on toxic reactions.

Miscellaneous Drugs

There are many other new drugs that are of interest in neurology, but their range of use is limited and I shall just mention a few briefly in passing (Table VII). The treatment of lead poisoning, both lead encephalopathy in infants and lead neuritis in adults, has changed radically during recent years. The chelating agents have been used in industry for some time, but it has been found fairly recently that they are of value in various intoxications in man, and Edathamil, or calcium disodium versenate, is now an important tool in the treatment of lead poisoning and some other heavy metal poisonings.[23]

TABLE VII. MISCELLANEOUS DRUGS

Edathamil Calcium-Disodium (Calcium Disodium Versenate)—Lead Poisoning
Dimercaprol (BAL)—Wilson's Disease and Heavy Metal Intoxications
Procaine Amide—Myotonia Congenita and Dystrophica
Cortisone and Corticotropin (ACTH)—Acute Exacerbations of Multiple Sclerosis (especially ocular), Polymyositis, Guillain-Barré Syndrome

Dimercaprol (BAL) has been used for some time in the treatment of heavy metal poisonings, especially those associated with ingestion of or exposure to arsenic, gold, mercury, and possibly lead. It has fairly recently been shown that Wilson's disease, or hepatolenticular degeneration, is associated with a disturbance of copper metabolism in the body, and there have been some reports of the relief of the symptoms of Wilson's disease by the use of Dimercaprol.[24] More recently the versenates, too, have been used in the treatment of Wilson's disease. It is too early to know how effective either of these agents will be, however, and from our limited experience with them, we do not have the enthusiasm that has been reported elsewhere in the literature.

Another drug that might be mentioned briefly in passing is procaine amide, which has recently been advocated in the treatment of myotonia dystrophica.[25] Quinine has been shown to be of some value in relieving the myotonic manifestations of this disease, and of myotonia congenita as well, but it must be given in rather large doses and many patients are unable to tolerate such administration because of the development of cinchonism. Procaine amide seems to relieve the prolonged muscular contractions that are a part of this disease, and therefore to diminish to a certain extent the motor disability. It is doubtful, however, that it in any way prevents the gradual progression of this disease.

Cortisone and corticotropin (ACTH), which are used so widely in medicine in general, do, of course, have their place in neurologic therapy also, but it must be stated that there are very few disorders of the nervous system in which they are of proved specific therapeutic value. They are used frequently for exacerbations of multiple sclerosis, but seem to be most effective in those exacerbations characterized by ocular difficulties, mainly retrobulbar neuritis and acute optic neuritis. Even in these it is difficult to assess their effectiveness, as these sometimes are self-limited. They are also used in the neurologic manifestations of collagen diseases, principally periarteritis nodosa and disseminated lupus, and most specifically in the condition known as polymyositis, which is being diagnosed more frequently at the present time and is sometimes mistaken for a rather rapidly progressive myopathy or dystrophy. They are also used fairly regularly, and probably of value, in the treatment of the Guillain-Barré syndrome, or polyradiculoneuritis, and have been said to be of value in the immediate therapy of apoplectic strokes, but this latter has not been confirmed.

Anticoagulant Therapy in Cerebrovascular Disease

I would be remiss in this discussion of "Newer Drugs in Neurology" if I did not make some mention of the recent interest, or possibly renaissance of interest, in the use of anticoagulant drugs in cerebrovascular disease. The widespread incidence and poor prognosis in cerebrovascular disease has always been a matter of concern to the neurologist and the physician in general, but specific modes of therapy have not been available. It has been especially important to try to find some specific method of treating the acute cerebral

infarct which is secondary to either thrombosis or embolism of one of the major cerebral vessels. Vasodilators of various types have been widely used, but there is little clinical evidence and no experimental evidence that any of them causes actual dilatation of the cerebral vessels. Experimentally, inhalations of carbon dioxide do cause cerebrovascular dilatation, but they likewise reduce the blood flow and have not proved to be of very much therapeutic value. Cortisone, as was just stated, has also been advocated in acute strokes, but its effectiveness, too, is doubtful.[26] A few years ago there was a great deal of enthusiasm for stellate ganglion block in cerebral thrombosis and embolism, but this enthusiasm has fast faded.[27] While there are still a few physicians who advocate this procedure and who report definite benefit, by far the majority who have studied their cases closely feel that the procedure is not of real help, and experimentally, too, there is no evidence that a cervical sympathetic block dilates the cerebral vessels, or especially that it dilates those vessels which are occluded by either a thrombosis or an embolism, or that it in any way increases the blood supply in an infarct resulting from such obstruction.

TABLE VIII. CURRENT INDICATIONS FOR ANTICOAGULANT THERAPY IN CEREBROVASCULAR DISEASE

Intermittent Insufficiency of Basilar Arterial System
Thrombosis within the Basilar Arterial System
Intermittent Insufficiency of Internal Carotid System
Thrombosis of Internal Carotid Artery
Recurrent Thromboembolic Episodes of Cardiac Origin

Theoretically at least, anticoagulant drugs such as Heparin and Dicumarol might be of value in cerebrovascular occlusions as they are in occlusions of the coronary arteries.[28] They have been used hesitatingly, however, because it has always been feared that the infarct secondary to the occlusion may be a red, or hemorrhagic, one rather than a white, or anemic, one, and the use of anticoagulants in the presence of the hemorrhagic infarct may cause further bleeding and therefore cause a worsening rather than an improvement in the patient's condition. It has recently been advocated, however, that anticoagulant therapy is of value in certain types of cerebrovascular disease (Table VIII). These are the following: intermittent insufficiency within the basilar arterial system or actual thrombosis of the basilar artery or one of its branches; intermittent insufficiency within the internal carotid arterial system or actual thrombosis of one of the internal carotid arteries; and recurrent thromboembolic episodes of cardiac origin, that is, secondary to subacute bacterial endocarditis, vegetative heart disease, or heart disease associated with auricular fibrillation.[29] In each case, the general contraindications to anticoagulant therapy, both absolute and relative, must be considered. Careful diagnosis of a particular type of cerebrovascular involvement is essential, and one must be certain that the vascular disease is either thrombotic or embolic and not hemorrhagic. The immediate and late course of the patient must be followed carefully, with frequent determinations of the prothrombin time. There is definite evidence, however, from centers where this has been carried out on fairly large series of patients and from our own brief but, we think, careful studies on a small number of patients, that the use of anticoagulants is of definite therapeutic value in certain patients with cerebrovascular disease, especially of the types I have mentioned. Furthermore, there is evidence to suggest that this technique is of prophylactic value and decreases the incidence of recurring episodes of either thrombotic or embolic origin.

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Sudden Unexpected Death

By Julius Bauer, M.D.
Los Angeles, California

SUDDEN unexpected death is no rarity. According to our late medico-legal expert Louis Regan,[1] 15 to 20 per cent of all deaths in the U. S. result from violence or occur unexpectedly from obscure causes. About one murder each year for every 10,000 living persons is officially recognized. Interest in and prevention of this type of sudden unexpected death concern judicial and law enforcing agencies and, to a degree, also psychiatrists. We are interested today in cases which occur without an evident extrinsic etiologic factor and whose pathogenesis may or may not be satisfactorily explained at autopsy. Let us first review a few instances of the first category, that is, cases of sudden unexpected death with clinical explanation and autoptic confirmation.

If we use the term "unexpected" we have to realize that there are different grades of unexpectedness. It may be absolute or only relative with regard to the time of the sudden death. If an apparently healthy person drops dead without premonitory symptoms of coronary disease, then his sudden death due to coronary occlusion was absolutely unexpected. If a person had had one or several attacks of myocardial infarction previously, or if he had been known to suffer from coronary insufficiency, his sudden death was unexpected only at the time of his sudden death; it could have been expected, however, at any time.

Some thirty-five years ago I was taking the history of a man in his fifties with symptoms of gallbladder disease. When I started the physical examination, he suddenly collapsed, lost consciousness and died within the next hour of a cerebral hemorrhage. This was absolutely unexpected. If I had known previously that the man had atherosclerosis and hypertension his death would have only been relatively unexpected. The sudden death from subarachnoid hemorrhage of one of Harvard's most outstanding clinicians some years ago was absolutely unexpected. Sudden death from a ruptured, previoulsy known aortic aneurysm can be foreseen but may occur at any time unexpectedly.

Similar situations of a relatively unexpected sudden death are numerous. I mention only pulmonary embolism due to a fibrillating heart or in phlebothrombosis, which may develop and escape our attention after surgical procedures or after delivery. Allergy is always a potential danger. Yet anaphylactic shock following injection of corticotropin is absolutely unexpected, especially after it had been injected twice before to combat asthma of the same patient. Capillary congestion and hemorrhages in lungs, kidneys and adrenals showed that the sudden unexpected death actually was due to anaphylaxis.[2] Sudden death during quinidine therapy is not particularly rare. Restoration of rhythmic atrial contractions may lead to embolization by mural thrombi which had developed during the preceding time of atrial fibrillation. This type of sudden death, however, had been confirmed only once in ten autopsied cases. In the nine other instances, it had to be interpreted as "quinidine shock," with circulatory collapse and respiratory paralysis.[3]

At one of my ward rounds, the resident presented a young woman with presumptive diagnosis of hysteria. She complained only of intense dizziness on changing her position, and physical examination had been completely negative. My suspicion of a cyst in the fourth ventricle suggested by the definite dependence of dizziness on change of position was confirmed by a sudden (relatively) unexpected death on the following day. The cyst was found on autopsy.

Sudden death by suicide may be absolutely unexpected in a healthy person, apparently normal mentally; it would be only relatively unexpected as to the time of its commitment if the person had been suffering from an incurable disease or from severe mental depression. Although suicide represents sudden death by an extrinsic force, it is an intrinsic mental factor that puts this force into action.

Sudden unexpected death is known to occur in athletes after extraordinary exertion. The most famous instance is the case of the Greek Marathon runner who dropped dead after having delivered his message. Such cases of sudden fatal heart

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failure apparently are brought about by a mechanism elucidated by Raab.[4] He found excessive amounts of epinephrine-like substances in the heart muscle of a young athlete, and believed that acute poisoning with epinephrine-sympathin-norepinephrine accounted for ventricular fibrillation and sudden death. The great importance of the constitutional factor in such rare events is well illustrated by the sudden death of identical twins who were outstanding athletes.[5] One of the brothers was autopsied and was found to have a hyperplastic thymus and narrowness of the descending aorta. Furthermore, he had coronary arteriosclerosis and hydronephrosis affecting the left kidney. As a matter of fact, coronary arteriosclerosis with subsequent thrombosis may cause an unexpected sudden death even in young individuals.

Hypoplasia of the coronary artery and of the musculature of the left ventricle was found after the sudden death of a thirty-six-year-old woman who had been suffering from attacks of paroxysmal ventricular tachycardia with Adams-Stokes syndrome.[6] Unexpected sudden death without anatomic findings except for hypoplasia of the aorta occasionally has been reported in the past.[7]

Sudden unexpected death is a threat to which carriers of sickle-cell hemoglobin are exposed. Whether these persons, almost exclusively of the Negro race, carry only small amounts of the abnormal S-hemoglobin and may have been asymptomatic and healthy with the sickle-cell trait (sicklemia) only, or whether they had been suffering from sickle-cell anemia since childhood, sudden unexpected death may terminate their life prematurely by vascular occlusion and thromboses or by hemorrhages in vital organs.[8]

So far, we have spoken of instances of sudden unexpected death that present no great riddle at autopsy. The pathologist is able to demonstrate the presumptive cause of death and to confirm the interpretation offered by the clinician. The problem of sickle-cell disease, however, leads us also to the second category of sudden unexpected death which remains unexplained at autopsy. The pathologist may or may not register some abnormal findings concerning the morphology of the dead person; he fails, however, to offer a satisfactory explanation of the pathogenesis of such death. A functional disturbance must have been responsible, the elucidation of which can only be the job of the clinician, not of the pathologist.

Cases of this kind have attracted the attention of the medical profession and, of course, particularly of legal medicine for a long time. In the past era of overwhelming preponderance of pathologic anatomy, as contrasted with pathologic physiology, it might have been understandable that certain unusual anatomical findings at autopsy could be proclaimed and accepted as at least legally sufficient explanation of cases of sudden unexpected death, although the relationship of those findings to the pathogenesis of death remained obscure. Status thymicus, status lymphaticus and thymolymphaticus (A. Paltauf 1889), and, some twenty years later, status hypoplasticus (Bartel) served as scapegoats to preserve the supremacy of pathologic anatomy. Experiences of the first World War, however, taught a different story. Sudden death without previous disease due to extrinsic causes of warfare prevents the very rapid involution of the normal thymus and lymphatic apparatus brought about by any fatal disease. What had been considered as status thymicus and lymphaticus before, became recognized as normal findings in persons who died suddenly by violence, not by disease. There are, to be sure, rare cases of actually hyperplastic thymus and hyperplastic lymphatic tissue, but these morphologic findings do not help us to understand the proclivity of their carriers to sudden unexpected death. Nor do morphologic findings, such as hypoplasia of the aorta or the adrenals and developmental defects of various organs *per se*, contribute to our understanding.

And yet, it is apparently not pure coincidence if such anatomical findings can be observed more frequently in persons who died suddenly and unexpectedly without autoptic explanation of their death. Similar findings of developmental defects and aberrations are not uncommon in carriers of sickle-cell hemoglobin.[9] This is why sickle-cell disease, with its propensity to sudden unexpected death, may occasionally also fall into this second category, lying beyond the competence of the pathologist. It has been common experience that carriers of sickle-cell hemoglobin are what we call poor medical and surgical risks. To understand the pathogenetic mechanism involved in this category requires a much broader biologic viewpoint.

Sickle-cell hemoglobin is a hereditary, that is, genetic, deviation from the norm. It is an abnormal constitutional trait, and, as such, often associated with other abnormal constitutional characteristics. Sickle-cell disease is often not merely a

single genopathy but a polygenopathy—a multiple, genetic aberration from that average genetic type in man which represents the best adjustment to his environment so far achieved by biologic selection. Marked deviations from this state may involve diminished adjustment, lowered resistance, greater morbidity, and often predisposition to unusual disease processes emerging from the abnormal or defective genes.[10]

This concept is the clinical application of a general biologic law first recognized by Tom H. Morgan, the greatest American geneticist. Single genes usually have multiple effects which is known as pleiotropism of genes. One abnormal gene which may be recognized as a trifling and apparently *per se* insignificant deviation from the norm of a superficial character may affect the viability and vitality of the whole organism. This biologic law must be referred to, in my opinion, in order to understand the frequent findings of various developmental defects, malformations, and hypoplasias at the autopsy of persons who had been victims of sudden unexpected death, which remained unexplained with the tools of pathologic anatomy. In a recent study on unexpected death in early life Arey and Sotos[11] found eighteen cases with various malformations, particularly, but not exclusively, of the circulatory system, such as septum defect, Fallot's anomaly, abnormal pulmonary venous return, mongolism, and others. In spite of these autoptic findings, the mechanism of the unexpected death was not clear. I subscribe to the conclusion of the authors who recommend omitting the term "status thymolymphaticus" from medical writings, however, only with the reservation that it is meant to serve as explanation of sudden unexpected death.

What, then, is the explanation offered by pathologic physiology? There can hardly be any question that sudden unexpected death of this, our second category, that remains unexplained at autopsy, must be caused by arrest of the heart action. This can be an actual asystole—cardiac standstill—or ventricular fibrillation. What can bring about such an event? Excessive stimulation of the vagus nerve has been known to arrest the heart action under certain circumstances. A blow to the solar plexus or the testes, pressure on the carotid sinus or sudden dilatation of the rectum may be immediately fatal by a reflex action on the vagus. Cardiac arrest was recently reported due to traction-reflex from the stomach, occurring twice on the same patient during gastrectomy for carcinoma of the pylorus.[12]

Stimulation of the cardiac sympathetic nerves augments the amount of norepinephrine in the heart muscle of experimental animals, and injected norepinephrine, and even more so, epinephrine are eagerly absorbed by the heart muscle and stored in an active form in large quantities. These findings of Raab[13] corroborate his previously-mentioned explanation of sudden unexpected death by ventricular fibrillation of athletes after excessive physical exertion.

Exaggerated irritability of the intracardiac conduction system, with potential establishment of disorderly discharging foci, may occasionally account for anatomically unexplained fatalities. Sudden unexpected death in the course of an attack of paroxysmal tachycardia is rare.[14] If cardiac arrest occurs in an apparently perfectly healthy person with an asymptomatic Wolff-Parkinson-White syndrome, it is certainly absolutely unexpected and anatomically unexplained.[15]

It is conceivable that a severe blow to the autonomic centers may become acutely fatal whether it comes from outside or inside. An electric current passing through these centers may be such an outside blow and account for a sudden, relatively unexpected, death, a risk that is involved in the administration of electroshock therapy.[16] A blow, that is, intense stimulation of the vagal or cardioaccelerator centers or both, may occasionally occur from inside. The autonomic nervous system is a mediator between the emotional and somatic sphere of an individual. It is the legitimate transmitter of emotions into somatic manifestations. These may be vasomotor, secretory, visceromotor, and, particularly, cardiomotor in type. In rare cases, a fatal catastrophe due to cardiac arrest is a possibility if the emotional impact is exceptionally heavy and the responsitivity of the autonomic centers, and that of their most vital target organ —the heart, is excessive.

It stands to reason that highstrung, nervous, hypersensitive individuals, or those with damaged hearts, have a greater chance than do calm, emotionally-balanced persons, to suddenly succumb to an overwhelming emotional impact,[17] be it acute or of long standing. An example of this latter type is the sudden death under voodoo influence in primitive, uncivilized populations. Anxiety states due to belief in sorcery and magic used by one's adversaries have recently been reported as an

almost "normal component of the sociocultural situation in Nigeria."[18] Pathologic exaggeration of such a perpetual state of mind, not hampered by reasoning, is well known as a not uncommon cause of death. This form of death from magic and auto-suggestion, without any demonstrable pathologic cause, has even been called "thanatomania" (Ackerknecht).[18]

Similar to voodoo influence in man is death of rats under restraint or in situations in which they are helpless.[19] Timid, wild rabbits with highly labile autonomic nervous systems may develop typical hyperthyroidism if exposed to fright situations. Capture alone may elicit severe shock and even sudden death.[20]

"Death from broken heart" although always regarded with utmost skepticism, could never have been rejected as a possibility. Cases of sudden unexpected, and anatomically unexplained, death after an emotional shock, after slight physical punishment accompanied by hostile resentment and sense of humiliation, or in a state of great fright, have been occasionally reported.[7] Such a case was, for instance, a soldier who dropped dead after having been slapped in the face by a sergeant in the old Austrian army. I saw a middle-aged, extremely apprehensive woman die suddenly in the waiting room of the nose and and throat department in Vienna before she had been led into the operating room for an ambulatory minor operation of the nose. The autopsy revealed nothing to elucidate the case. Similar instances have been observed in several members of a family, which induced French authors to speak of a "diathèse de mort subite." The following observation, made in the Los Angeles County Hospital two years ago, illustrates well how sudden unexpected death may result from an overwhelming emotional storm.

Case Report

A twenty-seven-year-old, intelligent Negro girl from Arkansas had been suffering from occasional asthmatic attacks since the age of three years, often occurring with upper respiratory infections. At the age of seventeen, in 1945, she delivered an illegitimate baby. Since the time of pregnancy the asthmatic attacks became more frequent and severe. She left her home town and moved to California. In Los Angeles she was treated in the outpatient clinic of the County General Hospital. Several times she had to be admitted to the medical service for treatment of severe episodes. The allergy clinic found her to be sensitive to house dust and grass. Physical examination of the patient never revealed anything abormal except the typical wheezing respiration, prolonged expiration, and the characteristic rhonchi during attacks. Routine laboratory examinations were likewise negative. There were 4 per cent eosinophils among 6,700 white blood corpuscles. She responded to the usual treatment but needed epinephrine with increasing frequency. Her behavior, however, left hardly any doubt that a great deal of psychogenic overlay was an important pathogenetic factor. She was suspicious of everyone and kept asking the doctors if they thought she was crazy. She was extremely religious and her brother stated that she had frequent dreams about God and that she wanted to go to the hospital to die. Twice she had been advised to consult the psychiatric clinic but she failed to keep her appointment.

It was obvious that a deep psychogenic element was involved in the pathogenesis of her asthma and that psychiatric inquiry was imperative. The intern, Dr. Harry Roth, in charge of her case, first tried in vain to gain the patient's co-operation, but finally he succeeded. We shall re-enact this scene as it actually took place, from the very accurate notes of Dr. Roth. It should be emphasized that the patient showed no evidence of asthma before and during the interview.

The most dramatic events that followed cannot be re-enacted. The patient lost consciousness, had a generalized tonic seizure, and within two minutes respiration stopped and there was no pulse or blood pressure. Artificial respiration was instituted immediately, and the airways appeared to be free. Vasoxyl, caffein, and, intracardially, epinephrine were administered without success. After a few minutes Dr. Roth took a heroic step and performed a thoracotomy on the ward in order to institute cardiac massage. The heart showed no fibrillation. Continuation of cardiac massage for several minutes did not revive the patient. The tragedy was closed.

Unfortunately, an autopsy was not done because the family refused to give permission. What, then, caused the sudden unexpected death of this patient? She had no asthmatic fit preceding her death, there was no evidence of heart disease or embolism or of a cerebral accident, and there was no ventricular fibrillation. She died from cardiac standstill which occurred during a tremendous emotional turmoil when the patient had ventilated her carefully hidden secrets for the first time. There can hardly be any doubt that the interview, not the asthma, had been the killer. Not the disease—bronchial asthma—but rather the personality behind the disease, with its constitutional background and life experiences, proved to be the actual lethal factor. The interview acted as the trigger.

Summary

1. Sudden unexpected death without evidence of an extrinsic etiologic factor occurs frequently, and, in the great majority of cases, can be explained clinically and the explanation confirmed at autopsy.

2. Unexpectedness of sudden death may be absolute or only relative—with regard to the time of the sudden death. Relatively unexpected sudden death may occur, for instance, in a person with known coronary artery disease, aneurysm, phlebothrombosis, severe allergy, and sickle-cell disease.

3. There are infrequent instances of unexpected sudden death that remain unexplained at autopsy and can be understood only as result of disturbed function rather than altered structure.

4. Autopsy may or may not reveal abnormal findings concerning the morphology of the dead person, which fail, however, to offer a satisfactory explanation of the etiology and pathogenesis of the sudden unexpected death. Status thymicus, lymphaticus or hypoplasticus with hypoplasia of the aorta or adrenals, and various developmental malformations are such findings.

5. Sudden unexpected death must have occurred as result of cardiac arrest with or without preceding ventricular fibrillation. Excessive stimulation of the vagus nerve or cardiac sympathetic nerves and excessive irritability and responsivity of the heart as their target organ may bring this about. The abnormal individual propensity to cardiac arrest without cardiac disease may be linked with various morphologic developmental abnormalities on a genetic basis.

6. Severe blow to the autonomic nervous centers may derive from an intense emotional disturbance or acute shock. Cases of sudden unexpected death due to this pathogenetic mechanism are well known (voodoo—in primitive, uncivilized populations, captured timid wild rabbits, etc.).

7. The case of an unexpected sudden death during a psychiatric interview of a twenty-seven-year-old girl with bronchial asthma has been reported in some detail.

NEWER DRUGS IN NEUROLOGY

(Continued from Page 728)

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The Growth and Development of Mentally Retarded Children

By Warren A. Ketcham, Ph.D.
Ann Arbor, Michigan

THE State of Michigan is experiencing a severe strain on its available facilities for mentally retarded children. With a view toward helping the situation, the University of Michigan has inaugurated a longitudinal study of the growth and development of severely retarded children. The first two years of the study are being financed by an allocation from the special appropriation from the Michigan Legislature for Research and Service in the Utilization of Human Resources. The over-all purpose of the study is to provide a basis for improved educational programs for severely retarded children.

During the 1956-57 school year data were collected on the physical, mental and social growth of 103 severely retarded children and the causes for their retarded condition. This paper will summarize the data and make suggestions regarding the importance of the findings for legislators, teachers, parents and others who are concerned with the care and education of retarded children.

Setting and Subjects of the Study

The subjects of the study attend the Coleman School, Inc., in Detroit. The Coleman School accepts children between the ages of five and eighteen years who have been excluded from regular or special classes in their own school districts in the Metropolitan Detroit Area. In general the pupils at the school are not retarded to the extent of needing custodial institutional care. This is the type child whose social and educational needs have been discussed frequently throughout Michigan during recent years.

Physical Growth of Retarded Children

Data from this study show that, when compared with brighter children of the same age, the children who make up the sample are shorter and weaker. At twelve years of age the average height age of children at the Coleman School is a full year less than the average height age of children enrolled in the University School at Ann Arbor. The deficiency in muscular development, as measured by strength of wrist grip, is much greater than the deficiency in height. The average grip strength age of the retarded children at the Coleman School is four years less than the average grip strength age of children of the same age at the University School.

The importance of the physical development of retarded children is frequently overlooked by parents, teachers, and others. The lack of physical size and muscular strength is frequently accompanied by poor motor co-ordination. The combination gives an immediate impression of inadequacy and places retarded children at a distinct disadvantage with both adults and children. This disadvantage is increased when a lack of intelligence becomes more obvious. At five years, the proper age for school entrance, the retarded child looks and behaves physically like a child of three or four. It is no wonder that a prediction of no learning and a feeling of despair comes so easily to those who face the problem of caring for and teaching children who are obviously so lacking in the basic characteristics of average and bright children.

Mental Growth of Mentally Retarded Children

The idea that most retarded children enjoy some mental growth may come as a surprise to many persons. Figure 1 shows the superiority in mental development of the older subjects of this study. Figure 1 also shows that individual differences in mental age increase with chronological age. This is precisely what happens among brighter children. The constant increase in individual differences has not been generally recognized among retarded children. As a result, the brighter children among the retarded have gone

Dr. Ketcham is Associate Professor of Education, University of Michigan.

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unrecognized because they are viewed as part of a homogeneous group which cannot learn.

The evidence of mental growth among the subjects of this study seems worthy of straightforward

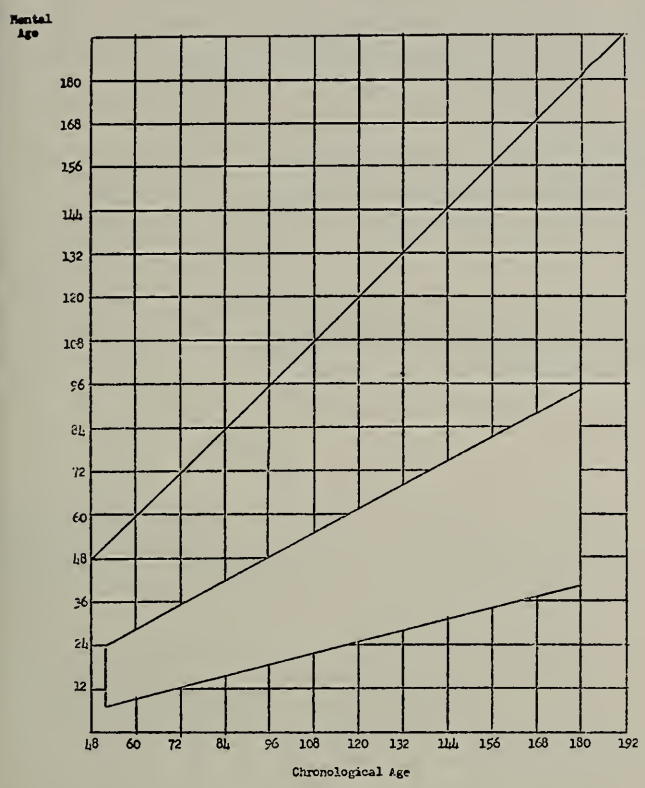


Fig. 1. Comparison of the variation and level of mental age between severely retarded children of different chronological age.

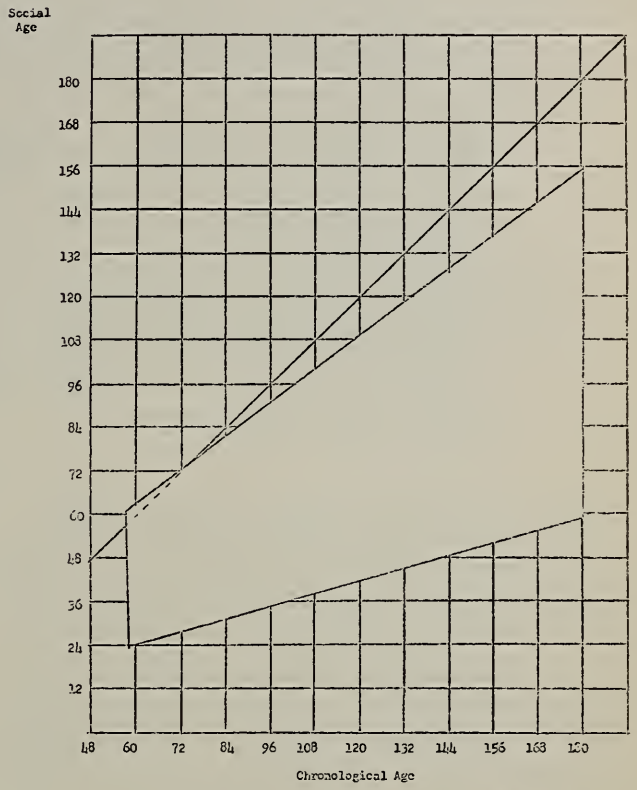


Fig. 2. Comparison of the variation and level of social age between severely retarded children of different chronological age.

but cautious consideration. The amount of mental growth is small for all of the children, and for a few it is very small. The mental ages of the children range from one-fourth to one-half their chronological ages. The brightest child has a mental age of seven and one-half years at fifteen years of age. If the child continues to grow mentally until he is twenty-two years old, he will have a mental age of eleven years. Certainly he will not be a completely adequate adult, but, all other things being equal, he need not be a completely dependent and socially useless person. A person with a 100 IQ and a mental age of eleven years is usually eleven years old and in the sixth grade. Anyone who has watched average sixth graders knows that they are capable of a great deal of simple, but to a large extent, independent living. They have enough speech to communicate, the ability to read the newspaper, the ability to play and work co-operatively, and the desire to be useful and productive.

We do not know at present how many severely retarded children would profit from a carefully planned educational program until they are 20 to 25 years old. A number of studies suggest the possibility of encouraging results. According to Freeman and Flory[1]:

> . . . children of mediocre ability continue to advance intellectually during the period of later adolescence, as rapidly if not more rapidly than do bright children, and they continue to advance to at least as late an age . . . children or youth of lesser promise may profit by continued education as much if not more than their precocious and brighter comrades. . . . The burden of proof is on the contention that the inclusion of children of lower ability would alter the picture. (p. 159)

Sarason[2] has this to say regarding the findings of a number of follow-up studies of retarded children:

> The misleading nature of diagnoses based on test scores is further revealed by the studies which have followed into adult life children who had been diag-

nosed as mentally defective when in grade school. . . . These studies showed that the academic achievement, economic self-sufficiency, and social adjustment of these groups were surprising in light of their original intellectual classification. (p. 107)

was then examined by a neurologist from the University Hospital. On the basis of data from the questionnaire and the results of his examination, the neurologist established the cause of each

TABLE I.

CAUSES OF MENTAL RETARDATION AMONG 103 SEVERELY RETARDED CHILDREN

Cause	Description	Percentage of Cases
Structural defect (cerebral dysgenesis)	Brain failed to develop	25%
Familial	Intelligence normal for the family to which the child belongs	2%
Hereditary diseases (Tay-Sach's, von Recklinghausen's, Phenylpyruvia)	An inherited disease caused mental retardation	6%
Pre-natal damage (German measles, Rh incompatability, etc.)	Disease damaged the child before birth	10%
Birth damage (Prematurity, difficult delivery, anoxia, etc.)	Difficult delivery	20%
Post-natal damage (injury, encephalitis, meningitis)	Accident and injury during infancy and early childhood	8%
Clinical syndrome (mongolism, cretinism, and metabolic dysfunction)	Children whose appearance and health condition are invariably accompanied by mental retardation	18%
Cranial anomolies (hydrocephaly, macrocephaly, microcephaly, etc.)	The brain was damaged by a condition within the skull	7%
No known cause or conflicting diagnosis		4%

Social Growth of Mentally Retarded Children

The range of differences in social age at chronological ages five through fifteen for retarded children at the Coleman School is presented in Figure 2. As is true for mental age, the social ages of the older children are more advanced than those of the younger children. The differences among the older children are likewise greater than among the younger children. The social ages of the children do, however, exceed their mental ages.

Data on the social ages of the subjects of this study indicate that they are more capable of learning social skills than is commonly recognized. There are real limits, but nevertheless the children are capable of learning many of the simple niceties of life which enable people to live amicably together. It is high time that we apply to the retarded the mental hygiene principle that the social skills with which a person applies himself in daily living are as important as his knowledge and his academic and vocational skills.

As is the case for mental growth, the prospect of helping all retarded children acquire basic and minimal social skills is remote. The picture is one of wide differences in potential. The need is for opportunities to learn for those who can.

Causes of Mental Retardation

Early in the study a questionnaire was administered to the parents of the children. Each child child's retarded condition. Eight main causes were identified. The causes, their description, and the percentage of cases under each cause are presented in Table I.

In all but two of the 103 cases mental retardation was associated with a preceding disease or accident. Pre-natal, birth, and post-natal damage accounted for 38 per cent of the cases. The findings indicate that a cure or prevention of mental retardation is a very remote possibility. As the national birth rate increases, the number of retarded children will increase proportionately. The problem of mental retardation will increase in the years immediately ahead.

Summary

It is strange that greater efforts have not been made to provide more severely retarded children with long-range educational programs. On the contrary, society has been remarkably effective in denying them opportunities. The emphasis has been on the provision of institutional beds and preparation for dependence. Enough data must be collected and used to show that many present policies and practices for severely retarded children are socially and economically unsound.

Data from the study to date suggest the following propositions regarding the care and education of severely retarded children.

1. It is more difficult than is commonly as-

sumed to predict the adult social status of severely retarded infants and children.

2. There is a great need for more experimental school programs for the severely retarded.

3. In order to make accurate estimates of the educability of some severely retarded children, there is a need for programs which can be sustained for a minimum of fifteen years with a stable enrollment which will permit longitudinal studies.

4. In any assay of the progress of retarded children it is better to use measures which show gain or loss with time (physical, mental and social ages) rather than measures which show status (intelligence and social quotients).

5. In teaching severely retarded children it is more rewarding to emphasize the maximum use of their assets than to seek methods to correct their deficiencies.

Findings from the first year of the study are neither startling nor conclusive. The tone of this report is positive but not intentionally unrealistic. It is hoped that the contents will serve to stimulate more awareness of the need for research on the care and education of severly retarded children. The study will continue during the 1957-58 school year. The promise of more significant and useful results appears to be good.

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PLANT HOSPITALS

Construction of two new medical units in Ford Motor Company's big Rouge manufacturing area, to replace the thirty-two-year-old hospital in the "B" building, culminates a series of studies started in 1952.

Ford's medical program dates back nearly fifty years to the early days of the Highland Park plant. At that time, the company had a staff of doctors and nurses and a hospital unit considered far better than average for its time.

Hospital facilities kept pace with the growth of the company and the first Rouge hospital was established in 1918 in a farm house that had been purchased with the land when the Rouge was being built. It was located near where the present Rouge office building stands. The staff was composed of four physicians and one extern.

This unit was outgrown within a few years and in January, 1926, the second floor of "B" building was taken over for a new hospital with modern equipment and larger staff.

From that time until it was closed a few weeks ago, the "B" building hospital handled a case load of nearly a quarter million annually—most of them minor injuries or illnesses.

Six years ago, at the suggestion of Henry Ford II, president, the company appointed an advisory board of four prominent physicians to re-examine the entire medical program, to make sure it was keeping abreast of the times.

Not long after the studies were completed, the company began instituting the recommended changes.

The final step in the program was construction of two new hospital units and abandonment of the old facilities in "B" building. Ground for the new buildings was broken in August, 1957, and construction was completed early in April, this year.

Hazards from Drugs Used in Obstetrics

By Norman F. Miller, M.D.
Ann Arbor, Michigan

THE ONE purpose of this discussion is to re-emphasize hazards sometimes resulting from drugs and drug-administration techniques commonly used in obstetric practice. Although these hazards are known, their universal acquaintance has not yet been achieved. If justification for this recapitulation of known facts is necessary, it may be found in the continuing reports, both published and unpublished, of complications and even deaths, resulting from the improper and sometimes too casual use of drugs in obstetrics.

In restricting this discussion to drug hazards, I am not unmindful of the usefulness of the drugs here to be discussed. Indeed, the one-sided presentation here contemplated must be prefaced by the acknowledgment that their benefits and good points far outweigh their drawbacks. Furthermore, hazards attributed to these drugs, are often more correctly assigned to faulty technique or improper dosage.

Most of us do not think of obstetrics as a field of extensive drug therapy. Yet, a perusal of indications suggests the contrary to be true. In obstetrics, as in all fields of medicine, the availability of new pharmacologic discoveries has increased drug usage. It has also permitted the attainment of more precise effects. As the usefulness and effectiveness of drugs have increased, the margin of safety has frequently decreased, thus emphasizing the need for ever greater vigilance. This emphasis upon *vigilance in the use of drugs* is precisely the function of this discussion.

Let us glance briefly at some of the accepted indications for drug use in obstetrics, thus: (1) control of nausea in early pregnancy; (2) correction of dietary deficiencies; (3) improvement of metabolic activity; (4) correction of anemia; (5) initiation of labor; (6) stimulation of indolent uterine contractions; (7) inhibition of over active uterine contractions; (8) production of analgesia; (9) induction of anesthesia; (10) reduction of hypertension; (11) inhibition or correction of hypotension; (12) control of shock; (13) combat delayed blood clotting (afibrinogenemia); (14) inhibition of blood clotting (phlebothrombosis and thrombophlebitis); (15) suppression of lactation; (16) stimulation of lactation; (17) control of infection; (18) reduction of nervous tension; (19) induction of sleep; (20) stimulation of infant; and (21) a variety of other purposes, too numerous to mention.

Before singling out drugs and techniques for special consideration, several generalizations seem worth mentioning. The human organism is by no means endowed with machine-like constancy. Consequently, unanticipated and extraordinary responses to drugs may be noted. Physician satisfaction with the effect obtained is by no means constant. This applies especially to drugs used for the relief of pain. Philosophy, then, regarding result desired, may greatly influence the amount of drug used. Modern medical practice calls less and less for direct administration of drugs by the physician, a fact which further dilutes our familiarity with their effects and side reactions. Because of these things, it is wise to carefully select those drugs with which we desire to work. Their continued use may then be based on a better understanding of their effects and defects. The dissatisfaction voiced against certain forms of medication is ofttimes the consequence of a too-diversified trial and error program. The use of drugs in obstetrics warrants particular vigilance because the maternal hemodynamics are altered from that of the normal nonpregnant state. Furthermore, since most drugs pass the placental barrier, every drug used in obstetrics must be weighed in the light of both its fetal and maternal responses.

Since hundreds of drugs are used in obstetrics it is obviously impossible to consider them all. Consequently, I have selected only a few for consideration at this time.

Chlorpromazine (Thorazine).—This popular drug has quite naturally found its way into ob-

From the Department of Obstetrics and Gynecology, University of Michigan Hospital, Ann Arbor, Michigan.
Presented at the Michigan Clinical Institute, Detroit, March, 1957.

stetric practice and has been used for the purpose of: (1) controlling nausea and vomiting in pregnancy, and (2) as a potentiator of sedative and analgesic drugs used during labor. The drug has a depressant action upon the central and autonomic nervous systems. Its ability to control or minimize some types of nausea and vomiting is now well known. However, the hazard of toxic hepatitis and jaundice from prolonged use warrants caution when used in obstetrics. It should be borne in mind that the antiemetic effect of chlorpromazine may mask or obscure the diagnosis of nausea and vomiting from other causes.

Chlorpromazine finds usefulness during labor as a means of potentiating and also reducing the amount of analgesic and sedative drugs required. In general 25 to 40 mgm. once or twice during labor as a supplement to other medication is sufficient. The use of chlorpromazine at this time may also aid in reducing the hazard of vomitus aspiration.

Since chlorpromazine has been known to produce hypotension following parenteral administration, its use in connection with saddle block. spinal or caudal anesthesia would appear to be contra-indicated. If regional block anesthesia *is* used following earlier administration of chlorpromazine, the likelihood of a blood pressure drop may be minimized by use of a vasopressor drug. Since epinephrin may show a reversal of action when used with chlorpromazine, nor-epinephrin (Levophed) is to be preferred.

While the use of chlorpromazine in obstetrics must await greater experience before being assigned to its final niche, presently it should be restricted to use during labor. Its use should be avoided in patients with liver damage, hypertension and/or cardiovascular renal disease.

Demerol.—Practically all sedative and analgesic drugs used for pain relief during labor pass the placental barrier to reach the fetus. This fact emphasizes the need to measure their usefulness and hazards by their effect upon both fetus and mother. Demerol has analgesic properties approaching that of morphine. While reasonable dosage (50 to 75 mgm.) repeated at two to four hour intervals during labor may cause no fetal respiratory depression, it should be remembered that later use of general anesthesia tends to accentuate any depressive effect upon the fetus. Demerol is well tolerated by most patients. Occasionally, however, shock-like reaction has been noted. This is characterized by pallor, sweating and hypotension. At least one maternal death has been reported following the intravenous injection of 100 mgm. The desirability of using a small initial dose in order to learn something of the patient's response is obvious. *N-Allylnormorphine Hydrochloride* (Nalline) is considered to be a specific antidote (5-10 mgm. intravenously), depending on the severity of the need. Obviously no patient heavily sedated, regardless of the drug used, should be left unattended.

Ether.—Much could be said regarding the use of inhalation anesthesia during labor. Much might also be said regarding the real need for an anesthesiologist or competent anesthetist in the delivery room. Since, by and large, their presence is only sporadically possible, the physician generally finds himself dependent upon other methods for the relief of pain during labor. When terminal inhalation anesthesia is needed, open drop ether, administered by the physician himself or by someone he designates, is the inhalant most frequently utilized. The occasional need for the physician to be both anaesthetist and obstetrician at one and the same time creates a real problem. Furthermore, since most patients in labor are poor general anesthetic risks, we have here an added hazard. The probability that the patient has partaken of food and fluids before entering the hospital definitely predisposes to aspiration of vomitus. The number of maternal deaths from this cause is by no means negligible.

Trilene (Trichlorethylene).—This nonexplosive liquid inhalant has found considerable favor for short use as an analgesic during the later part of labor. It is frequently used in conjunction with pudendal nerve block analgesia. The drug has a depressant action upon the higher brain centers and may cause depression of the infant. Trilene is commonly self-administered by the patient through an appropriate inhalor (Emotril or Duke), in weak concentrations (0.375 per cent-0.5 per cent concentration. It should be used as an analgesic and not as an anesthetic. Posterior pituitary extract and epinephrine must not be administered to patients receiving Trilene. Similarily, the inhalation of Trilene during labor contra-indicates subsequent inhalation anesthesia by closed or semiclosed soda-lime absorption tech-

nique. Metabolic products produced by the reaction of these chemicals are toxic and have resulted in eighth nerve damage (deafness).

Regional Block Anesthesia (continuous caudal, saddle block or low spinal).—With these forms of pain relief, the technique of drug administration is about as important as the drug itself. Indeed, faulty technique is an important factor in the hazard attributed to drugs used for regional block anesthesia. Complications include: maternal hypotension, fetal anoxia, stopping of labor, post-anesthesia headache, increased use of forceps, irritated nerve-root phenomena, causalgia, foot drop, multiple myelitis, respiratory paralysis and death. The more serious complications have generally followed spinal anesthesia and occurred for one or more of the following reasons: (1) improper technique, (2) excessive dosage, (3) lack of close patient observation, (4) failure to observe contra-indications, and (5) use of wrong drug.

No one should undertake administration of the potent analgesic drugs used for regional block anesthesia without first becoming thoroughly familiar with the drug dosage and the technique advised for obstetric patients. These requirements are absolutely essential for safety. Failure to observe them has resulted in serious complications and death. That the pregnant woman at term requires *less* drug administration than in the non-pregnant state is now quite well established. This is explained on the basis of altered hemodynamics. In using low and safer dosage, analgesia may be achieved more slowly; therefore, the physician must exercise patience. For single dose spinal or saddle block anesthesia for vaginal delivery, no more than the following listed amounts should be given.

Procaine	30	to	50	mgm.
Metycaine	22	to	30	mgm.
Pontocaine	2	to	5	mgm.
Nupercaine	2.5	to	3.75	mgm.
Xylocaine	25	to	40	mgm.

For single injection spinal anesthesia for cesarean section Pontocaine up to 8 mgm. or Nupercaine up to 5 mgm. may be utilized. The shorter-acting Procaine, Metycaine, and Xylocaine are generally not suitable for this purpose.

Regional block anaesthesia techniques have much merit. They are especially rewarding in obstetrics, but they are precision techniques. They demand full comprehension of drug dosages for obstetric patients, exacting care in administration and constant patient supervision.

Posterior Pituitary Extracts.—Prior to present-day use in dilute form these powerful oxytocic drugs were responsible for serious fetal and maternal complications. The present technique for their use in dilute form represents a distinct improvement. However, this change from the old to the new has not eliminated all risk. Present usage calls for the dilution of 10 International units of posterior pituitary extract (Pitocin) in 500 to 1,000 ml. of 5 per cent glucose solution in distilled water. This is administered intravenously at 8 to 10 drops per minute at first, the rate of administration being increased gradually (25 to 40 drops per minute), depending on uterine response. When justifiably indicated and carefully scrutinized, this technique has proven satisfactory for the induction of labor and the treatment of inertia in selected patients. However, the tetanic activity of the hyperresponsive uterus serves to remind us that even in minute amounts this drug may precipitate untoward action. Constant observation of the patient during the period of administration is essential. Abrupt and abnormal rise in blood pressure has also been noted. In susceptible patients such rise may be especially unfortuitous.

Since the apparatus used for intravenous administration of posterior pituitary extract is not standardized, it is important to use an arrangement which permits prompt stoppage of the drug if necessary. This may be accomplished by a double stopcock near the point of vena-puncture, thus permitting switch to plain glucose solution, or the single tube technique may be used, in which case an available bottle of dextrose solution may be hooked up to the needle in place of the dilute pituitary solution. With care in administration and close observation, rupture of the uterus should no longer occur.

Ergot Alkaloids.—The ergot alkaloid, ergonovine maleate (Ergotrate) and the semi-synthetic preparation, Methyl-Ergonovine tartrate (Methergine) have achieved such general acceptance in obstetrics that today physicians look upon their use as essential to the proper conduct of labor. While their potent ecbolic effect far outweighs their disadvantages, we need to be reminded that

these drugs—as commonly used in obstetrics—are neither essential nor without hazard. The ergot alkaloids should only be used after delivery because of their uncontrolled and prolonged oxytocic effect. Side effects sometimes noted include prompt and significant rise in blood pressure within seconds following intravenous injection. This may be accompanied by nausea, vomiting, tinnitis and flushed skin. The need to avoid hypertension in patients with toxemia, suspected aneurysm, and other cardiovascular diseases is obvious. Similarly, induced vomiting could be a hazard for patients who are to receive inhalation anesthesia. These untoward effects are uncommon and inconsistent.

Summary

It has been the purpose of this brief discussion to re-state certain drug hazards in obstetrics. There are many others. In order to reduce these hazards it is well to acquire a rule-of-thumb philosophy regarding the use of any drug in obstetrics. To this end the following suggestions are appended.

1. The increased variety, potency and specificity of drugs permit us to achieve improved therapeutic response, but generally at the expense of requiring greater precision and vigilance in the techniques of their administration.

2. From a practical standpoint, it is better to work with a few selected drugs in order to achieve familiarity and safety in their use.

3. Before using any drug, learn the elements of its pharmacologic action, dose, indications, technique of administration, and possible hazards and antidote.

4. Since most drugs pass the placental barrier, all medication administered to pregnant women should be evaluated on the basis of both fetal and maternal effect.

5. Remember, the obstetric patient generally requires less drug (especially drugs used in regional block analgesia) than the accepted standard dose used for the non-pregnant state.

6. While most drugs are administered by others on a physician's order, the responsibility, regardless of end result, remains with the physician.

7. Never permit a pregnant patient who is receiving a potent drug, to be left unattended.

BLUE SHIELD BENEFITS

"One of the few constructive, forward steps taken by the medical profession in the last twenty years has been the adoption of Blue Shield. It may represent one of our few hopes for survival as a self-determining profession. In theory, its original aim was to convert a system of postponed payment for medical service into a streamlined system of prepayment for protective care. This was intended to confer a benefit on the public by allowing low-income groups to share the full advantage of private medicine—and at the same time, the profession would gain the benefit of converting a large amount of charity service into paying practice. Both these theoretical benefits have been so realistically vindicated in the experience of the last two decades that they now stand above debate. But today a third and still more important benefit from Blue Shield is becoming more and more apparent, for this service has given us an intelligently co-ordinated and profesisonally controlled corporate body through which we can bargain with the public and they with us."—Charles H. Bradfort, M.D., *The New England Journal of Medicine,* April 3, 1958.

* * *

"Blue Shield is a product of the Massachusetts Medical Society and was originated as a constructive step toward making medical care available to all, and to act as a bulwark against the encroaching tide of governmental subsidization. Society and Service must work together in amity and in close co-operation if the system of free enterprise is to survive."—David Rose, M.D., *New England Journal of Medicine,* May 1, 1958.

Editorial

IMMUNIZATION

In 1887, the *Journal of Physiology* carried an article entitled "Experiments on the Preventive Inoculation of Rattlesnake Venom" by Henry Sewall, Ph.D., Professor of Physiology in the University of Michigan. In it he speculates:

> "If immunity from the fatal effects of snake-bite can be secured in an animal by means of repeated inoculation with doses of the poison too small to produce ill effects, we may suspect that the same sort of resistance against germ-disease might follow the inoculation of the appropriate ptomaine, provided that it is through the products of their metabolism that bacteria produce their fatal effects."

In beautifully controlled experiments, Sewall demonstrated that guinea pigs could be made immune to large amounts of venom as a result of the repeated small doses which they could tolerate. The immunity which developed persisted at least for five months. These demonstrations became the basis of antitoxic immunity. Dr. Victor Vaughan relates the visit of distinguished French scientists to Ann Arbor some years later to see where the work had been done which pointed out the way to the discovery of diphtheria antitoxin, and also the basis for active immunization with toxins.

It is interesting that these studies were conducted by a physiologist for the mechanisms of resistance to infection are so clearly physiological in character although study of the processes until recently has been carefully avoided by physiologists. The principle of active immunization is to induce resistance comparable or even superior to that which can result from the full blown disease without experiencing the ill effects of disease. Much of this is accomplished in nature by subclinical infection but it is an unpredictable method. Vaccination against smallpox, rabies, or yellow fever represents the establishment of infection with modified or attenuated viruses which induce immune responses capable of protecting against the fully virulent agents. Immunization against diphtheria and tetanus is induced, as Sewall foresaw, with products of bacterial metabolism. Still other vaccines contain killed whole viral or bacterial bodies which retain the biochemical components or antigens essential to stimulate the specific, protective antibodies—influenza, poliomyelitis, pertussis. One can look forward to the compounding of vaccines which will contain only the purified antigens extracted from infectious agents without the mass of non-essential matter present in the bacterial body. As the causes of many more diseases are recognized and the make-up and modes of action of these agents are better understood, advanced technical methods will result in additional preventive vaccines. Their applicability will raise further the necessity for multivalent preparations effective against a number of different diseases.

Preservation of the norm and prevention of disorder is a fundamental concept of immunology and immunization. It has been a continued objective in Michigan medicine since Sewall and Vaughan. The first full chair of Hygiene was established at the University of Michigan in 1887, and in January, 1889, the Hygienic Laboratory—first of its kind in the nation—opened its doors. In 1903, a Pasteur Institute for the study and control of rabies was established. The laboratories of the State Department of Health became a producer of biological products of unsurpassed excellence. In their laboratories, Doctor Kendrick and Doctor Eldering produced the material and conducted the studies which established the value of pertussis vaccine. The investigation and development of influenza vaccine has been a continuing activity of the Department of Epidemiology at the University of Michigan. It also played an important role in evaluation of the Salk vaccine for poliomyelitis. Doctor Nungester continues with efforts to provide improved materials generally applicable to the prevention of tuberculosis. Control of disease by immunization is, then, a Michigan heritage.

Preventive medicine has frequently been called the medicine of the future. The current opportunities to prevent disorders indicate that the future is close at hand.

Thomas Francis, Jr., M.D.

Dr. Francis is Henry Sewall University Professor of Epidemiology, Chairman of the Department of Epidemiology, School of Public Health, and Professor of Epidemiology, Department of Pediatrics and Communicable Diseases, University of Michigan Medical School.

This Is It!

We took a Long Look at the Problem.
Now let's take a Good Look at the Answer.

Because a change in Michigan Medical Service was long overdue, our Society wanted to find out what the public and the profession wanted in prepaid medical care before it took action. In effect, we said: "Let's plan for the future from *knowledge;* not jump to meet the exigencies of the moment."

Our scientific and comprehensive Opinion Study gave us the wishes of the public and the instructions of our membership, and our policy makers acted to give us an answer. The answer has two parts—one is the statement of principles, the other the MMS contract to implement the directives inherent in those principles.

This MMS contract, having followed the House of Delegates' Statement of Principles to the letter and having been duly approved after the most exhaustive study by proper authorities, is now in the hands of subscribers. But more importantly, it is in your hands and mine as practicing doctors of medicine. It is worthless unless we need it, want it, use it, support it, guard it, buy it and sell it.

Let me go on record as saying: "This is it. It is the finest answer which can be fashioned at this time and in these circumstances by human ingenuity and skill to meet this medical-economic problem. I'm for it unequivocally and without reservation."

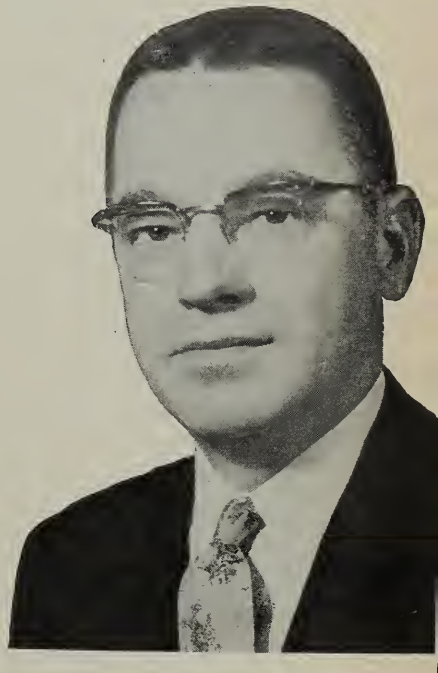
Join me. Not with tongue-in-cheek, not with mental reservations, not with a "sacrifice complex," but enthusiastically, willingly, and a let's-make-it-the-biggest-success-yet spirit.

Don't mistake me. I don't believe all our problems are solved. I don't believe they will be, even if this program is 100 per cent perfect. (Time will develop new problems, to be sure.) But if we do give this program our confidence, I know we shall make progress.

Geo. W. Slagle.

President, Michigan State Medical Society

President's



Message

APPRECIATION

We wish to thank Dr. Thomas Francis, Jr., and his staff for their invaluable aid in preparing and selecting the material for this special issue on immunization.

SOME COGITATIONS

The Michigan State Medical Society is offering a completely new concept of medical services contract for the people of the State of Michigan, involving numerous untried principles and a new approach to service to our over 3,750,000 subscribers. The details of the plan are being determined and implemented by a group of Michigan State Medical Society members devoting many full-day sessions trying to match action and accomplishment with the expressed decisions growing out of the Opinion Survey made in 1957. This committee and the staff of Michigan Medical Service have available and are using the finest actuarial and insurance counsel available. After expressing the final details of the contract according to instructions, the relative value scales have been readjusted to meet Michigan conditions, the details and items are sufficiently known that comparison can be made showing an increase in benefits for services in the $7,500 certificate of about 32 per cent over the rates of the old $5,000 certificate. For general distribution, a 250-item listing of the new relative value scale is now in process of publication. When the final details of listing were accepted the Council adopted the fundamental program and authorized application to the Insurance Commissioner for final approval which then granted will include the new ratings.

Some members, and some closely organized groups are disregarding the fact that they had been asked repeatedly to submit rates and fee schedules to the working committees which were appointed to establish fair, adequate schedules. The last revision was made in 1949, but modifications of some items have been made regularly ever since. Persons are publishing through letters and other mediums, disgruntled and disturbingly inaccurate charges tending to produce disunity and discontent with the new program. Tape recordings of the meetings referred to disprove and fail to show some quotations which are being distributed. The members being attacked and criticized have devoted untold nerve-wracking days trying to assure the most complete and accurate attainment of the expressed wishes and desires of the membership and of the people demonstrated by this 1957 survey mentioned before as the basic guide.

Commendations-condemnations

These are two very similar words with almost exactly the same letters, but what a difference in meaning. The Michigan State Medical Society has several committees which over long periods have been meeting frequently, spending days and nights doing the necessary work of the Society, expressing and carrying out its ambition and expressed desires. That especially includes this one committee which is now under severe criticism by persons who (we hope) misunderstand. These devoted, hard-working members, instead of condemnation, actually merit the highest commendation possible to give.

The Michigan State Medical Society and the medical profession in general are now recognizing another trend toward governmental, bureaucratic or pressure group efforts to dominate and administer medical services. To retain to the medical profession the direction of the pre-paid insurance features and the modernization and expansion of the benefits being demanded, this entirely new program is being offered. Nineteen years ago the very strongly intrenched bureaucrats and social leaders almost accomplished the federalization of the medical profession, but Blue Shield at that time saved private practice.

The Michigan State Medical Society was then entering into an entirely new and untried field, the application of insurance principles in providing medical care. Before being allowed to proceed, the State Insurance Commissioner demanded evidence that the medical profession would actually give the benefits being promised to the people who might subscribe. Eighty-two per cent of our doctors of medicine signed "participation" slips agreeing to accept as full payment for the under-income-limit persons, the fees which the Plan had established and hoped to pay. Participation was a purely voluntary action but a necessary one to start the pre-paid medical service plan. The Michigan State Medical Society was lucky and fortunate that so many of its members had faith. The socializing, federalizing process then so far advanced was effectively postponed and almost completely forgotten by too many members.

The new and modernized program now being offered must also have a sufficient number of

participating members to guarantee its success. There is not now the same risk to assume. Blue Shield probably never will have to prorate payments to the members as so many plans did in the early, formative years and as Michigan did for a period of a few months. Medical leaders not only in Michigan, but throughout the land, believe the profession is again facing grave forebodings which must be met and solved. They are again looking to Michigan to lead the way.

Participation

"Participation" is now being solicited—no one is compelled to sign. It is absolutely voluntary. No person, no group has "fixed the amount of pay the doctor must accept." A suggested adequate schedule of benefits has been listed for the services which the Society, through its House of Delegates, is promising. Remember, there are numerous benefits which the participating doctor —as well as the patient—will receive. Under the old ordinary insurance plan, indemnity was paid to the patient and the doctor had his collection expenses. One of the first principles and reasons stimulating the early establishment of Blue Shield and the pre-payment plans in general, was to guarantee money would be available to pay for the services which the patients need. The payments would be made directly to the doctors.

Each member must make his own determination, his own choice. The Society believes and hopes that more than the original 82 per cent of its membership will have faith in the professional administration and again stave off the the disrupting forces without and within which are so insistent and threatening.

Practically all the conditions and desires expressed by the survey and the medical questionnaire have been accomplished in the completely modernized version of the Blue Shield Plan. There always have been and probably always will be minor compromises which different interests must make but the final accomplishments in our new principles and concept of service are unusually complete and conforming. Non-participating members of our Society and the large groups of non-members actually and basically become participators because they express by usage of the plan their confidence of collecting their account without effort.

A man who is not willing to take his chances of collecting fees from his patients when he knows insurance has been paid is not consistent. Prepaid "medical benefits" insurance guarantees full payment of the amount established by the Michigan State Medical Society.

The new pre-payment medical program is a program of Michigan State Medical Society; participation is with the Michigan State Medical Society. Michigan Medical Service is the administrating group carrying out the ideals of the Michigan State Medical Society. Remember?

In the middle 1930's, there were health and accident insurance companies with policies which paid weekly benefits to the disabled or ailing subscribers to an amount usually of $25.00 This was paid direct to the insured and in those years of scarce money, few jobs, insecurity in general, the problem of collecting for medical services rendered was a real one and was a considerable expense to the doctor. A very concerted effort was made by the Michigan State Medical Society to induce insurance companies to pay the doctor direct or by a co-signed check to the doctor and to the beneficiary. After years of efforts such agreements were made by a majority of the insurance companies doing business in Michigan. Similar actions were taken in other states. That was a great accomplishment and widely publicized to the profession. It was then necessary, however, for the patient or the insurance beneficiary, to sign a waiver to the insurance company. That arrangement helped in the development of our voluntary pre-payment plans. Insurance companies were asked to set up such a program but claimed it was not actuarily sound.

Would you like to return to the 1930's with their insecurity—their collection costs and inconvenience—no one budgeting medical costs?

DIVIDE AND CONQUER

There is increased apprehension among the medical leaders and statesmen throughout the nation regarding the constant trend toward government medicine, of the invasion of pressure groups, labor and others, who wish to dominate the dispensing of health services.

Each year sees large groups of people removed from the clientele of the private practice of medicine. Some have been taken over by government. Probably the most threatening just now are the

labor-controlled groups which are using closed panels of salaried medical men.

How is this being accomplished? By the old method of *divide and conquer.* The original Wagner-Murray-Dingell bill, which caused so much trouble on the state and national scene, several years ago is being enacted by piecemeal methods, thereby making great inroads in private practice. It is now apparent that more and different controls are being considered by much more closely entrenched leaders who will use every strategy to get one advantage after another—with the whole pie their ultimate goal.

Blue Shield and Blue Cross are still the saving buffer which retained the profession in private practice.

The whole medical profession is in the balance. It must act concertedly and unanimously or one disgruntled or even wavering group after another will weaken the whole defense. Now is no time for disunity. In the late 1930's the profession almost completely stood its ground and won. It might do so now.

We are one profession—divided into specialties and groups, but with one fundamental goal. As never before the profession now needs "unity."

LOOKING FORWARD

The Editor wishes to offer a purely personal and possibly selfish expression of his feelings, reactions and visions of the impending future in medicine. For years, he has had an urge to write a book, in fact twice has started one, but was interrupted and dissuaded by other interests and never finished. Besides helping record the present has been fascinating and rewarding. He has been attentively attending medical meetings, and many, many times—almost always—returns home with the feeling of having learned something new, and that, frequently, from the chance conversation with a friend old or new. He has recently spent four full days and five nights in Detroit at the Twelfth Michigan Clinical Institute. Again he has unbounded enthusiasm. He has sat three or four hours at a stretch listening to research workers and practitioners picture the past and future of medicine.

The theme "Yesterday's Hopeless—Now Curable" was a stroke of genius. The terrific storm in the East necessarily concentrated a group of speakers into the final afternoon (Friday, March 21) and gave the small group of members who stayed to the end, a treat never to be forgotten.

The miracles being accomplished by skilled masters in so many conditions heretofore almost always considered hopeless was truly inspiring. We came away with an intense awareness of astounding accomplishment almost upon us—really happening before our eyes. We have seen the antibiotic drugs, the miracle preparations and their tremendous gifts of life in the last few years. We have seen surgery enter the heart, the great blood vessel, the chest, the neurological system. Each with such a realistic effect gives more and more abiding hope to the recipient. We have marveled and applauded and have been especially touched by the amazing contribution of our own friends and neighbors which have added to the overall picture. We have seen two pioneer television exhibitions that were not only the first but have illustrated to millions of viewers what scientific medicine is accomplishing.

The promises made to the small group Friday afternoon should have reached every member. They gave us a feeling that many new answers of research are just about culminating. New hope is offered in toxemia of pregnancy—its diagnosis and treatment, in diseases of the nervous system, in acute infectious diseases, in allergies, in dermatology, and a hint that cancer is being attacked from a different angle—maybe not a new thought—but certainly encouraging.

Are the allergies and cancer states of mind or diasthenoses? Listeners were given the intimation that newer modified concepts are showing results in both fields.

It was inspiring, and the Editor hopes the printed reports will carry the hopeful messages (sometimes given aside) to the hundreds who did not stay.

We wish to pay tribute to Paul deKruif, Sc.D., who was instrumental in securing several of the outstanding speakers, especially on the last day's program. He had been assigned chairmanship of the final quiz conference, stayed in the forefront of the dwindling audience, encouraged everyone. The final gesture was typical of his forethought. The session had run more than an hour over time, due to late start and snow. He called the meeting to order immediately, made a few very complimentary remarks about the wonderful papers, and dismissed the group.

Paul, we admire and thank you.

MCI Live Surgery Viewed by Two Million

As a prelude to the 1957 Michigan Clinical Institute on March 19, nearly two million television viewers watched a Detroit surgeon replace a diseased artery with a dacron substitute.



The live hour-long show was telecast in compatible color by WWJ-TV and transmitted to a statewide network of TV stations including those in Cadillac, Grand Rapids, Lansing and Traverse City.

The actual operation was performed in Henry Ford Hospital where the scene was picked up by the mobile color TV cameras of Smith, Kline & French Laboratories, Philadelphia. By microwave relay, the picture was sent to the WWJ-TV studios for transmission to the thousands of home sets awaiting the second live operation ever to be publicly telecast in Michigan.

Few of the MCI registrants, totaling 2,885, missed the Tuesday night broadcast, though not all were able to view the program on color television receivers. MCI and Michigan State Medical Society officials were gratified at the overwhelming public acclaim which followed the broadcast.

While the surgical team worked under the direction of D. Emerick Szilagyi, M.D., and Roger F. Smith, M.D., a panel of doctors of medicine was ready at intervals in an adjoining studio to explain in lay terms what the public had just seen on the screen. The panel was composed of Henry T. Bahnson, M.D., Associate Professor of Surgery, Johns Hopkins Hospital, Baltimore; Marion DeWeese, M.D., Associate Professor of Surgery, University of Michigan, Ann Arbor; Prescott Jordon, M.D., Associate Professor of Surgery, Wayne State University, Detroit; and Eugene A. Osius, M.D., Chief of Surgery at Harper Hospital, Detroit.

MSMS Honors Thirte



With obvious enjoyment, Frederick A. Coller, M.D., accepts his scroll from George W. Slagle, M.D.



K. H. Johnson, M.D., luncheon chairman, greets *(left to ght)* Representative Cramton, Senator Christman, Senator ichols, and Representative Harry Phillips.

R. B. Miller is pinned by MSMS president as luncheon peaker James E. Haggerty, State Bar president and Hon- ee Joseph G. Molner, M.D., look on.



Mid-way during the Michigan Clinical Institute proceedings, the Michigan medical profession paused to pay tribute to six doctors of medicine and seven prominent citizens who had made significant contributions in the broad field of health.

Chairman of the testimonial luncheon was Kenneth H. Johnson, M.D., Lansing, who introduced the guest speaker, The Honorable James E. Haggerty, president, State Bar of Michigan.

Presentations of the scrolls were made by George W. Slagle, M.D., and L. Fernald Foster, M.D.

Serving as the Committee on Arrangements and also doing double duty as host to the honorees were: Kenneth H. Johnson, M.D., Lansing; Lester P. Dodd, LL.B., Detroit; B. M. Harris, M.D., Ypsilanti; Robert G. Jaedecke, M.D., Ishpeming; William S. Jones, M.D., Menominee; Ivan A. LaCore, M.D., Pontiac; Claude A. Ludwig, M.D., Port Huron; Robert L. Novy, M.D., Detroit; C. Allen Payne, M.D., Grand Rapids; Horace Wray Porter, M.D., Jackson; A. E. Schiller, M.D., Detroit; John M. Sheldon, M.D., Ann Arbor; George W. Slagle, M.D., Battle Creek; D. Bruce Wiley, M.D., Utica, and H. B. Zemmer, M.D., Lapeer.

William J. Burns, MSMS executive director, was recognized as an honorary member of MSMS. The *Battle Creek Enquirer and News* was saluted for sponsoring a series of public health forums. For co-operation in telecasting the 1957 public colorcast of the live heart surgery, WWJ-TV was presented with a scroll of appreciation. The four legislators were honored for their longtime support of health-welfare legislation in Michigan.

Honorees William J. Burns, MSMS executive director, and Grover C. Penberthy, M.D., check the luncheon program.



Testimonial Luncheon

HONOREES

O. A. Brines, M.D., *Detroit, President International Society of Clinical Pathology*

A. C. Furstenberg, M.D., *Ann Arbor, Dean, University of Michigan Medical School*

Edgar A. Kahn, M.D., *Ann Arbor, President, Society of Neurological Surgeons*

Joseph G. Molner, M.D., *Detroit, Author of nationally-syndicated medical column*

Grover C. Penberthy, M.D., *Detroit, Chairman, Selective Service in Michigan*

Paul Van Riper, M.D., *Champion, Michigan's Foremost Family Physician for 1957*



Mrs. Samuel Dibble beams as her father, Paul Van Riper, M.D. (Michigan's Foremost Family Physician—1957), is congratulated by C. E. Umphrey, M.D., MCI general chairman.

AWARDEES

William J. Burns, LL.B., *Lansing, MSMS Executive Director*

Battle Creek Enquirer and News, R. B. Miller, *Publisher*

Senator Lewis G. Christman, *Ann Arbor*

Representative Louis C. Cramton, *Lapeer*

Senator Haskell L. Nichols, *Jackson*

Representative Harry J. Phillips, *Port Huron*

WWJ-TV, *Detroit*

Don De Groot, *Assistant General Manager*

MSMS Awards Committee Chairman L. F. Foster, M.D., admires scroll presented to each honoree, *(left to right)* E. A. Kahn, M.D., A. C. Furstenberg, M.D., and O. A. Brines, M.D.



Detroit Service Clubs Hear



Kenneth Mathews, M.D., Ann Arbor, chats with club members following his talk before Detroit's Central Kiwanis Club.

G. Brinkman, M.D. *(center)* chats with president of Downtown Lions Club.



James S. Feurig, M.D. *(center)*, East Lansing, with officers of Detroit Riverside Kiwanis Club.



Nearly 3,000 Rotarians, Kiwanians and other Detroit area service club members heard talks by doctors of medicine during the week of the 12th Michigan Clinical Institute in mid-March.

Speaking engagements were arranged by the MSMS Public Relations office in Detroit.

Topics ranged from Aorta to Mental Health, but all talks carried some report of the purpose of the annual MCI refresher course. Club interest in the programs ran high because of the stimulus of the public telecast, in color, of an aortic transplant performed before an audience of more than two million Michigan televiewers. The operation was performed in Henry Ford Hospital and beamed to WWJ-TV for transmission to a statewide TV network. Technical production of the public show and daily closed circuit broadcasts during the MCI program were handled by a special TV crew of Smith, Kline and French Laboratories.

In all, twenty-nine service clubs were reached by medical spokesmen. Typical of the comments received from club program chairmen is this from John C. McCurry, program chairman of Detroit Rotary, who said, ". . . we had a standing-room-only crowd, and it is seldom that I have ever seen a speaker hold the interest of his audience as did our doctor guest last Wednesday. Thanks to all those responsible for making this address possible."

George W. Slagle, M.D., MSMS president, addressing Grosse Pointe Kiwanis Club.



Medicine's Story During MCI

KIWANIS CLUB OF DENBY DETROIT (Perrini's Restaurant): D. Emerick Szilagyi, M.D.—"New Arteries for Old"

HAMTRAMCK ROTARY CLUB (Polish-American Century Club): Clarence Owen, M.D.—"Responsibility of Doctor to Hospital, and Vice Versa"

FORT ALLEN KIWANIS CLUB (Wabeek Tea Room, Wyandotte): E. A. Osius, M.D.—"Vascular Surgery"

PONTIAC HI TWELVE CLUB (Masonic Temple, Pontiac): Brooker L. Masters, M.D.—"Blue Cross-Blue Shield"

U & I CLUB (Detroit Leland Hotel): A. S. Church, M.D.—"A Psychiatrist Looks at Our Culture"

LOLA VALLEY KIWANIS CLUB (E & K Dining Hall): C. J. Hipps, M.D.—"Plastic Surgery"

CENTRAL KIWANIS CLUB (Abington Hotel): Kenneth Mathews, M.D.—"Allergies"

NORTH DETROIT KIWANIS CLUB (Lutheran Institute for the Deaf): Glenn E. Millard, M.D.—"Heart Disease and High Blood Pressure"

HARPER WOODS KIWANIS CLUB (Notre Dame High School): Benjamin Jeffries, M.D.—"Mental and Emotional Problems"

WARRENDALE KIWANIS CLUB (Evergreen Lutheran Church): Carl J. Sprunk, M.D.—"Medicine in Civilian Defense"

NORTHEAST KIWANIS CLUB (Northeast YMCA): Paul R. Dumke, M.D.—"Anesthesia—Yesterday and Today"

DOWNTOWN LIONS CLUB (Statler Hotel): G. Brinkman, M.D.—"Lung Cancer and Cigarettes"

PONTIAC KIWANIS CLUB (Waldron Hotel, Pontiac): Prescott Jordon, M.D.—"Hypertension" and "The Live Telecast"

GROSSE POINTE KIWANIS CLUB (Grosse Pointe War Memorial): G. W. Slagle, M.D.—"The National Health Picture"

DEARBORN OUTER DRIVE KIWANIS (New Apostolic Church): J. R. Rodger, M.D.—"Traffic Safety and You, the Driver"

THE TRIMZ CLUB (Cannon Memorial Recreation): R. S. Knox, M.D.—"Emotional Problems of Overeating"

DETROIT ROTARY CLUB (Statler Hotel): D. Emerick Szilagyi, M.D.—"New Arteries for Old"

ART CENTRE KIWANIS CLUB (Belcrest Hotel): G. B. Saltonstall, M.D.—"Surgery Techniques"

VORTEX CLUB OF DETROIT (Harmonie Club): Roger Smith, M.D.—"Explanation of TV Show"

OAK PARK KIWANIS CLUB (Micheles Restaurant): A. H. Hirschfeld, M.D.

PONTIAC NORTH KIWANIS CLUB (Moose Lodge, Pontiac): Wm. M. LeFevre, M.D.—"The Businessman's Heart"

DELWOOD KIWANIS CLUB (Major's Cafe): Harry A. Towsley, M.D.—"The Doctor's Postgraduate Medical Education"

LIVONIA KIWANIS CLUB (Livonia Inn): Eugene Brooks, M.D.—"Psychiatric Perspectives on Criminality"

EXCALIBUR CLUB (Sheraton-Cadillac Hotel): Marion DeWeese, M.D.—"Explanation of TV show"

WEST PONTIAC KIWANIS (Scrib's Restaurant): E. J. Tallant, M.D.

DETROIT RIVERSIDE KIWANIS CLUB (Whittier Hotel): James S. Feurig, M.D.—"Medicine and Sports"

ROSEVILLE KIWANIS CLUB (Trinity Methodist Church): R. I. McClaughry, M.D.—"Medicine in the Community"

CENTERLINE ROTARY CLUB (Centerline Recreation): Aloysius Church, M.D.—"A Psychiatrist Looks at Our Culture"



Marion DcWeese, M.D., Ann Arbor, speaking before members of Detroit's Excalibur Club.



G. B. Saltonstall, M.D. *(center),* MSMS president-elect, at the Art Centre Kiwanis Club, Detroit.



D. E. Szilagyi, M.D. *(right)* receiving thanks of Detroit Rotary Club program chairman, John C. McCurry.

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

STAPHYLOCOCCAL INFECTIONS AND PUBLIC HEALTH

Staphylococcal infections, particularly in newborn infants, have been recognized as a public health problem for a good many years. The fact that these infections have become of increasing concern in the past few years is primarily a result of the development of antibiotic-resistant staphylococci which has, in turn, led to the creation of carriers of the organisms, frequently among hospital personnel.

From a public health standpoint, the Michigan Department of Health is most concerned about the hospital nursery problem. An outbreak of epidemic staphylococcus in the nursery, in addition to threatening infants' lives, can provide an avenue of infection to the family. These infections often persist for long periods of time and can spread out from the family to involve an entire community. Thus the possibility of widescale infection from infants exposed in the hospital nursery during an outbreak is very great.

Over the past two years, the Michigan Department of Health has investigated nineteen outbreaks of staphylococcus disease in hospital nurseries. In fifteen of these hospitals, located in eleven different counties, a single epidemic strain of the organism was identified: staphylococcus phage type 42B/52/80/81. In the other four hospitals, no single strain of staphylococcus was demonstrated to be the cause. However, in these four hospitals, conditions were such that gross contamination was possible. Correction of these conditions ended the outbreaks.

In all the outbreaks investigated, there was one relatively common factor: overcrowding of the nursery. In most of these nurseries the space between bassinets was considerably less than the 2 feet recommended. As a result of this overcrowding there was increased activity in the nursery by a greater number of staff persons thus increasing the possibility of initial infection and the likelihood of infant to infant transfer.

In the majority of the epidemic outbreaks investigated in which a single strain of staphylococcus was identified, one or more carriers of the specific epidemic type was found to be in daily contact with the infants. Techniques to prevent infant to infant spread combined with removal of the carrier or carriers prevented the occurrence of further outbreaks.

The epidemic type of staphylococcus disease manifests itself in several ways, but primarily through pustules on the skin although it may also result in sepsis, pneumonia, or abscess of the infant breast. The second major expression of the disease is the occurrence of breast abscesses in mothers. Third is the occurrence of infections of wounds of surgical patients. Fourth is infection of the skin and/or lungs of bedridden chronic patients.

The known occurrence of epidemic outbreaks of staphylococcus disease in Michigan in nurseries has been in hospitals in which there were over 30,000 births annually. However, the problem of staphylococcus infection is not limited to the nurseries. For example, the disease may occur in surgical patients and may also result in food poisoning. Surgical patients may develop membraneous enterocolitis as a result of antibiotic-resistant staphylococcus acquired in the hospital. These organisms are able to grow in the bowel because the normal bowel bacteria have been destroyed by antibiotics, chiefly the tetracyclines, so that surgery might be accomplished more successfully. Food poisoning may result from the toxins which certain types of staphylococcus elaborate. These may get into the food from an infected finger or from the nose and throat of the cook or other food service personnel who are carriers. In certain foods such as custards, or hams, these organisms tend to grow. Although the organisms may be destroyed by the heat of cooking, the toxins they produce are not affected.

From a control point of view, the Department feels that the mainstays of prevention are:

1. Rigid standards of cleanliness.
2. Aseptic techniques.
3. Alertness to the possibility of the problem developing in the nursery and prompt isolation of infants suspected of having an infection.
4. In the hospital a committee on infection with delegation of one member of the medical staff as the person specifically responsible for carrying out measures to control the problem.
5. Determination of sensitivity and use of that antibiotic which is effective in controlling the organism where treatment is necessary.

Unquestionably, staphylococcus infections have become a major problem, usually first recognized in the community's hospital. Assistance from the Michigan Department of Health can be obtained by any Michigan hospital which has a problem with staphylococcus infection.

RULES AND REGULATIONS FOR NURSING HOMES AND HOMES FOR THE AGED

(Excerpts Applying to Medical Supervision)

Each patient or resident admitted to a home shall be examined by a physician before or promptly after admission in order to safeguard against contagion and to insure needed medical care.

This examination shall include a chest x-ray.

Each patient in a nursing home shall be under the continuing supervision of a licensed physician.

(Continued on Page 754)

CONFIRMED THERAPEUTIC UTILITY



Pro-Banthīne® "proved almost invariably effective in the relief of ulcer pain,

*in depressing gastric secretory volume and in inhibiting gastrointestinal motility."**

"Our findings were documented by an intensive and personal observation of these patients over a 2-year period in private practice, and in two large hospital clinics with close supervision and satisfactory follow-up studies."*

Among the many clinical indications for Pro-Banthīne (brand of propantheline bromide), peptic ulcer is primary. During treatment, Pro-Banthīne has been shown repeatedly to be a most valuable agent when used in conjunction with diet, antacids and essential psychotherapy.

Therapeutic utility and effectiveness of Pro-Banthīne in the treatment of peptic ulcer are repeatedly referred to in the recent medical literature.

Pro-Banthīne Dosage

The average adult oral dosage of Pro-Banthīne is one tablet (15 mg.) with meals and two tablets at bedtime.

G. D. Searle & Co., Chicago 80, Illinois.
Research in the Service of Medicine.

*Lichstein, J.; Morehouse, M. G., and Osmon, K. L.: Pro-Banthīne in the Treatment of Peptic Ulcer. A Clinical Evaluation with Gastric Secretory, Motility and Gastroscopic Studies. Report of 60 Cases, Am. J. M. Sc. *232*:156 (Aug.) 1956.

SEARLE

NURSING HOME RULES

(Continued from Page 752)

The operator of a home shall be responsible for arranging for the prompt provision of this and any other needed medical care.

Nursing homes shall require an admitting diagnosis and treatment plan to be recorded promptly for each patient admitted.

All treatment shall be under the specific or standing written orders of a physician.

Any telephone orders from a physician shall be written and signed on the record by the person in charge, and counter-signed by the physician at the time of his next visit.

Immediate investigation of the cause of accidents shall be instituted by the home operator and any corrective measures indicated shall be adopted.

All medicines, including individual prescriptions, shall be kept in a locked cabinet.

The key for this cabinet shall be carried by or accessible to only those persons authorized by the administration to handle and dispense prescriptions and medicines to individual patients.

First aid supplies for emergency care shall be maintained in a place known and readily available to all personnel responsible for the health and well being of patients or residents.

In case of sudden illness or accident, the management of the home shall immediately call a physician and notify the person or agency who placed the patient or resident in the home.

In case of death, the physician of the patient or resident and the person or agency placing the patient or resident in the home shall be notified immediately.

A signed record of this notification, the name of the person notified and the time the notification was made shall be recorded on the chart of the patient or resident.

No home shall accept for care any seriously mentally disturbed patient or resident. Any patient or resident who, after admission to a home, shows serious mental disturbance shall be removed from the home.

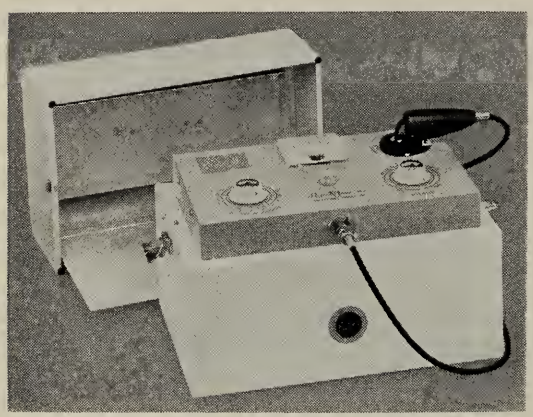
ARMY MEDICAL SERVICE DIPLOMATES

Army Medical Service officers are attaining in one year almost as many specialty board certifications as the Service had on its roster ten years ago when its graduate professional training program was instituted.

In 1957, 103 of the Army's physicians and surgeons successfully passed examinations of the American specialty boards.

In 1947, the Army Medical Service census of certified officers accumulated over previous years was 140 diplomates.

One of the objectives of the educational program begun in 1947 was to stimulate medical officers' interest in certification. The total number of Medical Corps diplomates in December 1957 reached 557 with a range of thirty-four specialties and combined specialties.



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for THE PROPHYLAXIS OF ANGINA PECTORIS

'Cardilate' tablets  shaped for easy retention in the buccal pouch

"... the degree of increase in exercise tolerance which sublingual erythrol tetranitrate permits, approximates that of nitroglycerin, amyl nitrite and octyl nitrite more closely than does any other of the approximately 100 preparations tested to date in this laboratory."

"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

*'Cardilate' brand Erythrol Tetranitrate SUBLINGUAL TABLETS, 15 mg. scored



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In Memoriam

ABRAHAM KOVEN, M.D., sixty-three, a Detroit physician, died March 16, 1958, at University Hospital in Ann Arbor.

A native of New York City, Doctor Koven set up practice in Detroit after graduation from Windsor Collegiate Institute and the Detroit College of Medicine.

He was on the staff of Detroit Memorial Hospital, a member of the Wayne Couny Medical Society, the American Academy of General Practice, American Medical Association, Perfection Lodge 486 F. and A.M., Julius Rosenwald Post No. 128, American Legion and the Alumni Association of Wayne State University.

He also served on the Department of Health for thirty-four years.

CHARLES E. STEVENS, M.D., seventy-five, Ironwood physician, died March 4, 1958, in Ishpeming, Michigan, after almost half a century as practicing physician on the range.

Born in New York and reared in Iowa, Doctor Stevens graduated from Bloomfield, Iowa, Normal School and later from the University of Illinois Medical School, obtaining his M.D. degree in 1910. He interned at the Illinois State Hospital, coming to Ironwood in 1911 to begin practice as a member of the Oliver Iron Mining Company clinic.

He practiced in Bessemer, Michigan, where he was associated with the late Dr. W. J. Pinkerton. Then, in 1942, he moved back to Ironwood and became associated with the late Dr. A. J. O'Brien.

Doctor Stevens was a senior member of the Grand View Hospital. He was a member of Gogebic County Medical Society and served as its president for several terms. In April, 1956, the Society paid tribute to him in recognition of his services in the field of medicine.

He was a member of the American Medical Association, the Railroad Industrial Surgeons Association; the Bessemer Elks lodge; the Bessemer Lions Club and Business and Professional Men's Club; the Ironwood Kiwanis Club and several lodges of the Masonic Order including the Bessemer Masonic lodge, the Minerva Chapter of Royal Arch Masons, the Gogebic Commandery, the Francis M. Moore Consistory of Marquette and the Ahmed Temple of the Shrine of Marquette.

ROGER V. WALKER, JR., M.D., thirty-two, Detroit physician, died March 19, 1958. Doctor Walker was an instructor in surgery at Wayne State University College of Medicine and member of a family prominent in Detroit medical circles since 1892. He was the son of Dr. Roger Venning Walker, one of Detroit's best known surgeons who formerly was president of the Detroit Board of Health.

His grandfather, Dr. Frank B. Walker, was a Detroit surgeon from 1892 to 1927, and his brother, Frank B., also is an M.D.

A native of Detroit, Doctor Walker was graduated from the University of Michigan in 1947 and received his medical degree from Wayne State in 1951. He served his internship in general surgery at Wayne County General Hospital and was on the surgical staff of Detroit Memorial and Detroit Receiving Hospitals from 1951 to 1956, when he became an instructor at Wayne State University.

He was a member of Zeta Psi and Nu Sigma Nu fraternities, the Detroit Surgical Society, the Detroit Academy of Surgery, the Wayne County Medical Society and the Detroit Boat Club.

Reported figures on the reliability of the vaginal smears vary from 50 per cent to 97 per cent plus in cancer detection, and the experience of the cytologist is an important factor in the reliability of the smear reports.

* * *

Radical treatment of pelvic cancer must be based on accurate and official diagnosis, not alone on a cell smear report.

* * *

The combination of the cytologic technique with palpation, adequate visualization, and biopsy confirmation will result in definite progress in the early detection of cervical cancer.

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is obtained by desensitizing patients for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction of each. Specific desensitization immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For patients that have already been skin tested by any means, send their list of offenders to the Allergy Division. Prompt 7-10 day service for all Rx's.

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NEWS MEDICAL

MICHIGAN AUTHORS

Delmar F. Weaver, M.D., Detroit, is the author of an article entitled "Free Skin Grafts and Pedicle Flaps in the Repair of Nasal Defects," presented at the sixty-second annual session of the American Academy of Ophthalmology and Otolaryngology, October 13-18, 1957, Chicago, and published in *Transactions of American Academy of Ophthalmology and Otolaryngology*, January-February, 1958.

C. J. Tupper, M.D., and **M. B. Beckett, M.D.,** Ann Arbor, are the authors of an article entitled "Faculty Health Appraisal, University of Michigan." published in the *University of Michigan Medical Bulletin*, February, 1958.

John M. Weller, M.D., Ernest W. Reynolds, Jr., M.D., and **Richard D. Judge, M.D.,** Ann Arbor, are the authors of an article entitled "Clinical Evaluation of the Diuretic Drug Chlorothiazide," published in the *University of Michigan Medical Bulletin,* February, 1958.

Harry Vander Kamp, M.S., M.D., Battle Creek, is the author of an article entitled "Schizophrenia—A Problem Also for the Internist," published in the *Wisconsin Medical Journal,* February, 1958.

Leopold Liss, M.D., Ann Arbor, and **Francisco Gomez, M.D., Detroit,** are the authors of an article entitled "The Nature of Senile Changes of the Human Olfactory Bulb and Tract," published in AMA *Archives of Otolaryngology,* February, 1958.

E. S. Gurdjian, M.D., F.A.C.S., and **J. E. Webster, M.D., F.A.C.S.,** Detroit, are the authors of an article entitled "Thrombo-Endarterectomy of the Carotid Bifurcation and the Internal Carotid Artery," published in *Surgery, Gynecology and Obstetrics,* April, 1958.

William J. Butler, M.D., Tucson, Arizona, formerly of Grand Rapids, is the author of an article entitled, "Treatment of Wilms' Tumor: Report of Three Consecutive Ten Year Cures," published in *Southern Medical Journal,* November, 1957.

Claire L. Straith, D.D.S., M.D., Richard E. Straith, M.D., and **James M. Lawson, M.D.,** Detroit, are the authors of an article entitled "Reconstruction of the Harelip Nose," read at the meeting of the American Association of Plastic Surgeons, Skytop, Pennsylvania, May 8-10, 1957, and published in *Plastic and Reconstructive Surgery,* December, 1957.

Martin J. Urist, M.D., South Haven, is the author of an article entitled "The Effect of Asymmetrical Horizontal Muscle Surgery," published in the AMA *Archives of Ophthalmology,* February, 1958.

Leonard P. Heath, M.D., Detroit, is the author of an article entitled "The Diagnosis and Treatment of Vaginal Bleeding during Pregnancy," presented at the sixty-first annual meeting of the Sioux Valley Medical Association, February, 1957, and published in the *South Dakota Medical Journal,* March, 1958.

Herbert J. Robb, M.D., Dearborn, is the author of an article entitled "Current Concepts in the Diagnosis and Treatment of Peripheral Arterial Occlusion," published in *Clinical Medicine,* March, 1958.

Frank H. Bethell, M.D., Ann Arbor, is the author of an article entitled "Purpuras and Associated Thrombotic Conditions," presented at the Symposium on Peripheral Vascular Disease co-sponsored by the Minnesota Heart Association and the Mayo Foundation, Rochester, Minnesota, September 24, 1957, and published in *Minnesota Medicine,* March, 1958.

M. H. Hendelman, M.D., F.I.C.S., Detroit, is the author of an article entitled "Torsion of Ovarian Pedicle in a Virgin," published in *The Journal of the International College of Surgeons,"* February, 1958.

Paul M. Zoll, M.D., Arthur J. Linenthal, M.D., Boston, **William Gibson, M.D.,** Detroit, **Milton H. Paul, M.D.,** and **Leona R. Norman M.D.,** Boston, are the authors of an article entitled "Intravenous Drug Therapy of Stikes-Adams Disease," published in *Circulation,* March, 1958.

George Kinsley, M.D., F.A.C.S., Detroit, is the author of an article entitled "Rectal Obstruction and Large Abdominal Mass Simulating Rectal Carcinoma," published in *The American Journal of Proctology,* February, 1958.

M. K. Newman, M.D., and **Kerwin Stief, A.B.,** Detroit, are the authors of an article entitled "Electromyographic Observation as an Aid in Clinical Diagnosis," published in *Military Medicine,* March, 1958.

Arch Walls, M.D., Detroit, is the author of an article on "Fatigue," which appeared in the section of the *Detroit Free Press,* Parade, on Sunday, March 9, 1958.

* * *

L. S. Figiel, M.D., and **D. K. Rush, M.D.,** of Detroit, are authors of an original article, "Study of Colon by Use of Hi-kilo Voltage Spot-compression Technique," which appeared in JAMA of March 15, page 1269.

F. C. House, M.D., and **S. J. O'Connor, M.D.,** Ann Arbor, are authors of an original article, "Specific Management for Lumbar and Sacral Radiculitis," which appeared in JAMA of March 15, page 1285.

E. M. Knights, Jr., M.D., of Detroit, is author of "Ultramicroanalytic methods now Adaptable for Hospital Use," which appeared under "clinical notes" in JAMA of March 8, page 1175.

* * *

Dr. Charles Gardner Child III, has been appointed professor of surgery and chairman of the department

(Continued on Page 760)

See anybody here you know, Doctor?

I'm just too much

I'm too little

I'm simply two

And I'm getting brittle

With my anemia, I'll never make it up that high



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(Continued from Page 758)

of surgery at the University of Michigan Medical School, effective January 1, 1959.

Doctor Child is professor of surgery and chairman of the department at Tufts University School of Medicine, Boston, Massachusetts, which position he has held since 1953. In Ann Arbor he will fill the post left vacant by the retirement of Doctor Frederick A. Coller. Doctor Child was born February 1, 1908, in New York City and obtained his M.D. degree from Cornell in 1934.

* * *

"Social Gerontology and Its Applications" will be the theme of the 1958 Annual Conference on Aging, to be held at the University of Michigan, Ann Arbor, June 23-25. The program will be a comprehensive review of both individual and societal aging with special emphasis placed on the applications of this knowledge to such problems as retirement, employment, health, housing, counciling, recreation, religion, and education. For program write Division of Gerontology, University of Michigan, 1510 Rackhum Building, Ann Arbor.

* * *

Population Growth.—During the decades ahead, the total number of consumers will increase faster than the producers, or working population. Between 1955 and 1975, for example, the total population is expected to rise by 63 million. However, the number of non-producers—those under 20 and over 64 years of age—is expected to increase by 39 million, while the number of producers—20 to 64 years of age—is expected to increase by only 24 million. Therefore, 62 per cent of the total increase in this period will be made up of the dependent age groups and a smaller proportion of the population will be of working age.

Consequently, increases in productivity must accompany the rise in population if growing needs are to be satisfied and living standards maintained. (From—Business Economic Review, 1st Nat'l Bank of Chicago, March 1958). * * *

Tuberculosis Patient's Diet.—The prevailing attitude at the present time is that the diet of the tuberculosis patient should very nearly approximate that of the person in good health, with somewhat more emphasis on protein and vitamin content.—Seymour M. Farber, M.D., Roger H. L. Wilson, M.D., and Nancy L. Hooper, B.S., Journal Lancet, April, 1956.

* * *

Harry M. Nelson, M.D., Detroit, Chairman of the Michigan Cancer Co-ordinating Committee and Past President of the American Cancer Society, addressed the Saginaw Valley Public Health Association in Saginaw on April 24. His subject was "What's New in Cancer Control and Treatment." One hundred and twenty-five doctors of medicine, nurses, public health workers, teachers, social workers and other civic workers attended the meeting.

(Continued on Page 762)



release from pain and inflammation

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salicylate benefits with minimal salicylate drawbacks

Rapid and prolonged relief — with less intolerance. The analgesic and specific anti-inflammatory action of BUFFERIN helps reduce pain and joint edema—comfortably. BUFFERIN caused no gastric distress in 70 per cent of hospitalized arthritics with proved intolerance to aspirin. (Arthritics are at least 3 to 10 times as intolerant to straight aspirin as the general population.[1])

No sodium accumulation. Because BUFFERIN is sodium free, massive dosage for prolonged periods will not cause sodium accumulation or edema, even in cardiovascular cases.

Each *sodium-free* BUFFERIN tablet contains acetylsalicylic acid, 5 grains, and the antacids magnesium carbonate and aluminum glycinate.

Reference: 1. J.A.M.A. 158: 386 (June 4) 1955.

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base or the hydrochloride alone. In addition, the average levels derived from the tetracycline base or the chlortetracycline base were higher than those produced by the corresponding hydrochloride though lower than those resulting from the mixture containing the base and sodium metaphosphate. In the study with chlortetracycline[6] capsules containing a mixture of the hydrochloride and sodium metaphosphate were also included in the crossover, and the average levels produced by these capsules were the same as with the mixture of chlortetracycline base with sodium metaphosphate.

Although the enhancement of blood levels of tetracycline by phosphate, either complexed to the tetracycline or mixed with the base or the hydrochloride, thus seemed fairly well established, some doubts still remained because certain reliable observers (including many whose results have not been published) failed to confirm the findings with the materials and methods they used. Further confusion seemed to be added by a subsequent report of Welch et al.,[7] who, in repeating a crossover study with capsules of tetracycline phosphate complex and tetracycline hydrochloride with and without sodium metaphosphate, found [illegible]

antibacterial activity than was observed in their absence. Oil and sorbitol did not interfere with tetracycline absorption.

Dicalcium phosphate is widely used as a filler in various capsules, including those of the tetracyclines. The authors cite a large number of other studies that implicate the presence of calcium ions as the cause of the reduced absorption of tetracyclines and show that citric acid can partially neutralize this effect. The depressing effect of food on the serum levels of tetracycline is likewise explained by the goodly amount of minerals contained in commercial laboratory diets, and they postulate that the multivalent cations may be responsible for the poorer absorption of the drug. The authors could not explain the failure of citric acid to enhance serum concentrations when administered with tetracycline base in contrast to its marked effect when given as the hydrochloride. However, they hypothesized that the ability of citric acid to enhance serum levels of tetracycline is related to its ability to form complexes [illegible] available for

"...Tetracycline hydrochloride and citric acid, in an encapsulated mixture, produced higher serum concentrations and greater urinary excretions, and hence better absorption of tetracyclines, than any other preparation studied..."

[illegible] were published simultaneously with the last mentioned report of Welch et al.[7] These data were based on thoroughly controlled studies [illegible] and include additional [illegible] exclusively [illegible] manner.

[illegible] addendum to the last mentioned paper of [illegible] et al.[7] indicates that in their study the capsules of tetracycline hydrochloride, chlortetracycline hydrochloride and tetracycline phosphate complex all contained dicalcium phosphate as a filler, whereas the capsules containing citric acid and sodium hexametaphosphate did not contain any dicalcium phosphate. This could clearly explain the discrepancies noted in that study. Likewise, the inconsistencies in other studies may very well have been due to the [illegible] of calcium as fillers in some [illegible] others. [illegible] however,

Editorial.
The New England Journal of Medicine.
258:97-99, (January 9) 1958.

ACHROMYCIN*V

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is tetracycline and citric acid

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(Continued from Page 760)

Robert J. Lyon, Chicago, is the new advertising manager and director of the Technical Exhibition of the American Medical Association. Bob Lyon succeeds Thomas R. Gardiner who resigned April 1, after forty-nine years of service with the AMA. Mr. Lyon has been assistant to Mr. Gardiner for eleven years.

* * *

W.M.A.—"A decade of service toward uniting the doctors of the world and raising medical standards," was the description by Austin Smith, M.D., Chicago, President of the United States Committee of the World Medical Association when this ten-year-old organization met March 13 in New York City.

"A milestone in the world medical field," was the statement of the long-time secretary-treasurer of World Medical Association, Louis H. Bauer, M.D., of Hempsted, Long Island. Congratulations, W.M.A.!

* * *

"Wayne State University Shows the Way" is the title of the lead article in *The Detroiter*, weekly publication of the Detroit Board of Commerce (February 17, 1958). The article briefly sketched the remarkable achievements, in just a few years, of WSU and outlined a few of the more important plans for the next ten years, as envisioned by a special committee appointed by President Clarence Hilberry. The story commented "that the coming years have increased enrollment and greater demands upon physical facilities and faculty members require bold, new thinking . . . a break with the tradition of the past and the formulation of a new concept in educational planning."

* * *

Seward E. Miller, M.D., is Director of the newly organized Department of Industrial Health of the University of Michigan's School of Public Health. Doctor Miller was made Director of the Institute of Industrial Health and Professor of Industrial Health and Hygiene of the University of Michigan in September, 1956. He is a University of Michigan Medical School graduate of the Class of 1931.

* * *

Grants for Research in Mental Health.—Grants for $1,000,000 recently were made to the University of Michigan and Ypsilanti State Hospital by the National Institute of Mental Health. The money will be used for research in Schizophrenia and Psychopharmacology, under the supervision of Ralph Gerard, M.D., of the University of Michigan Mental Health Research Institute.

* * *

Lee Carrick, M.D., Detroit, addressed the Faculty of Medicine of Port-au-Prince, Haiti, March 8, on "Dermabrasion for Acne Scarring."

* * *

The University of California School of Medicine announces a postgraduate refresher course to be held in Hawaii and on board the *S.S. Matsonia* from August 5 to 21, 1958. Courses will take place week-day mornings, 9:00 a.m. until 12:00 noon (afternoons, evenings are

(Continued on Page 764)

ST. JOSEPH'S RETREAT



Member: American Hospital Association
Catholic Hospital Association
National Association of Private Mental Hospitals
The Central Neuro-Psychiatric Hospital Association

Under the direction of the Daughters of Charity of St. Vincent de Paul

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SOOTHING ACTION . . . Kaolin and pectin coat and soothe the inflamed mucosa, adsorb toxins and help reduce intestinal hypermotility.

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LOCAL IRRITATION IS REDUCED and control is instituted against spread of infective organisms and loss of body fluid.

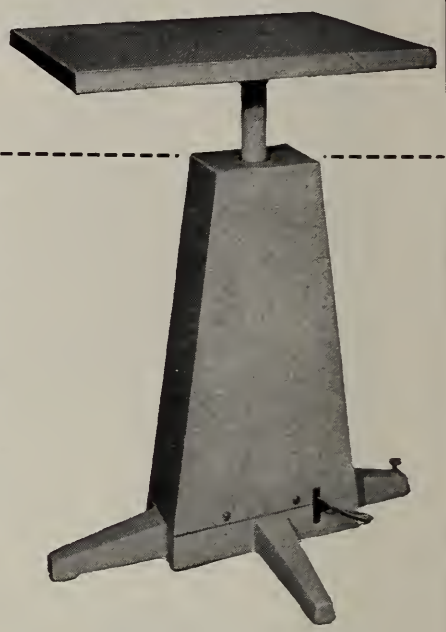
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The 17¾ x 23¾ inch table top is available in gray or brown wood grain finish. The base, base shield, and column are finished in handsome, scuff-resistant Plextone—offered in four attractive colors. Full price . . . $115.00.

A matching Reliance Stool is an ideal companion piece to the table. It features instant height adjustment and ball bearing, rubber tired casters for easy maneuverability. In full chrome finish . . . $66.00.

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(Continued from Page 762)

free). Tuition is $125.00. For information and program, write the Director of Postgraduate Division, School of Medicine, University of California, 2025 Zonal Avenue, Los Angeles 33.

* * *

The Gerontological Society will hold its eleventh annual scientific meeting at the Bellevue Stratford Hotel, Phialdelphia, November 6-7-8. For program and information on the meeting, write Warren Andrew, M.D., Bowman Gray School of Medicine, Winston-Salem, North Carolina, Chairman.

* * *

M. K. Newman, M.D., Detroit, gave a talk on February 26, 1958 before the Detroit Chapter of the National Association of Compensation Claimant Attorneys, entitled "The Medico-Legal Aspects of Electromyography."

* * *

The Academy of Medicine of Cleveland, Ohio, had as its featured speaker at their meeting on Friday, March 21, Ralph W. Gerard, M.D., Ph.D., Professor of Neurophysiology, Neuropsychiatric Institute, University of Michigan. His subject was "Schizophrenia and Psychopharmacology."

* * *

The Asia-Pacific Academy of Ophthalmology is sponsoring a good will tour of countries of the Orient following the International Congress of Ophthalmology in Brussels in September, 1958. The purpose of this tour, which is to last approximately one month, is to hold joint meetings with ophthalmologists in Pakistan, India, Thailand, the Philippines, and Hong Kong. It is expected that this good will tour will create much interest among physicians in the countries to be visited and contribute greatly to American-Asiatic medical rapprochement.

Our government has given its whole-hearted support to the plan of stimulating and facilitating a continuing exchange of information and techniques, treatments and devices for the care of the ill and the blind. The reception of a group of physicians from the West throughout Asia will certainly be most cordial and will assure the success of this enterprise. The ophthalmological and medical material in all the countries is extremely interesting and should be of great value to members of the tour.

The Asia-Pacific Academy of Ophthalmology was organized in 1957. Its principal purposes are to extend ophthalmologic knowledge and to advance the arts and sciences of ophthalmology and related sciences in Asia and in countries bordering the Pacific Ocean; . . . to stimulate research in tropical and systemic eye diseases, that are particularly prevalent in Asia and in countries bordering the Pacific Ocean; to cultivate social and fraternal relationship of physicians residing in Asia; . . . to offer postgraduate instruction in ophthalmology through the medium of lectures, round-table discussions, seminars, clinics, films and other means.

(Continued on Page 766)

A REPORT . . .

to the Doctors and Hospitals of Michigan

YOUR BLUE CROSS-BLUE SHIELD PLAN PROVIDED MORE BENEFITS FOR MORE PEOPLE . . IN 1957

Here are the facts, as of December 31, 1957:

- Michigan Blue Cross paid 547,472 hospital admissions, an increase of 2% for the year.
- Michigan Blue Shield paid for 1,307,667 medical and surgical services, an increase of 9%.
- Michigan Blue Cross enrollment stood at 3,765,609, Michigan Blue Shield enrollment at 3,750,811. Thus, 99.61% of Blue Cross members have Blue Shield, highest percentage of any Plans in the world.
- More than 18,000 Michigan business, labor, professional and farm groups now offer Blue Cross-Blue Shield coverage to their members.
- Payments to doctors and hospitals amounted to over $153-million last year alone. During their 19 years of operation, your Michigan Plans have made payments totaling $890-million for care of members.

STATEMENT OF CONDITION

Report of Condition as of the Close of Business December 31, 1957

MICHIGAN HOSPITAL SERVICE

ASSETS

Cash in Banks and Office	$ 4,926,641
Real Estate—Home Office Property	1,679,095
United States Government Securities	27,668,492
Accrued Interest	171,184
Subscription Fees—Receivable	247,278
Funds Advanced for U. S. Government Agencies	96,288
Other Assets	736,631
Total Assets	$35,525,609

LIABILITIES AND RESERVES

Reserve for Payment for Services Rendered	$20,250,289
Subscribers (Including Unreported) Reserve for Unearned Subscription Fees	7,611,636
Reserve for Contingencies	7,093,876
Other Liabilities	569,808
Total Liabilities and Reserves	$35,525,609
Total Benefits Paid Since Inception	$632,241,966

MICHIGAN MEDICAL SERVICE

ASSETS

Cash in Banks and Office	$ 2,918,242.33
Real Estate—Home Office Property	1,529,735.16
Bonds	9,252,713.47
Preferred Stocks, at Market	88,275.00
Interest, Due and Accrued	44,269.65
Subscription Fees—Receivable	117,896.31
Funds Advanced for U. S. Government Agencies	184,324.89
Other Assets	156,185.75
Total Assets	$14,291,642.56

LIABILITIES AND RESERVES

Reserve for Payments for Services Rendered	$ 7,014,390.97
Subscribers and Veterans (including unreported) Reserve for Unearned Subscription Fees	2,958,774.88
Reserve for Contingencies	4,236,991.35
Other Liabilities	81,485.36
Total Liabilities and Reserves	$14,291,642.56
Total Benefits Paid Since Inception	$256,935,528.78

BLUE CROSS-BLUE SHIELD

Michigan Hospital Service • Michigan Medical Service

441 East Jefferson Ave., Detroit 26

(Continued from Page 764)

Physicians other than ophthalmologists and their families are also welcome to join this trip!

Those desiring to participate in the postgraduate lectures and seminars on medical subjects pertinent to ophthalmology should contact William John Holmes, M.D., Liaison Secretary, Suite 280, Alexander Young Building, Honolulu 13, Hawaii.

Inquiries regarding travel arrangements should be sent to Compass Travel Bureau, 55 W. 42nd Street, New York 36, New York.

* * *

The American Psychiatric Association has announced a $100,000 grant from the Smith Kline & French Foundation to continue the Foundation's Fellowships in Psychiatry through 1960.

These fellowships were established in 1955 with a three-year, $90,000 grant from the SKF Foundation, which is principally supported by contributions from Smith Kline & French Laboratories, Philadelphia pharmaceutical firm. The program is administered by a committee appointed by the American Psychiatric Association.

In announcing the new grant, the APA said that more than 150 physicians and medical students already have benefited from SKF Foundation Fellowship awards. The programs have ranged from a study of suicide rates to extension training programs in psychotherapy and psychosomatic medicine. Almost one-third of the original $90,000 grant was used to enable staff psychiatrists from state hospitals to take advanced training at some of the nation's leading psychiatric training centers.

Visiting lectureships and teaching fellowships were established at five mental hospitals. Thirty physicians, many of them in state mental hospital service, benefited from the two extention training programs.

More than fifty medical students have been given the financial opportunity to undertake summer programs in psychiatry, thus enriching their undergraduate psychiatric studies. Of particular interest in view of the nation's need for psychiatrists is that a number of these students have indicated that they have decided to specialize in psychiatry because of their summer activities.

Members of the Committee are Drs. Kenneth E. Appel, Philadelphia, Chairman; Daniel Blain, Washington, D. C.; Henry Brill, Albany, New York; Jacob E. Finesinger, Baltimore; Francis J. Gerty, Chicago; Robert G. Heath, New Orleans; David A. Young, Raleigh, North Carolina, and Seymour Vestermark. Bethesda, Maryland.

* * *

American Board of Obstetrics and Gynecology applications for certification, new and reopened—Part I, and requests for re-examination—Part II, are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline date for receipt of application is September 1, 1958. No applications can be accepted after that date.

Candidates for admission to the Examinations are required to submit with their application, an unbound

(Continued on Page 768)

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The new WELCH ALLYN instrument case that offers you far greater

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Standard formulas for WELL INFANTS

Since age, appetite and digestive capacity vary, hospital practice favors an individualized formula for each infant.

The total daily feeding usually amounts to 2 ounces of milk *per pound of body weight*, plus 1 ounce of Karo Syrup with enough water to satisfy fluid requirements.

The newborn usually takes from 2 to 3 ounces of formula per feeding; the very young infant, 4 to 5 ounces—the daily quota yielding over 50 calories for each pound the infant weighs. The quantity per feeding should not exceed 8 ounces.

Newborns are fed at 3 to 4 hour intervals throughout the 24-hour period—the 2 or 3 A.M. feeding is discontinued after the neonatal period. In the third or fourth month the 10 or 12 P.M. feeding is discontinued, once the infant fails to awaken for the bottle. Standard but individualized formulas which constitute the hospital infant feeding regimen are shown here.

WHOLE MILK FORMULAS

Age Months	Cow's Milk Fluid Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	Feedings in 24 Hrs.	Total Calories
Birth	10	10	2	3	6	320
1	12	13	2½	4	6	390
2	15	13	3	4½	6	480
3	17	9	3	5	5	520
4	20	11	3½	6	5	610
5	23	11	4	6½	5	700
6	26	10	4	7	5	760

EVAPORATED MILK FORMULAS

Age Months	Evap. Milk Fluid Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	Feedings in 24 Hrs.	Total Calories
Birth	6	12	2	3	6	380
1	8	16	3	4	6	532
2	9	14	3	4½	5	576
3	10	15	3½	5	5	650
4	12	18	4	6	5	768
5	12	21	4	6½	5	768
6	13	22	4	7	5	768

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Composition: Karo Syrup is a superior dextrin-maltose-dextrose mixture because the dextrins are nonfermentable and the maltose is rapidly transformed into dextrose which requires no digestion.

Concentration: Volume for volume Karo Syrup furnishes twice as many calories as similar milk modifiers in powdered form.

Purity: Karo Syrup is processed at sterilizing temperatures, sealed for complete hygienic protection and devoid of pathogenic organisms.

Low Cost: Karo Syrup costs 1/5 as much as expensive milk modifiers and is available at all food stores.

Free to Physicians—Book of Infant Feeding Formulas with convenient schedule pads. Write:

Medical Division
CORN PRODUCTS REFINING COMPANY
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(Continued from Page 766)

8½ x 11 typewritten list of all patients admitted to the hospitals where they practice, for the year preceding their application, or the year prior to their request for reopening of their application.

Current bulletins outlining present requirements may be obtained by writing to the Secretary's office, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

A blood test which may prove practical for the detection of active tuberculosis has been developed at Northwestern University Medical School. The double-diffusion precipitation technique uses virulent tubercle bacilli for the antigen. The antigen substance has an agar gel base which solidifies after being pipetted into a glass tube. A second layer of agar is inserted. The tube then is filled with the blood serum to be tested for antibodies. A cloudy layer is precipitated usually within 48 or 72 hours if the serum is from a tuberculous patient. The test, which is explained in the March issue of the American Review of Tuberculosis and Pulmonary Diseases, is described as simple and reliable. It can be carried out in hospital laboratories with a minimum of equipment. However, it is only a qualitative test, providing no measurement of the amount of any of the antibodies detected.

MICHIGAN TUBERCULOSIS ASSOCIATION

Pergamon Institute has recently issued a comprehensive announcement regarding the availability of results of research and development in the U.S.S.R. and other Soviet orbit countries in the field of science, technology and medicine. This information could be of great value and utility to government departments, learned societies, technical institutes and industrial establishments, scientists, doctors, engineers, and to those interested in international scientific collaboration.

Recent reports of great scientific advance in Russia seem to demand an effort to inform ourselves. It is one of the primary functions of Pergamon Institute to fill this need by instituting large scale translation programs of complete journals, books, and individual papers in all the critical fields of science, technology and medicine.

It is also planned to hold a symposium in the summer of 1958 in Washington or London to make plans, establish extra-curricular courses, teach the Russian language and for general information. An honorary advisory council has been established including Dr. J. H. Enns and Dr. R. A. Sawyer, both of Ann Arbor.

* * *

The American Medical Golfing Association is holding its annual golf tournament in conjunction with the AMA Convention, June 23, 1958, at the beautiful Olympic Lakeside Golf and Country Club, San Francisco, California. This will be a whole day of rest and relaxation with golf, luncheon, banquet and a prize for everyone. No stone has been left unturned to assure the very best. Tee off time 8 A.M. to 2 P.M. All golfing

(Continued on Page 770)

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A facility designed to rehabilitate or to aid the addict in arresting his addiction.

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- No Leg Cramps
- More Ionized Blood Calcium
- Fewer Secondary Anemia Problems
- Better Tolerated Iron Therapy
- Economical Medication

Individualize Your Patient!

OS-CAL

Oyster Shell Calcium
Natural Trace Minerals
Vitamin D
DOSAGE: 1 tab. t.i.d.

OS-VIM

Oyster Shell Calcium
B-Complex
Vitamins A-D-C-E
Natural Trace Minerals
Ferrous Sulfate
DOSAGE: 1 tab. t.i.d.

OS-*feo*-CAL

Therapeutic Iron
Oyster Shell Calcium
Vitamin D
Natural Trace Minerals
DOSAGE: 1 tab. t.i.d.

OS-*feo*-VIM

Therapeutic Iron
Oyster Shell Calcium
Vitamins A-D-C-B6 and K
Natural Trace Minerals
DOSAGE: 1 tab. daily.

note low dosages!

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*HARDY, J. A.: *Obstet. & Gynec.* (Nov., 1956)



* J.A.M.A. *166*:158,1958; Welsh,A.L. and Ede,M. "...*prompt remissions of...acute phases.*" with TARCORTIN

R&C REED & CARNRICK / Jersey City 6, New Jersey

* 1. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.
2. Bleiberg, J.: J. M. Soc. New Jersey *53*:37, 1956.
3. Abrams, B. P., and Shaw, C.: Clin. Med. *3*:839, 1956.
4. Welsh, A. L., and Ede, M.: Ohio State M. J. *50*:837, 1954.
5. Bleiberg, J.: Am. Practitioner *8*:1404, 1957.

(Continued from Page 768)

doctors are cordially invited to attend. Handicaps scratch to 30 in flights.

For information, contact James J. Leary, M.D., Secretary, 450 Sutter Street, San Francisco, California.

* * *

The American Medical Association has established a Committee on Poliomyelitis with Julian P. Price, M.D., Chairman. Dr. Price, former editor of the *South Carolina Medical Journal* and now a trustee of the AMA, is sponsoring an active campaign to have every person under forty receive polio vaccine shots. According to the United States Public Health Service, by March 1, 1958, 62,500,000 people had received one or more shots of the polio vaccine. Only 42,500,000 of these, however, had received all three injections. Sixteen million had 2 shots and are now eligible for the third, but that leaves an estimated 48,500,000 under the age of forty who have not started the Salk vaccine at all. It is urged that every effort be made by the doctors throughout the land that these people be protected. Previous to the development of the Salk vaccine, the average for the immediate five years was 38,727 paralytic cases. Last year, there were only 5,895 cases in all, of which 2,158 were paralytic. This is a marvelous improvement and should be a convincing argument. Dr. Price is urging that medical groups, medical societies, establish clinics or programs where everyone can come and get the shots. In cases where it is a hardship, a charge of $1.00 is made for the shot or it is being given gratis. Medical society endorsements of group inoculations centers in various areas of the country have demonstrated dramatically, that physician and medical society leadership gives stature to the program and insures their success. A national advertising program is under way. The Advertising Council Incorporated, New York, Washington, Chicago, Hollywood, San Francisco, with head offices in New York, has distributed material for the "Stamp out polio campaign" in newspaper advertisements. Now is the time to start the shots for protection this summer and fall. Every doctor, every newspaper is urged to lend support to this campaign and actually stamp out polio.

* * *

John C. Heffelfinger, M.D., Secretary of the Branch County Medical Society, reports that Branch County Medical Society has to its credit a Poison Control Center. Since some time in January, the Community Health Center in Coldwater has had an operation of its own Poison Control Center. This has been a cooperative effort on the part of the Branch County Medical Society, the Community Health Center and the District Health Department.

* * *

The Ninth Seminar of the World Health Organization will be held in Minneapolis, May 26 through June 4, 1958, simultaneously with the Eleventh World Health

(Continued on Page 772)

little

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The Flavor Remains Stable
down to the last tablet.

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2-4109

(Continued from Page 770)

Assembly. An extensive program is provided and an invitation is extended to doctors, medical students, public health and social workers, nurses and others interested. Applications and requests for information should be addressed to the Committee on General Arrangements for WFUNA-WHO Seminar, 2808 West River Road, Minneapolis 2, Minnesota.

* * *

A joint banquet of the Copper Country Medical Society and the Copper Country Bar Association was held Saturday, February 22, at Houghton, Michigan. The affair is an annual occurrence, held in observance of Washington's Birthday. Attorney Joseph Romig of Houghton, a member of the faculty of Michigan College of Mining and Technology, was the speaker of the evening.

* * *

Frederick A. Coller, M.D., of Ann Arbor, addressed the annual joint meeting of the Kent County Medical Society and its auxiliary at the Manger-Rowe Hotel, Grand Rapids, on February 12. Doctor Coller, noted as a teacher of Medical history, gave a talk on Dr. William Beaumont, accompanied by slides.

* * *

A $240,000 contract between Schering Corporation, pharmaceutical manufacturer of Bloomfield, New Jersey, and the National Institutes of Health was signed recently calling for the testing of chemicals and antibiotic culture filtrates for anti-cancer activities and for screening methodology studies.

The project is designed for screening against three specified tumors and also calls for investigations into newer methods of screening of anti-cancer compounds.

* * *

Proper artificial lighting for all phases of our daily life based on new lighting standards developed on a scientific basis was discussed at the University of Michigan's School of Public Health Short Course on Light and Vision held March 19, 20 and 21 at Ann Arbor.

Among members of the special faculty for the three-day course were Dr. H. Richard Blackwell, University of Michigan; Everett M. Strong, professor of electrical engineering, Cornell University; Dr. Franklin N. Foote, executive director of the National Society for the Prevention of Blindness; Dr. Matthew Alpern, University of Michigan; Dr. Sylvester Guth, manager of the Radiant Energy Effects Laboratory, Nela Park, Cleveland; and Dr. Robert A. Boyd, University of Michigan.

* * *

The International College of Surgeons will hold the following meetings this year:

First congress of the European Federation, Brussels, Belgium, May 15-18.

Third national congress of the Iranian Section, Teheran, May 12-15.

Fifth annual congress of the Japanese Section, Tokyo, October 17.

For information, write to the Secretariat, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

(Continued on Page 774)

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Ethinyl Estradiol	0.01 mg.	Riboflavin	2 mg.
Ferrous Sulfate	50 mg.	Pyridoxine Hcl	0.3 mg.
Rutin	10 mg.	Niacinamide	20 mg.
Ascorbic Acid	30 mg.	Manganese	1 mg.
B-12	1 mcg.	Magnesium	5 mg.
Molybdenum	0.5 mg.	Iodine	0.15 mg.
Cobalt	0.1 mg.	Potassium	2 mg.
Copper	0.2 mg.	Zinc	1 mg.
Vitamin A	5,000 I.U.	Choline Bitartrate	40 mg.
Vitamin D	400 I.U.	Methionine	20 mg.
Vitamin E	1 I.U.	Inositol	20 mg.
Cal. Pantothenate	3 mg.		

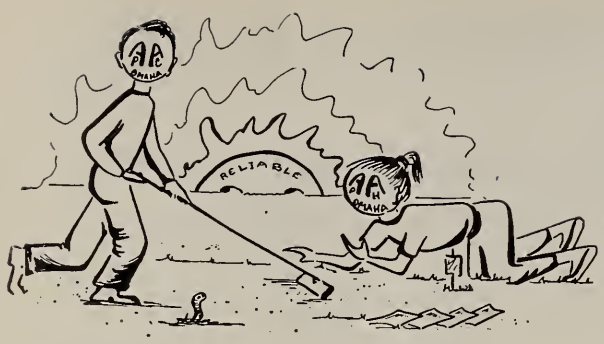
Write for Latest Technical Bulletins.

*REFERENCE: J.A.M.A. 163: 359, 1957 (February 2)

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Since 1902

(Continued from Page 772)

"The Citizen of the Year" award was presented to Lewis E. May, M.D., Howell, on February 11 by Mayor Clifton Heller. The award is given annually by the Howell Chamber of Commerce to someone it considers worthy of this honor. Doctor May was unaware of his choice for the award until the time it was presented.

Congratulations. Doctor May!

* * *

Russell F. Staudacher, Executive Secretary of the Student American Medical Association, Chicago, and former associate public relations counsel for the Michigan State Medical Society, was recently elected a trustee of the Minnesota Mutual Life Insurance Company of Saint Paul, Minnesota.

* * *

MEDICAL TELEVISION SHOWS

Shows produced by Michigan Health Council over WJBK-TV, Detroit: March 2—Home Care—(Film—"Home Care"); March 9—Epilepsy—(Film—"Something Called Epilepsy"). Guests: Z. Stephen Bohn, M.D., Raymond D. Dennerll, Detroit; March 16—Postgraduate Medical Education. Guests: C. E. Umphrey, M.D., Brock E. Brush, M.D., Detroit; March 23—Alcoholism (Film—"David, the Profile of a Problem Drinker"); March 30—Anesthesiology as a Health Career (Film—"Anesthesiology").

* * *

M.D. LOCATIONS—THROUGH MARCH 1, 1958

Placed by Michigan Health Council: Paul G. Stein, M.D., Marquette (Prison); **Assisted by Michigan Health Council:** Rudenz Douthat, M.D., Saline.



Doctors, too, *like "Premarin"*

The reasons are fairly simple. Doctors like "Premarin," in the first place, because it really relieves the symptoms of the menopause. It doesn't just mask them – it replaces what the patient lacks – natural estrogen.

Furthermore, if the patient is suffering from headache, insomnia, and arthritic-like symptoms before the menopause and even after, "Premarin" takes care of that, too.

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Recommended by Eminent Michigan Physicians

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FLAVOR MELLOWED 4 YEARS IN WOOD

•



A PREFERRED BEVERAGE FOR HOME AND HOSPITAL

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

ERYTHROBLASTOSIS FETALIS. New England Journal of Medicine Medical Progress Series, including Exchange Transfusion Technique. By Fred H. Allen, Jr., M.D., Clinical Associate in Pediatrics, Harvard Medical School; Associate Hematologist, The Children's Hospital; Associate Director, Blood Grouping Laboratory of Boston, and Louis K. Diamond, M.D., Associate Professor of Pediatrics, Harvard Medical School; Hematologist, The Children's Hospital; Director, Blood Grouping Laboratory of Boston. Boston, Toronto: Little, Brown and Company, 1958. Price $4.00.

This book is the answer to the doctor's prayer for a clear, concise, readable book on Erythroblastosis Fetalis.

The authors have produced a masterpiece for the aid of the doctor who has to diagnose and treat Erythroblastosis.

The section on Exchange Transfusion is an inspiration and a challenge to those who have to do this work.

ROBERT S. SIMPSON, M.D.

ULCERATIVE COLITIS. By Harry E. Bacon, B.S., M.D., Sc.D., L.L.D., F.A.C.S., F.A.P.S., Professor and Head of Department of Proctology, Temple University Medical Center, Philadelphia, Pa.; President, American Board of Proctology; Diplomate, American Board of Surgery and American Board of Proctology; Honorary Fellow; Royal Society of Medicine, Philippine College of Surgeons, International College of Surgeons, Brazilian College of Surgeons, Japanese College of Surgeons. Foreword by Alton Ochsner, B.A., M.D., Sc.D., F.A.C.S., F.A.P.S. (Hon.) Professor of Surgery, Tulane University School of Medicine; Director of Surgery, Ochsner Clinic and Ochsner Foundation Hospital, New Orleans, La.; Founder Member, American Board of Surgery; Past President, American College of Surgeons and American Cancer Society. Contributions by Paul T. Carroll, B.S., M.D., former Resident in Proctology, Temple University Medical Center, Philadelphia, Pa. Chapter on Anesthesia by Leroy W. Krumperman, M.D., Professor and Head of Department of Anesthesiology, Temple University Medical Center, Philadelphia, Pa.; Diplomate, American Board of Anesthesiology. 184 illustrations. Philadelphia and Montreal: J. B. Lippincott Company, 1958. Price, $15.00.

This book is an excellent and thorough presentation on the subject of ulcerative colitis. The author discusses all phases of the disease, from the etiology through the surgical treatment. Dr. Bacon emphasizes that approximately 60 per cent of the patients can be fairly well controlled by medical care, if they are carefully followed. Because of this, he spends considerable effort in presenting the non-surgical care and treatment of these patients. The surgical treatment, pre-operatively, and post-operatively, is also given complete consideration, and the complications are thoroughly discussed.

Dr. Alton Ochsner, to whom the book is dedicated, evaluates the book very nicely in the last chapter of the Foreword, written by himself:

"Dr. Bacon's contribution on chronic ulcerative colitis is the most complete consideration of the subject that has ever been prepared. It is so well done and so authoritative that physicians who might come in contact with the disease cannot afford to be without the book. The pathologist, even the pediatrician (because the disease does occur, although infrequently, in the patients under fifteen years of age) and the surgeon need this monograph in their libraries. There is no other place where so much factual information and critical evaluation of chronic ulcerative colitis can be obtained so readily and easily."

EDWARD M. CHANDLER, M.D.

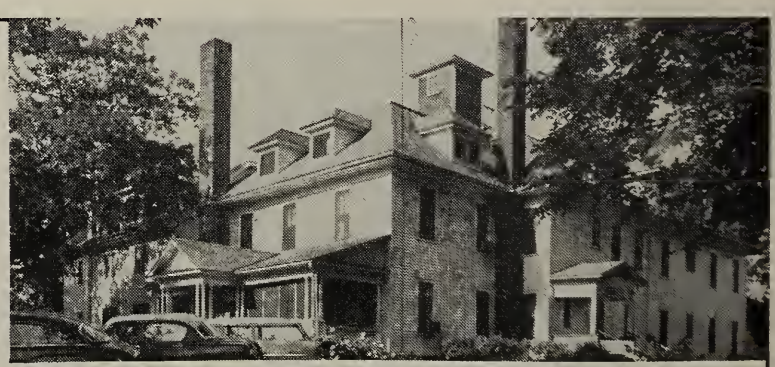
NEW AND NONOFFICIAL DRUGS. Containing Descriptions of Therapeutic, Prophylactic and Diagnostic Agents Evaluated by The Council on Drugs (formerly The Council on Pharmacy and Chemistry) of the American Medical Association, 1958. An annual publication issued under the direction and supervision of the Council. Philadelphia and Montreal: J. B. Lippincott Company, 1958. Price $3.35.

This very useful book carries the Council's new name, Council on Drugs, and the revised title, New and Nonofficial Drugs.

BOOKS RECEIVED

DISEASES OF THE HEART AND CIRCULATION. By Paul Wood, O.B.E., M.D. (Melbourne), F.R.C.P. (London) Director, Institute of Cardiology, London. Physician, National Heart Hospital, Physician in charge of the Cardiac Department, Brompton, Hospital. Second, Revised and Enlarged Edition. Philadelphia: J. B. Lippincott Company, 1958. Price, $15.00.

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RACTICAL DIAGNOSIS AND TREATMENT OF LIVER DISEASE. By Carroll Moton Leevy, M.D., Director of Clinical Investigation, Director of the Outpatient Department, and Attending Physician, Jersey City Medical Center, Jersey City, N. J.; Consultant in Medicine, U. S. Naval Hospital, St. Albans, N. Y. Foreword by Franklin M. Hangar, M.D., Professor in Medicine, College of Physicians and Surgeons, Columbia University, New York, N.Y. Illustrations by Felix Traugott. With 84 illustrations, including 23 in full color. New York: Hoeber-Harper, 1958. Price, $8.50.

ONNECTIVE TISSUE IN HEALTH AND DISEASE. Edited by G. Asboe-Hansen, M.D., Connective Tissue Research Laboratory, University Institute of Medical Anatomy, Copenhagen, Ejnar Munksgaard. New York: Philosophical Library, 1958. Price, $15.00.

HEART BEATS

(Continued from Page 646)

FINANCE COMMITTEE

Mr. Frank N. Isbey, *Chairman,* Detroit
Mr. J. William Hagerty, Detroit
M. S. Chambers, M.D., Flint
Mr. George A. Jacoby, Detroit
Mr. Read Jenkins, Detroit
Donald S. Smith, M.D., Pontiac
Mr. Alfred T. Wilson, Detroit

The elections culminated the "Heart Day" activities at the Michigan Clinical Institute. Among the out-of-state speakers were: Edgar V. Allen, M.D., Rochester, Minnesota, nationally known cardiologist and Senior Consultant in Medicine at Mayo Clinic, and Charles H. Rammelkamp, M.D., Cleveland, Ohio, Professor of Medicine at Western Reserve University.

The Michigan Heart Association, a member of the Michigan United Fund, reported that it has appropriated almost $300,000.00 this year to forty-two cardiovascular research projects in Michigan. This brings the total appropriated to underwrite research by the Association since it was organized in 1949 to more than $1,000,000.00.

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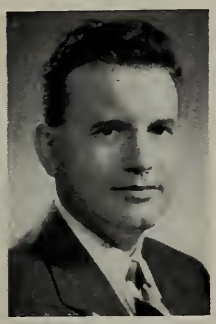
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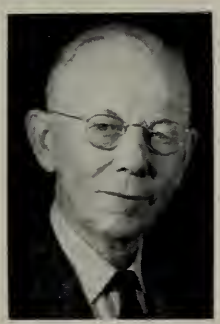
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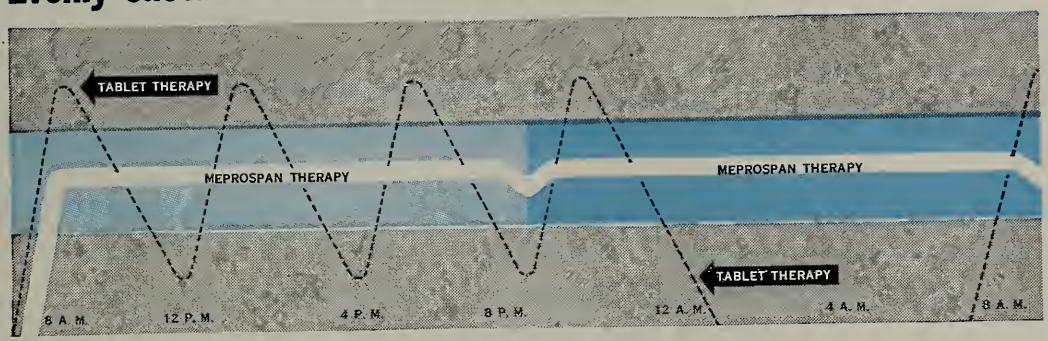
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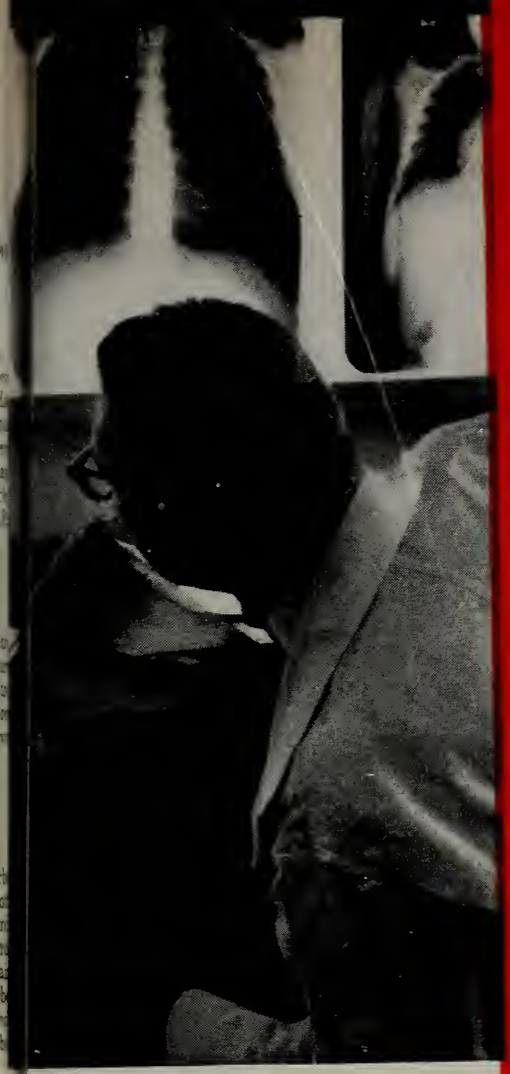
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	13	—	1
	4	—	—
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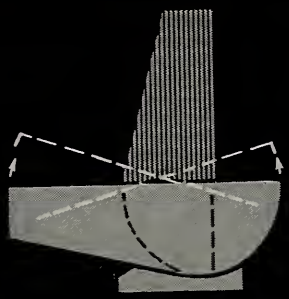
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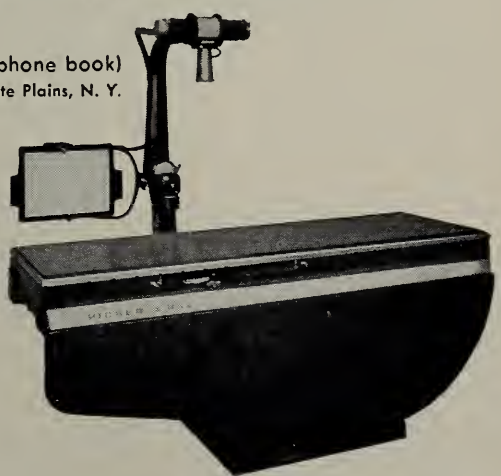
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Blue Cross - Blue Shield Meeting

The National Conference of Blue-Cross-Blue Shield, held at the Edgewater Beach Hotel in Chicago, April 27-May 1, 1958, was very well-attended. More than a thousand were registered. On the second day, there were 509 delegates, members of boards and personnel registered, not counting the ladies. This number included twenty-five from Michigan. On account of the interlocking and dual membership of many Blue Cross and Blue Shield programs, the two organizations were scheduled on alternate meetings—Blue Cross with a business meeting, and Blue Shield with a program meeting.

On Sunday, April 27, registration started at 8 o'clock. At 9 o'clock, Blue Shield plans had a business meeting including an address by President A. J. Offerman, of Omaha. After the call to order, there were greetings from the host city, roll call, minutes of the 1957 annual conference, reports of officers, reports from finance committee on budget and dues, other committee reports, unfinished business and new business.

Dr. Offerman made a very comprehensive and instructive address. In order to give an impression of belief and opinion, about five paragraphs from his address are herewith quoted:

"Our membership in all Plans has expanded to over 42 million, and the amount of money paid to physicians now exceeds 500 million dollars."

"The Commission has made a definitive statement on the Forand Bill. In my opinion, Blue Shield with its ability and willingness to cover those individuals over sixty-five years of age is the most potent argument against this bill. Incidentally, it is estimated according to our present information that of the 42 million people we now cover in our Plans, 6½ per cent of these people are over 65 years of age. It is extremely important that Blue Cross, Blue Shield, the American Medical Association, and the American Hospital Association remain closer allied and permanently committed to oppose the Forand Bill or similar legislation in order to preserve the freedom of medical and hospital practice."

"The attitude of some segments of the profession has recently caused concern about the future of Blue Shield and the consequent effect on medical practice as a free and independent enterprise. As I have repeatedly stated, I am sure the medical profession has been extremely fortunate that the public has seen fit to preserve its own independence and freedom by contributing funds to a prepaid medical program sponsored and supported by the medical profession, and at a premium far above what some of us originally felt they would be willing to pay. As a result, many patients originally treated on a charity basis, have now become private patients with a consequent increase in physician income. That this is a fact, is substantiated by the concern of medical schools about the lack of available teaching material. From the human standpoint this is good, because it preserves the dignity of the individual as one willing and able to pay his way for medical and hospital service."

"The people have accepted the principle of prepaid medical care, and it seems a foregone conclusion that they are going to obtain medical care by either voluntary contribution to a private enterprise program or by social security taxes for a government program. Blue Shield is no longer a temporary measure to defeat socialized medicine. Prepayment is now a permanent part of the economy of the country."

"It has been said that the spirit of a free nation is composed equally of its memories and its hopes. Let us be mindful of the memories of depression days and wards of free charity patients that many a young physician has never known and hope that this will not recur. It will not recur if we remain dedicated to the fundamental concept on which Blue Shield was founded; namely, that prepayment for professional services through a voluntary program sponsored by the physicians themselves is in the best interest of the public and in keeping with the traditions of medical practice which have resulted in the attainment of a standard medical care without parallel anywhere in the world today."

In the afternoon there was a joint program of Blue Cross and Blue Shield. Robert T. Evans, of Chicago, chairman of the Joint Executive Committee, presided. After the invocation, a welcome was given by Robert T. Sherman of Chicago, President of the Hospital Service Corporation and Percy E. Hopkins, M.D., of Chicago, President of the Illinois Medical Service. There were two prepared addresses. Unfortunately, they were not premimeographed for distribution. The Honorable Arch E. Northington of Nashville, Vice President of the National Association of Insurance Commissioners, the Commissioner of Insurance and Banking of the State of Tennessee, gave a very interesting talk on state's rights and public relations. Melchior Palyi, Ph.D., Chicago, consulting economist and author of several books on economics and socio-medical problems, gave a very analytical and interesting talk on "The Nationalization of Health Services," in which he pointed out what has happened in nearly every country in the world and what is happening piecemeal in this country.

A reception was held in the evening for the men and ladies.

Monday, starting at 9 a.m., four reference committees were in session, and each delegate, representative, or personnel officer was urged to appear. These committees were: Committee on Committee Reports, Committee on Constitution and By-

(Continued on Page 800)

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(Continued from Page 798)

laws, Committee on Officers' Reports, and Committee on New Business.

At 12:30 each day, luncheon was served in the Polynesian Village at small tables of eight to twelve. In the afternoon, the Blue Shield attorney's conference was held. Howard Hassard, attorney for Blue Shield from San Francisco, presided. The discussion was opened by Artemus C. Leslie, of Pittsburgh, who has been Commissioner of Insurance for Pennsylvania. He talked about the problems of the insurance commissioners and the Blue Shield and told of numerous instances, reporting a couple of cases which had gone to court. Barron K. Grier, of Washington, D. C., gave a report on the legislative situation in Washington with remarks about the bills in which physicians are or should be interested.

On Tuesday morning, April 29, there was a program report. Ira C. Layton, M.D., Kansas City, Trustee of the Surgical-Medical Care plan, gave a paper entitled "Charting a Course for Progress in Blue Shield." He discussed public relations matters and co-operation with the public. He recalled that three years ago, James Bryan published a paper in *Medical Economics* entitled, "Blue Shield Faces Hour of Decision," in which was the statement," if Blue Shield is to do the job it was created for, it must focus on at least seven specific aims." These aims are not yet accomplished but much has been done. In conclusion, he quoted from Giuseppe Mazzini: "Slumber not in the tents of your fathers. The world is advancing—advance with it." And from Francis Bacon: "He that will not apply new remedies must expect new evils."

On Tuesday afternoon, there was a medical directors' conference to which all were invited. The topic of the conference was "Relative Value Fee Schedule on a National Basis." Moderator was H. R. Pezzuti, M.D., of Harrisburg, Medical Director of the Medical Services Association of Pennsylvania. The opening address was given on "The Connecticut Version" by W. H. Horton, M.D., New Haven, Executive Director of the Connecticut Medical Service, Inc. He outlined research work that was done five or six years ago in Connecticut. The theory behind the relative value fee schedule, the reasons for it, and what it was attempting to accomplish, that is, to equalize the values and efforts, time, knowledge, skill necessary for the service which it is rendered, including also its value to the patient, was never brought into effect in Connecticut. C. D. Moll, M.D., of Detroit, Medical Director of Michigan Medical Service, discussed the reasons why Michigan adopted the relative value fee schedule. He gave a very elaborate and enlightening discussion of the reasons, what is to be accomplished, how the schedule was adapted from the California program and what the California program attempted to do and is doing. In Michigan, there is only one Blue Shield and that is an integral part of the Michigan State Medical Society, the House of Delegates being the membership and electing the Board of Trustees. Two independent committees have been working for nearly two years: Dr. Owens' Committee representing the House of Delegates, and Dr. Slagle's committee, representing The Council. Preliminary reports made to The Council in January, 1957, warranted the calling of a special meeting of the House of Delegates for April 27, 1957. This was the second such meeting of the House of Delegates in its entire fifty-five years of history. An opinion study was authorized (which Dr. Moll exhibited) involving about 60,000 questionnaires to the public, about 1,000 extended personal interviews, and two questionnaires to the Medical Society members. This survey, which was completed the day before the September meeting of the Society, and the two committee reports indicated the interest of the profession in a relative value scale.

Dr. George W. Slagle, President of the Michigan State Medical Society and chairman of the Slagle Committee, by request made some interesting and relative remarks and answered questions.

Nicholas F. Alfano, M.D., Newark, Executive Vice President and Medical Director of the Medical-Surgical Plan of New Jersey, made comments telling of the experience and attempts of the New Jersey plan. An open discussion and many questions followed. The meeting lasted about two and a half hours.

On Wednesday, April 30, the business session of the Blue Shield Plans was presided over by Dr. Offerman, of Omaha, President of Blue Shield Medical Care Plans. Reports of the reference committees were received and acted upon piecemal, with discussion and some changes. Each committee had many pages of reports indicating very thorough study of the problems and shrewd analyses.

(Continued on Page 802)

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(Continued from Page 800)

Following the luncheon, the annual meeting of the Blue Shield Commission was held, and later the annual shareholders' meeting and the Board of Directors meeting of M.I.A., the organization through which national accounts are handled.

Thursday, May 1, was devoted to a program session with Carlton E. Wertz, M.D., of Buffalo, presiding. Several topics were up for discussion: (1) Research—The Key to Market and Product Development, (2) Blue Shield and the National Account Market, (3) National Enrollment and Partnership between Blue Cross and Blue Shield.

On the Tuesday forenoon session, Louis H. Bauer, M.D., New York City, chairman of the Board, United Medical Service, Inc., Past President of the American Medical Association, and Executive Secretary of the World Medical Association, gave a very interesting address on "How Trustees Can Best Serve the Future of Blue Shield." Following are excerpts from his remarks:

"You know that wherever the profession has stood together as a unit, it has been able to make a successful stand against complete government encroachment."

"Today, in the United States, since most patients use insurance as a means of paying for their medical care, the profession has an excellent opportunity to make a firm, united stand against our government's further intervention in medical care. All that the doctors need do is to join behind one, single plan that they themselves plan and control. (Whether or not the physician approves of insurance is beside the point.) Insurance is here to stay, whether or not we like it. There is absolutely no turning back to the system in vogue that we knew twenty-five or more years ago."

"Most important—Blue Shield must never become a third party! It must only continue as an agent of the medical societies, doing for them what they cannot do for themselves—administrative work, devising contracts, and so on. It is up to the medical members of the board to see to it that their medical societies are constantly informed of these activities; and these same medical members must bring the voice of the societies to board meetings."

"Such matters as co-insurance, experience rating, and service benefits are proper matters for Trustees to discuss. Their decisions, however, must reflect the many responsibilities they have to the public and the medical profession. Trustees must decide whether Blue Shield is to be a community plan or a plan for a favored few. But we must keep uppermost in our thoughts, that if Blue Shield does not protect the *entire* community—including the poor risks—the government will step in. When it does, it will not just take the poor risks, but will sweep up everyone without exception. All one has to do is to look abroad to see what will happen if voluntary health insurance fails in this country. I will go even further and say that if Blue Shield should fail—then we shall most assuredly see government medicine moving in to take over."

"Blue Shield must not fail, but it will unless the Plans work in close co-operation with their medical societies, and convince them that the plan is not a third party but only their agent, carrying out certain technical, administrative aspects of the program, the doctors, themselves, have set up." "Now, may I make an appeal to the profession itself? Medicine can no longer be practiced as it was twenty-five years ago. It involves not only art and science but socio-economics as well. Physicians as individuals and medical societies as a whole must take an interest in the whole program of rendering adequate medical care. Unless it does, the leadership will be taken away by others."

"During the past eleven years, I have made two trips around the world and twenty-one trips to Europe (and I'm going again tomorrow). I have seen what has happened when the medical profession weakened and permitted itself to be thrown off the tracks by a government machine. It have seen the debasing of the standards of medical care. I shudder to think what will happen—in fact what is happening right now—in this country as a result of the apathy of the profession."

At the close of the Wednesday session, Carlton E. Wertz, M.D., of Buffalo, President-Elect, was installed as President. He has been President of his State Medical Society, President of his Western New York Blue Shield, chairman of the Board, member of the AMA Council on Medical Service, member of the Blue Shield Commission. His address of acceptance expresses the opinion and ideals of the leaders of the Blue Shield movement in the nation and is herewith presented:

"It will be a most pleasant task and a privilege to serve you this year. The honor you have conferred upon me will be most treasured and I shall try to match up to the high standards set by my predecessors. This will be most difficult.

"Years ago when a handful of us would gather together informally and talk about our local problems, little did any of us dream that the physician-sponsored plans would grow into the great Blue Shield organization of today, stretching across this great land and even over the seas—an organization of more than 42 million subscribers and paying over $500 million dollars in claims per year.

"In this old group were McCann of Massachusetts, Perry of Pennsylvania, the late Dr. Scott of New Jersey, one or two from Michigan, and Fred Elliott and myself from New York. We can all be justly proud of the wonderful achievements accomplished in a few years.

"Blue Shield, to continue and survive, must be dynamic. We cannot rest on our past laurels. We must broaden our horizons. We must experiment. The challenge we face today is greater than at any time in our history. Is the time not at hand when we should do some deep soul searching and even apply the brainstorming and creative thinking technique to help solve our problems?

"Blue Shield, created by physicians to help the public meet the cost of medical care, must remain a direct agent of the medical profession in this socio-economic movement. There are those who are preaching that the patient (subscriber) is no longer capable of choosing his own physician and that the fee for service is obsolete. This foreign philosophy is against all individual rights and strikes at the very roots of our American liberties.

"Blue Shield, to my mind, is the only bulwark the American people and the medical profession have to protect the free enterprise system as far as medical care goes. Blue Shield cannot survive without the complete understanding and support of the medical profession.

"The public, by its wide acceptance of prepaid medical care insurance, have expressed their desire. It is up to the medical profession and Blue Shield to fulfill their needs."

in HAY FEVER

Family Physicians use

specific desensitization for *lasting immunity

. . . easily, pleasantly and economically

SPECIFIC DESENSITIZATION . . .

is easily accomplished, quickly and accurately by any physician. Simply scratch test each patient by using activated Barry allergens to determine what offends the patient. Then send a list of these offenders with their reactions to Barry for the preparation of a specific desensitization formula which promotes *lasting active immunity*. For scratch testing your patient, use the Barry Pollen-Pack containing 21 tests of Tree, Grass and Weed pollens including Fungi and House Dust, all botanically correct for your locality. Safe, simple, time-proven technique complete with directions for your nurse.

LASTING ACTIVE IMMUNITY . . .

is obtained by desensitizing patients for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction of each. Specific desensitization immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For patients that have already been skin tested by any means, send their list of offenders to the Allergy Division. Prompt 7-10 day service for all Rx's.

*write for free literature

FREE
Scratch Test Set
with each Rx Specific Desensitization Set prepared according to your patient's own skin test reactions.

BARRY LABORATORIES, INC.
Allergy Division
DETROIT 14, MICHIGAN

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since 1928

Michigan Medical Protective Insurance

By C. E. Umphrey, M.D.

According to a recent report, Mr. Melvin M. Belli, an attorney, claims he has won 100,000 dollar awards, and up, for patients and that more adequate settlements of 500,000 dollars and up are on the way. The average malpractice premium across the country is probably about $100. That means that it would take the entire insurance income from 5,000 doctors for one such award. In northern California, we are told in the same article, that one out of every fifty-two doctors has a suit pending. Insurance-wise, the entire premium income from the practicing medical profession of this state could be wiped out in one such judgment, if we had a group type insurance. Bringing this problem closer to home, any one of us could have our life-time holdings destroyed, unless we had $500,000 coverage.

As is customary when problems like this present themselves, pressure is exerted on our House of Delegates to have an investigation made. The Council, in turn, is then instructed to appoint a committee to study the entire malpractice insurance program and bring back constructive suggestions.

Your committee recognized many of the component elements and pronounced it a colossal undertaking. We would like at this time to pay tribute to the extensive study made by the AMA in 1957. We realize the limitations of any investigation of claims because many physicians would refuse to divulge what they considered to be personal and confidential. We wish to thank Vice-president, T. E. Haberkorn, and the two local representatives, George A. Triplett and Richard K. Wind of the Medical Protective Company of Fort Wayne, Indiana, for their most valuable help.

It is impossible for anyone to secure complete statistics on malpractice claims, suits or losses because such a record does not exist. There are no available records of malpractice claims in Michigan. The only records of any kind are those that are held in the files of the various insurance companies and these, of course, reflect only their own experience and are usually held confidential. When cases go beyond the trial stage so as to bring decisions in the Appellate or Supreme Courts, such decisions are reported and a permanent record is kept. The first record of "reported" malpractice cases was made by the Medical Protective Company at the beginning of the century and has been kept up to date ever since. The first Appellate Court malpractice decision was rendered in 1794. Since that time, the number has grown to slightly over 2,000 for the entire country. The first Appellate Court decision in Michigan on a medical malpractice case was in 1867. Since then, the record in ten-year periods is as follows:

1867 to 1876	3
1877 to 1886	5
1887 to 1896	3
1897 to 1906	3
1907 to 1916	14
1917 to 1926	8
1927 to 1936	22
1937 to 1946	10
1947 to 1956	14
	82

From these data, we conclude that the present situation does not bear out the claim that malpractice suits are increasing by leaps and bounds in Michigan to this date. We are informed, however, there is a change in the attitude of the Courts.

Though there can be no complete record anywhere on malpractice claims, suits or losses, it appears that the closest to a complete record is that held in the files of an insurance company that is reported to insure more than two-thirds of our members in Michigan. Its experience showed a marked upswing in 1956 in medical malpractice suits, filed in Michigan. Fortunately, there was a noticeable abatement in 1957. Such sporadic departures from the norm are not uncommon.

Big figures of an inflationary period are conducive to big thinking on the part of the physician when he thinks of the malpractice insurance he should carry. It is not the purpose of this report to tell our members how much insurance each should carry individually. We believe the amount will vary considerably with individual circum-

Report to the Executive Committee of The Council by a Special Committee to Study Medical Malpractice Problems and make report. Ordered published for general interest of the members by the Executive Committee at the meeting of April 15, 1958.

stances and so should be decided by the physician himself. Although, as a matter of cold statistics, we are informed by one large carrier of malpractice insurance that of all the cases that company disposed of in Michigan in 1957, none required the payment of more than $5,000.00, we warn that too much reliance should not be placed on such figures as a guide to determining adequate policy limits. Michigan has been fortunate to date but times and conditions are changing. Among the factors which foreshadow more and larger recoveries are, "Appellate Courts of much more liberal views, a more claims conscious public, larger verdicts in all types of liability litigation and a nationwide tendency on the part of the courts to overturn old rules and substitute new and vastly more "liberal" ones.

The use of a grievance committee, or mediation committee or whatever else it may be styled, may serve a beneficial purpose in disposing of complaints involving questions of fees, thereby preventing litigation, but when it is permitted to become involved in questions of alleged negligence or malpractice, it treads on extremely dangerous ground. The thinking of the legal counsel of the Medical Society of the State of New York on this question was indicated on page 1978 of the June 15, 1956 issue of the *New York State Journal of Medicine* as follows:

> "The Medical Society of the State of New York has not given the Judicial Council Authority to hear or render decisions regarding complaints registered by lay persons against physicians.
>
> "Brief consideration of such a situation leads one immediately to the conclusion that if the Judicial Council were given authority in such matters, it would interfere with the due legal process in suits for malpractice."

It goes without saying that any physician involved in a complaint of alleged malpractice desires above all else to have it kept confidential. It becomes anything but that after processing by a committee. What is worse, the complainant's attorney may subpoena into court any record the committee may have and use it, if it happens to support his case against the physician. In such event, the physician might also have a case against the committee. We have in Wayne, perhaps the closest constructive aid to the membership, in the Counselor's Service, where the physician can call for advice on any problem he may encounter, with no records kept.

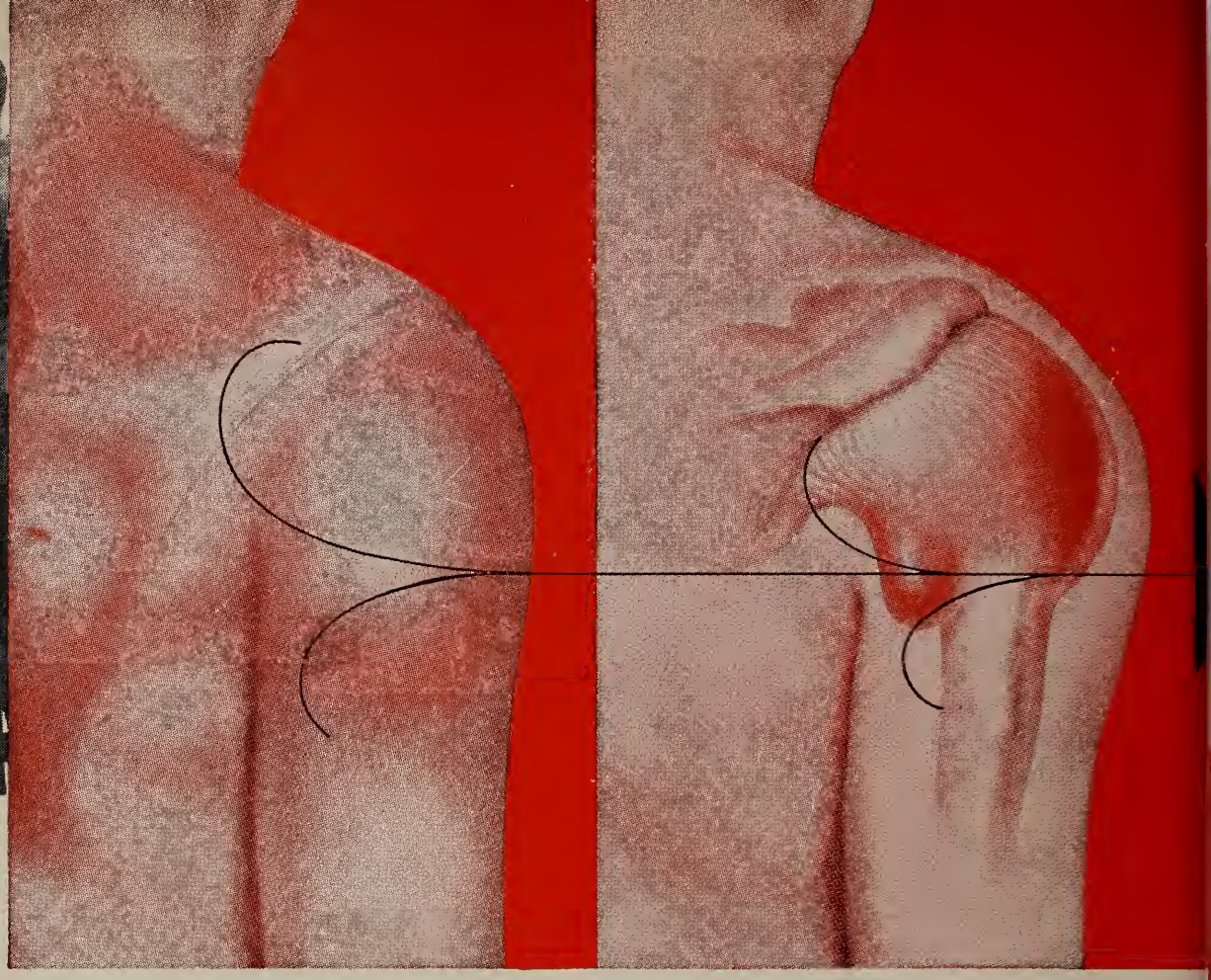
The advantages and disadvantages of group professional liability insurance by state medical societies have been extensively discussed. In the two states which have had the most experience, the malpractice situation has become much worse and the liability insurance rates increased beyond all anticipation. In one case, two insurance companies have declined to reinsure because of heavy losses, and a third company has again increased the rates and threatened to withdraw almost on the same date. In New York, the group insurance began with a basic premium of $18.00, which was a few dollars lower than the prevailing rate elsewhere at that time. Today, the group basic rate is considerably more than ten times the original rate. Thirty-five hundred of the members have left the group. It was exploited on the promise that everyone in the Society would be insured. In recent years, a supervisory committee has stated that 20 per cent of those sued were repeaters and the remaining 80 per cent should not be made to suffer on their account. Strict rules and rejection have been imposed. Today, there are many classifications according to locality and type of practice. In New York, it would appear that the group type of insurance has split the society instead of binding it closer together. Perhaps, we who watch from the sidelines should be most appreciative of the experimental work being done, but confine our own efforts toward broadening and improving what we have.

It is the committee's opinion that chances of greatest advancement lie in the field of prevention. We believe that most can be accomplished if we try to eliminate malpractice and negligence according to the following standards:

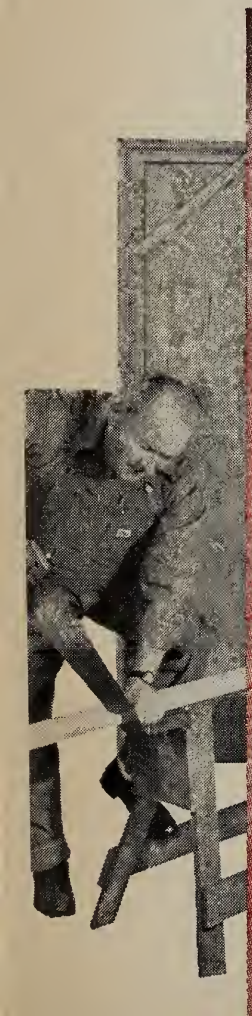
1. Keep accurate records permanently. Suits sometimes arise scores of years after the services have been rendered.
2. Keep abreast of the average standards of one's field of practice in one's locality.
3. Avoid criticism of the work of other physicians.
4. Avoid admissions against one's own interest on services one himself has rendered, or anyone has rendered for him. Any such admission is likely to be used against the physician.
5. Learn and observe the legal duties to the patient.
6. Use x-ray as a diagnostic or confirmatory aid where that is the established practice.
7. Guarantee no results. Such guarantees are not ethical or insurable.
8. Co-operate with the patient in securing consultation. This is excellent defense over and above good treatment.
9. Give proper notice of termination of services so as to avoid charges of abandonment.
10. Secure proper written consent for operation. Without such consent one may be charged with assault.

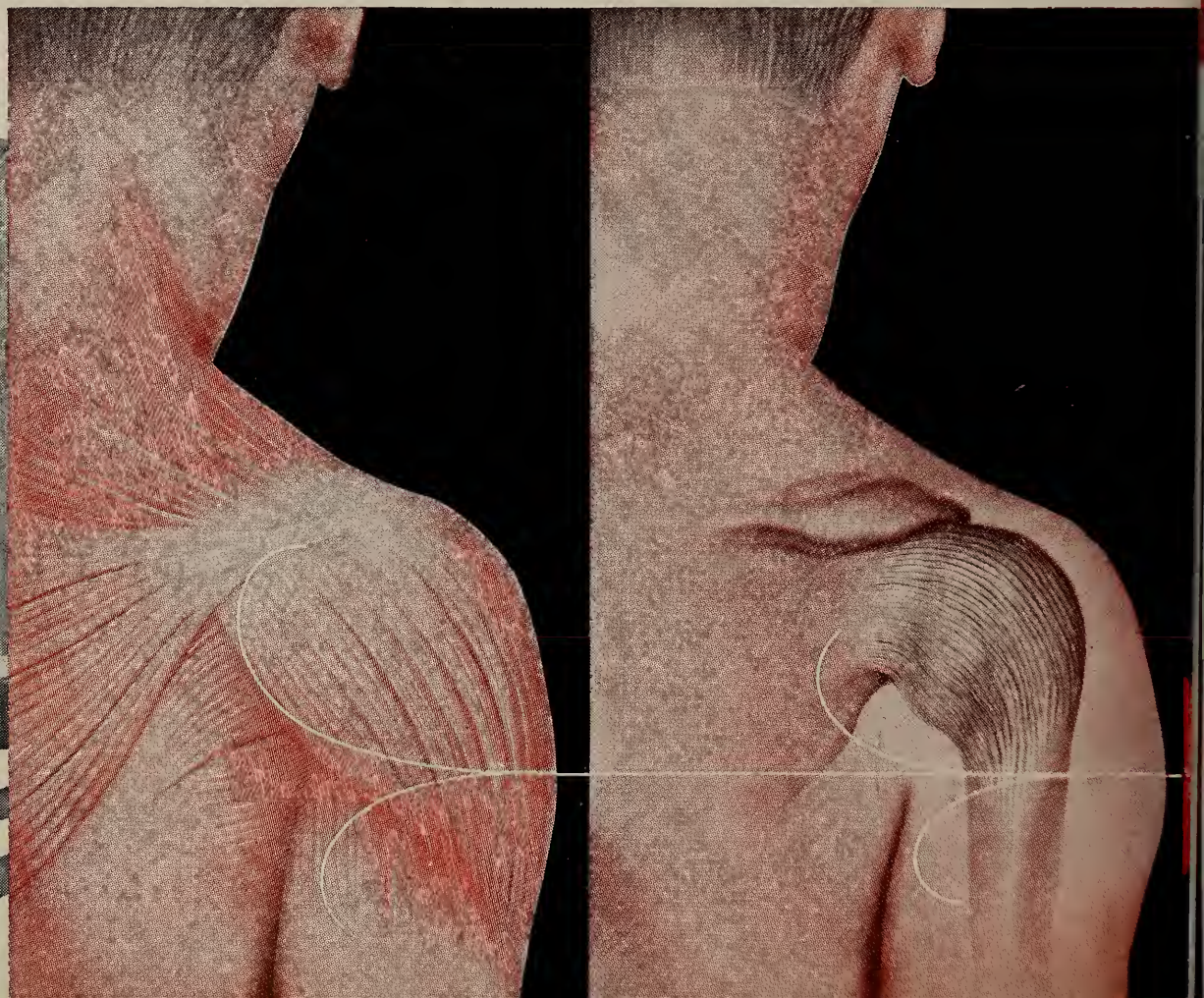
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"Rheumatoid arthritis is a constitutional disease with symptoms affecting chiefly joints and muscles."[1] "Pain in the affected joint is accompanied by splinting of the adjacent muscles, with resultant 'muscle spasm.' "[2]





Unusual Antibacterial and Anti-infective Properties. More rapid absorption . . . higher and better sustained plasma concentrations . . . more soluble in acid urine than other sulfonamides . . . freedom from crystalluria and absence of significant accumulation of drug, even in patients with azotemia. [1]

Unprecedented Low Dosage. Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. (1 to 2 tablets) maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides —a notable asset in prolonged therapy. [2]

New Control Over Sulfonamide-sensitive Organisms. KYNEX maintains the prolonged, high tissue concentrations of primary importance in treatment of urinary infections . . . a therapeutic asset toward preventing manifest pyelonephritis as a complication of persistent bacteriuria during pregnancy and puerperium. Maintenance of sterile urine in such patients was accomplished with 1 tablet of KYNEX daily. [3]

KYNEX*

Sulfamethoxypyridazine Lederle



Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive ¼ of the adult dosage. It is recommended that these dosages not be exceeded.

KYNEX—WHEREVER SULFA THERAPY IS INDICATED

Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

References: 1. Grieble, H. C. and Jackson, G. G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958. 2. Editorial *New England J. Med.* 258:48-49, 1958. 3. Jones, W. F., Jr. and Finland, M., Sulfamethoxypyridazine and Sulfachloropyridazine. *Ann. New York Acad. Sc.* 60:473-483, 1957.

*Reg. U. S. Pat. Off.

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Pearl River, New York

(Continued from Page 805)

11. Keep the relations with patient strictly confidential.
12. Avoid all mention of liability insurance
13. Avoid unapproved or experimental procedures.
14. Be courteous and tactful in relations with patients.
15. Inform patients of any absence from practice and make available a competent substitute.
16. Be sure instructions cover prescriptions and care of the patient.
17. Secure proper authorization for autopsy.
18. Have, whenever possible, unprejudiced witnesses of one's relations with patient, especially female patients.
19. Where fees are of sizeable amounts, discuss before services are rendered.
20. Postpone suit for collections of fees until statute of limitations of malpractice has expired. (Two years, in Michigan, since patient last saw the physician).
21. Secure legal advice before attending a coroner's inquest as a witness.
22. Secure legal advice on how to make one's personal assets less vulnerable to damage suit attacks.
23. Avoid sterilization procedures except where approved by the Sterilization Committee and be sure all records and permits are in order.
24. Avoid telephone prescriptions without proper vertification.
25. Keep all equipment in proper working order.
26. Avoid fields in which one is not properly qualified.
27. Keep all promised appointments.
28. Give proper instructions to assistants and check to see they are observed.
29. Maintain due frequency of visits for proper care of patient.
30. Exercise due care at all times, especially in the labeling of bottles or other containers, in the use of mouth gags, in the close observations of costs and similar procedures.

The law department of the American Medical Association has published an excellent book of medical, legal forms. Included are consent forms for using still or motion pictures of a patient; for admitting observers; for televising operations; for examining hospital records. There are also: agreements for artificial insemination, application to serve as donor and consent of wife of donor, letters to patients who fail to keep appointments or fail to follow doctors' advice, authorization for autopsy and tissue donation and statement of patient leaving hospital against advice, and many others. We recommend these to the attention of every doctor.

Gaylord S. Bates, M.D., in the *Detroit Medical News* of December 9, 1957, has published a most excellent discussion entitled "Origins of Self Regulation in Medicine." He says, in part:

"From years of acquaintance with medical students and hospital staff residents, I have learned of their interest in the practice of medicine as it is touched by law and by questions of moral judgment. I have also been aware of their ignorance in these matters for little or no attempt is made to instruct them formally. It has seemed to me that we teachers must convince them of the obligations to society that go with the privilege of practice as represented by licensure; obligations spelled out in the law.

"It has been my opportunity on occasion to introduce them to our code of ethics, and to the awesome world of organizations in medicine. Every one of these associations of physicians, from the hospital staff, through the County Medical Society to the national organizations . . . has an expressed idealism and moral code. I have wanted these students to feel that it is not enough to stay within the law; that the idealistic efforts of our medical organizations are a necessity to maintain the high standing of our profession in society, and that they must support them.

"Their questions have reflected some skepticism over our medical idealism which is expressed in a code of ethics and a relentless effort to raise the standards of medical practice. The most cynical have charged that our idealism is economic self-interest in fact, sweetened on occasion by the spirit of the "do-gooder." To be convinced and to be convincing, I have sought in history for the origins of our professional ethics, and our relation to society as expressed in laws governing the practice of medicine. The two are closely related, have their own realms of activity and are always in uneasy balance."

It is an inescapable conclusion that there should be more medico-legal teaching in the medical schools. This should be sufficiently comprehensive as to give the young physician a working knowledge of licensing laws, the multitude of regulatory laws under which a physician must practice, and at least the basic principles involved in malpractice cases. His education in this important field should be continued at the intern and resident levels. On admission to the county medical society and to the hospital staff, it should be ascertained that he fully understands his legal, ethical and moral obligations.

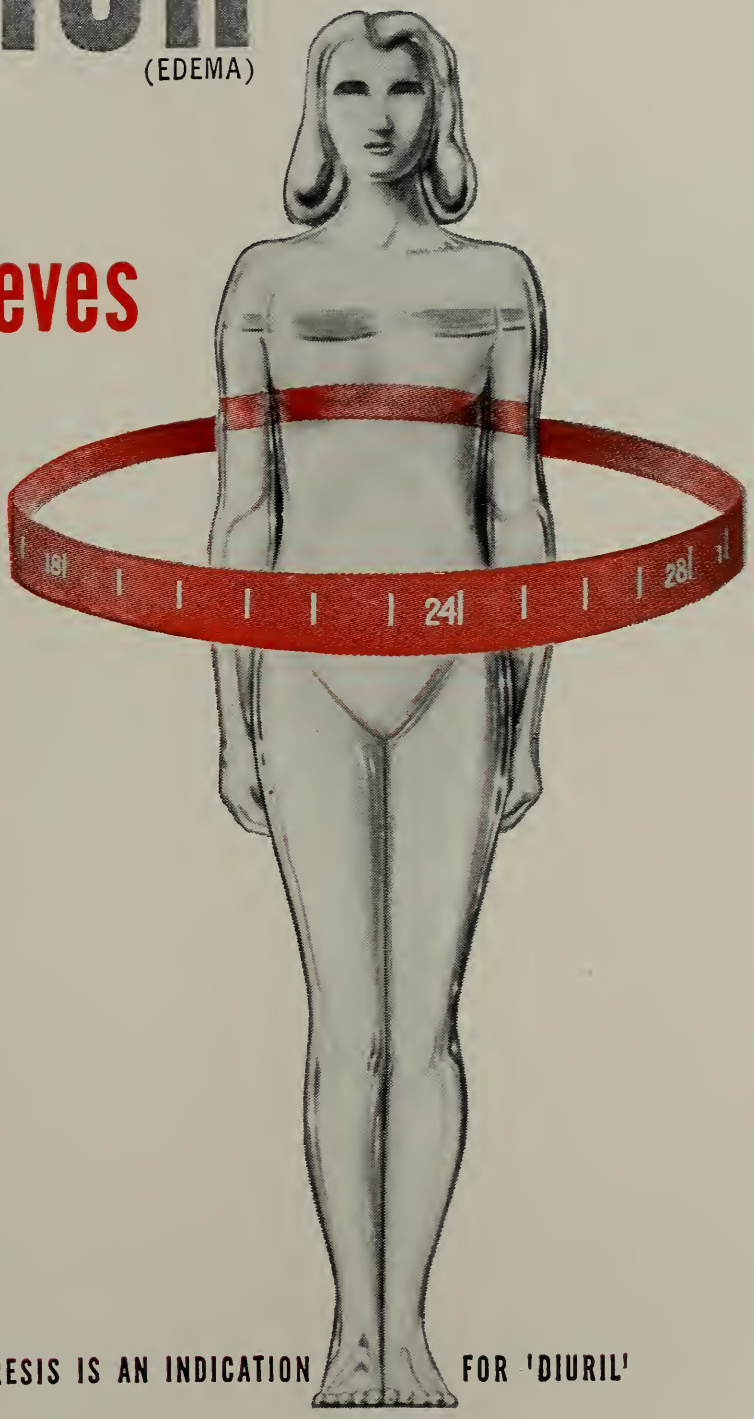
Having thus disposed of some of the things we in the profession may do toward the prevention of malpractice claims and suits, we now come to what others, who should have the same objective, may do in co-operation with us. It cannot be overlooked that insurance authorities state from their statistics that it is the unmerited claims and suits that have always predominated. As it looks from here, the prevention of unmerited claims and suits is as much the problem of the insuring company as it is of the physician. Such being the case, it is obviously vital to the physician's security that he be properly concerned, not just with having professional liability insurance, but particularly that he have it where a comprehensive, effective program of prevention is an accomplished fact.

What should such a program include? A sage has said, "Knowledge is power." With this in mind, it appears that an insurer who, through

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tension
(EDEMA)

quickly relieves
Distress
Distention
Discomfort



ANY INDICATION FOR DIURESIS IS AN INDICATION FOR 'DIURIL'

(Continued from Page 810)

malpractice legal experts, periodically informs his insured physicians on the legal fundamentals of their professional liabilities, on the trends in court decisions, on significant opinions affective to their practice and on general information that should help keep them out of trouble, takes a long step toward the prevention of unmerited litigation. By observing what the law requires, the physician can better protect himself in his relations with his patients.

Adjunctive to the dissemination of such authoritative, informative material, there should, of course, be personal contact with the physician by insurance advisory representatives who, by their experience with the physician's problems under actual working conditions, can counsel and guide him to the best advantage. Such work in such a distinctively different insurance field requires a knowledge and experience of the exacting and intricate demands peculiar to the field of professional relationship that cannot be acquired from the usual ordinary insurance adjustment of claims in other fields. In this field, the insurance relationship should be treated as confidentially as the physician's own relations with his patient.

Another avenue of prevention concerns the insuror's attitude toward defense. Insurance that promiscuously settles claims actually serves to encourage other unmerited claims. Rhode Island physicians are risking publicity and fighting suits rather than settling quietly out of court and out of the glare of newspaper headlines. As a result, despite Rhode Island's highly concentrated population, they have one of the lowest malpractice rate schedules in the country. Insurance that can at best muster but a weak, inexperienced and ineffective defense provides an invitation to damage suit lawyers to accept and prosecute unmerited claims and suits.

As we see it, professional liability insurance is an insurance company's job, not the physician's. It improves with commendation, not condemnation. Busy physicians cannot contribute enough time to manage properly a business with so many complex facets. It should be a confidential matter between the physician and his insuror to a point, but let us not cringe if our cause is just. It should be reassuring. It should respect trial by jury, not try to usurp it. It should practice individualism when feasible, not collectivism. It should honor the profession, not discredit it. It should, in short, be permeated with the purpose of prevention.

In summary, we offer the following conclusions:

1. Medicine with its ethical and legal responsibilities should be taught in the junior year of medical college, reviewed in the senior year, the intern year and when the doctor joins his County Medical Society. The course of training should adequately cover the thirty directives outlined in this paper.

2. We do not believe that group type of insurance is feasible. If a good program can be demonstrated in the future, it should be given every consideration.

3. Because of inflation, we must think in terms of present-day economics. The insuror of about 75 per cent of the physicians in this state offers policies of $5,000 to $15,000 at $35, of $10,000 to $30,000 at $60, and of $25,000 to $75,000 at $84. In the future, if the trends demand more protection, we have been assured it will be forthcoming.

4. We believe a physician, whose type of practice is more hazardous, should be privileged to obtain more protection which can be obtained through almost any insurance agent.

5. We believe interns and residents should receive special reduced rates, if that can be arranged.

6. We believe the physician, the profession, and the insuror should co-operate to the fullest in suppressing fraudulent claims. No offer should be made to settle hurriedly out of court.

7. We should keep in mind, that the physician, who is genuinely interested in his patient and has his emotions well controlled, is seldom sued.

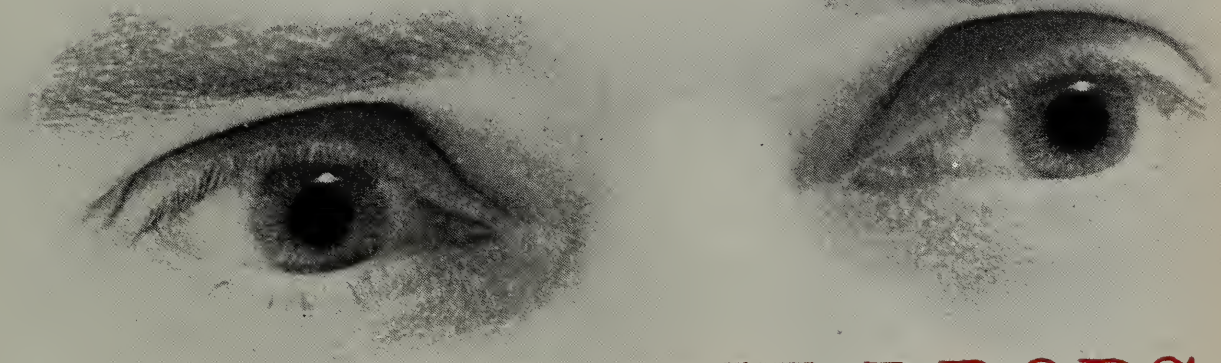
8. Finally, a physician should regard his efforts as part of a team accomplishment. Your lifetime accumulations are not due to your efforts alone. If you have not protected your family legally, you are mistreating those you love. Do not subject them to financial oblivion due to chance miscarriage of justice.

Malignant papillary cystadenomata of the pancreas usually occur to the left of the midline, are painless round masses noticed by the patient or the physician doing a routine examination, and usually give no symptoms.

* * *

There are no serological or other laboratory tests that will furnish diagnostic information about cancer of the pancreas.

long day ahead
morning sun glare – eyes irritated
can't read – coach smoky
leave the work – let's lunch
back to work – eyes worse
take afternoon off – see doctor
pick up VISINE – home again
let's try the drops
nice dinner – read the paper
eyes comfortable – good TV play
use VISINE – bed 11:30
long day behind
turned out well **see the difference**



new VISINE* EYE DROPS

BRAND OF TETRAHYDROZOLINE HYDROCHLORIDE

"an excellent ophthalmic decongestant . . ."[1]

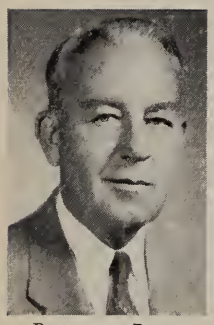
almost immediate relief of hyperemia, soreness, itching, burning, tearing — no rebound. vasodilatation, mydriasis, photophobia or systemic effects. / *supplied: in 1/2 oz. bottles, 0.05% tetrahydrozoline hydrochloride in a solution containing sodium chloride, boric acid, sodium borate; with sterile eye dropper.*

*Trademark

1. Grossmann, E. E., and Lehman, R. H.: Am. J. Ophth. 42:121, 1956.

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Beaumont Memorial Foundation Elects Doctor Beck as President



President Beck

Otto O. Beck, M.D., of Birmingham, Past-President of the Michigan State Medical Society and guiding spirit in the creation and promotion of the Beaumont Memorial Foundation, was chosen as its President at the second annual meeting of members held in Detroit January 30, 1958.

In his presidential address, Doctor Beck outlined the history of the Foundation, which held its first meeting in Grand Rapids on September 25, 1957, and at which the nine original trustees were elected. Doctor Beck further reported on the condition of the Beaumont Memorial on Mackinac Island and on the anticipated improvements in this permanent shrine to Doctor Beaumont. He further reported that a letter of invitation had been sent to all MSMS members on November 29, 1957, urging them to become associated as members of BMF. The response was, ten Life Members ($100 each) and over 300 sustaining members ($5.00 per annum) to date.

Other Officers Elected



Wm. M. LeFevre, M.D.

The Board of Trustees elected Wm. M. LeFevre, M.D., Muskegon, Vice President; and Wm. J. Burns, LL.B., Lansing, Secretary-Treasurer for the year 1958. The Executive Committee is composed of President Beck, Vice President LeFevre and A. H. Whittaker, M.D., Detroit.

Nine Trustees Elected

Otto O. Beck, M.D., Birmingham, J. H. Fyvie, M.D., Manistique, and G. B. Saltonstall, M.D., Charlevoix, were elected to the board of trustees of the Foundation for three-year terms each;

Luther R. Leader, M.D., Detroit; W. M. LeFevre, M.D., Muskegon; and C. E. Umphrey, M.D., Detroit, were elected for two-year terms each;

C. T. Ecklund, M.D., Pontiac; D. C. McLean, M.D., Detroit and A. H. Whittaker, M.D., Detroit, were elected to the board for one-year terms each.

Additional members of the Foundation, elected by the Board of Trustees, were Lester P. Dodd, LL.B., Detroit; W. F. Doyle, Lansing and Mackinac Island; Paul de Kruif, Ph.D., Holland, and W. Stewart Woodfill, Chicago and Mackinac Island.

Agreement with Park Commission

The Beaumont Foundation has an agreement with the Mackinac Island State Park Commission whereby the furnishings, furniture, display cases, paintings, display objects and other materials now contained in the memorial building or which may from time to time be placed therein (such as objects on loan from universities) shall be regarded as property of the Beaumont Memorial Foundation, subject to change, rearrangement, and so on.

The Mackinac Island State Park Commission shall assume the custody, protection and preservation of the personal property in the Beaumont Museum; it shall employ one or more paid assistants and do all things needful to keep the Museum in good and displayable condition.

The Beaumont Memorial Foundation and the Mackinac Island State Park Commission agreed to collaborate through appropriate committees for the preservation, maintenance, improvement and display of their respective property.

Membership Invitation

The Board of Trustees of the Beaumont Memorial Foundation wish to advise all MSMS members that they are privileged to become members of the Foundation. Invitations to others than MSMS members must be voted specifically by the BMF Trustees. An application blank is printed at the bottom of this page, for the convenience of doctors of medicine.

* * *

I hereby make application for LIFE membership () or SUSTAINING membership () in the

BEAUMONT MEMORIAL FOUNDATION

Life membership $100.00 payable but once.
Annual Sustaining membership $5.00.

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The MSMS "Deductible" Principle

By Max L. Lichter, M.D.

As a major objective, medical care insurance exists for the purpose of enabling people to obtain medical services when they are needed. No device should be employed which has the sole purpose of being a deterrent to seeking medical attention when it is necessary. It is important however, that a patient assume some degree of responsibility for his medical care beyond an insurance premium.

There are many reasons for this, for example: (1) With this responsibility, an appreciation of the value and necessity of these services is encouraged. (2) It enables provision of certain services, within acturarial limitations, at an acceptable premium cost.

Further, it is important this degree of financial responsibility have definite aggregate limitations, that their payment will not become an unreasonable burden upon the patient. For the sake of this discussion this responsibility will be referred to as a "deductible."

The foregoing is recognized in the Principles adopted by the Michigan State Medical Society House of Delegates on September 25, 1957. The pertinent paragraph follows:

"For any necessary service other than in-hospital medical care, surgical care, obstetrical care and anesthesia, the subscriber shall have at the time of utilization, a degree of financial participation in and responsibility for medical fees in addition to his premium. This shall be determined by the carrier but the responsibility of the patient shall be not less than 10 per cent or $5.00, whichever is more, but not in excess of the scheduled fee allowance. In accordance with the terms of the contract, this amount shall become the obligation of the patient to the physician at the time of service and will be subtracted by the carrier from the payment for service it shall make to the physician."

The services to which the deductible principle is applicable are called "Class II Services" and include consultation, surgical assistant, diagnostic and therapeutic radiologic procedures, and laboratory services.

To illustrate the way the "deductible" will function the $5,000 Income Level Contract will be used as the example. It should be recalled that $50 (or 1 per cent of the income level) is the limit of each patient participation in any calendar year. It should also be pointed out that the "deductible" applies to each item of Class II service. And further, the aggregate is made up of all "deductible" payments involving all Class II benefits for each individual member.

1. A patient needs a fasting blood sugar every week. Since this service costs $4.00 the patient will be responsible for this charge until the aggregate of $50 is reached. After that the Plan will reimburse or pay for the service.

2. A patient needs several laboratory tests and they each cost no more than $5.00. The patient is responsible for payment for each service, each going to make up his $50 aggregate.

3. A patient needs an upper G.I. Series costing $25.00. He will pay $5.00 and the Plan $20.00.

4. A patient needs x-ray therapy costing $175.00. He will pay 10% or $17.50 and the Plan will pay the balance.

5. Assume any combination of items in Class II during a calendar year. For example, this could comprise five laboratory procedures at $4.00 each, two laboratory procedures at $5.00 and four x-ray examinations toward each of which $5.00 is paid. This totals an aggregate of $50.00. Any other needed Class II services, then, become benefits without any "deductible" payment by the patient for the remainder of the calendar year.

The same examples can be used in the $2,500 income level where the aggregate is $25.00, and in the $7,500 income level which would have a $75.00 aggregate.

It can be seen that applying the "deductible" to each item, and limiting it to 10% of the scheduled fee or $5.00, whichever is more, works for less hardship to a patient than requiring him to pay all of an aggregate before he can benefit under his contract. It is pointed out that for items in Class II exceeding $5.00, by whatever amount, the remainder of the scheduled fee becomes a benefit. Consumer representatives have accepted this innovation as being within the financial capabilities of the members of their groups since, within the aggregate limitations, they assume responsibility for modest fee items and pay a definite amount, not all, toward a higher fee item.

The mechanics of implementing this part of our Principles are being developed by Michigan Medical Service. Details will be forthcoming when the new contracts are made available.

It is acknowledged that this is a new method applied to patient participation in the cost of these services when they are needed. There is strong feeling that "a degree of financial participation in and responsibility for medical fees" is of great importance in furnishing medical care of this nature. The effectiveness of this method will assure success in making available these important benefits. It can be achieved by understanding and co-operation.—*Detroit Medical News,* April 28, 1958.

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GP's LEAD ATTENDANCE AT 1958 MICHIGAN CLINICAL INSTITUTE

At the March, 1958, Michigan Clinical Institute, held at the Sheraton-Cadillac Hotel, Detroit, 431 general practitioners were registered. The surgeons had a total of 212, followed by the internists with 161. A surprisingly large turn-out of residents and interns chalked up a figure of 235. In all, seventeen specialties were represented. Attendance from other sections was:

Pediatrics	86
Obstetrics-Gynecology	73
Nervous & Mental Disease	32
Pathology	31
Occupational Medicine	29
Public Health	26
Ophthalmology-Otolaryngology	21
Gastroenterology-Proctology	20
Radiology	15
Dermatology-Syphilology	7
Urology	6
Anesthesiology	2

Thirty-nine physicians did not indicate a specialty on their registration cards.

159 Communities Represented

Of the 1,426 M.D.'s who attended the MCI, Detroit registered 683. Flint came in second with seventy-three, Ann Arbor had fifty, and Lansing was fourth with forty-six.

Sixty-eight M.D.'s came from out of Michigan —with thirty-four from Canada. One hundred and fifty-nine separate communities of Michigan were represented at the 1958 MCI by one or more medical men.

SOCIAL WORK PROGRESS INSTITUTE

About 600 people in the fields of social work, mental health and education attended the seventh annual Social Work Progress Institute Friday, April 11, at The University of Michigan.

The Institute is sponsored by the University of Michigan School of Social Work, its alumni, and the University of Michigan Extension Service.

Following registration at 9:30 a.m., section meetings were held on "Treatment of Emotional Problems of Adolescents," speaker Willard J. Hendrikson, M.D., chief of Adolescent Service of the Neuropsychiatric Institute; "Social Work Help to Parents of School Children," speaker Florence Poole, University of Illinois professor of social work.

Two other discussion groups were held on "Protective Social Work Services—Their Potential," speaker Russell G. Oswald, commissioner of the New York State Board of Parole; and "International Social Work Frontiers," speaker Julia Henderson, director, United Nations Bureau of Social Affairs.

At a luncheon in the Michigan Union Ballroom, where J. Milton Yinger, professor of sociology at Oberlin College, a visiting professor at the University of Michigan, spoke on "Developments in the School of Social Work."

Participants were from all over Michigan, including *Lansing, Grand Rapids, Kalamazoo, Saginaw, Muskegon, Flint, Detroit, Jackson, Battle Creek* and *Toledo,* and northern Ohio.

MSMS IS EIGHTH IN POPULATION

According to a recent survey made by Rogers, Slade and Hill, consultants on management problems, New York City, the Michigan State Medical Society is eighth in population among the medical societies of the nation. The 1957 figures are as follows:

New York	24,182
California	15,892
Pennsylvania	11,800
Iowa	10,132
Ohio	9,070
Texas	7,800
Massachusetts	6,787
Michigan	6,692

The Rogers, Slade and Hill survey indicates that 90 per cent of Michigan's Doctors of Medicine, on a voluntary basis, are members of the American Medical Association.

Michigan is tenth in amount of state society dues, according to a survey made by the Washington State Medical Association. Other state dues (including assessments) for the current year are:

Utah State Medical Association	$140.00
Nevada	$120.00
Iowa	$ 85.00
North Dakota	$ 75.00
South Dakota	$ 75.00
Wisconsin	$ 75.00
Colorado	$ 75.00
Arizona	$ 70.00
New Mexico	$ 70.00
Michigan	$ 60.00

MEDICINE'S FOURTH ESTATE

Every active physician recognizes the constantly growing importance of his county, state and national medical societies—the three great "estates" of organized medicine in America.

In the past few decades, medical practice has become ever more complex. Doctors today must deal not only with more than a score of fellow medical specialists, but with several score of "paramedical" technicians, many of whom are finding

(Continued on Page 826)

ıe effectiveness of 'DIURIL' (CHLOROTHIAZIDE) in Hypertension

as simple as 1-2-3

1 **INITIATE THERAPY WITH 'DIURIL'.** 'DIURIL' is given in a dosage range of from 250 mg. twice a day to 500 mg. three times a day.

2 **ADJUST DOSAGE OF OTHER AGENTS.** The dosage of other antihypertensive medication (reserpine, veratrum, hydralazine, etc.) is adjusted as indicated by patient response. If the patient is established on a ganglionic blocking agent (e.g., 'INVERSINE') this should be continued, but the total daily dose should be immediately reduced by as much as 25 to 50 per cent. This will reduce the serious side effects often observed with ganglionic blockade.

3 **ADJUST DOSAGE OF ALL MEDICATION.** The patient must be frequently observed and careful adjustment of all agents should be made to determine optimal maintenance dosage.

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Smooth, more trouble-free management of hypertension with 'DIURIL'

MEDICINE'S FOURTH ESTATE

(Continued from Page 822)

it difficult to adjust themselves to a "table of organization" in which the Doctor of Medicine must, by training and responsibility, be the captain of the team.

Then, too, in the areas of hospital-physician relations, of public health, of medical care prepayment, and of social security, organized medicine is required to think in new terms and to act with decision, if it is to retain the leadership which the people expect of their physicians. The demands of our time call for medical statesmanship of the highest order.

And now, medicine has added a "fourth estate," The World Medical Association, which, though it was founded only a little more than ten years ago, has already earned for itself world-wide recognition as "the international voice of organized medicine."

Our American Medical Association is one of the fifty-three national medical associations which comprise the membership of The World Medical Association. Within the United States, some 5,500 leading American physicians have formed a supporting committee, known as the United States Committee of The World Medical Association. President of the U. S. Committee is Dr. Austin Smith, Editor of *The Journal AMA*. Secretary-Treasurer is Dr. Louis H. Bauer, who has also served as Secretary General of The World Medical Association since its founding in 1947.

The purposes of the U. S. Committee are those of WMA itself: to work for the highest standards of medical care in all parts of the world; to defend and preserve the freedoms that are essential to good medical practice; to provide a forum for the solution of problems common to physicians the world over; and to promote world peace.

You have an opportunity to play your part in this vital cause by becoming a member of the U. S. Committee of WMA. The AMA House of Delegates has urged that every member of AMA join the U. S. Committee. Annual dues are $10.00, and the Committee's headquarters are at 10 Columbus Circle, New York 19, New York.

The chairman for Michigan is William A. Hyland, M.D., Grand Rapids.

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of April 15, 1958

- **Site Committee** Chairman K. H. Johnson, M.D., Lansing, reported that Registered Professional Engineer Ralph K. Seeley had found that soil conditions and utility services at the proposed site for new MSMS building (Saginaw Street—M78—and Abbott Road, East Lansing) were most satisfactory and the property appears to be very desirable both from general location and appearance. Subject to approval by Architect Yamasaki and Legal Counsel Dodd, the Executive Committee approved consumation of purchase of this site. The "Big Look" Committee was instructed to confer with the architect re the needs of the new building and to develop preliminary ideas on which final plans can be drawn.

- **Veterans Home Town Medical Care Program.**—A committee was appointed to review and re-negotiate the Veterans Administration Home Town Medical Care Fee Schedule as the current contract expires June 30, 1958. Committee: B. M. Harris, M.D., Ypsilanti; G. Thomas McKean, M.D., Detroit; D. Bruce Wiley, M.D., Utica.

- **National Science Fair.**—MSMS will co-operate with the American Medical Association and the Genesee County Medical Society at this Fair in Flint, May 7-10, by contributing one-half the cost of the souvenir programs.

- **Horace F. Bradfield, M.D.,** Detroit, was nominated to the Governor and the Michigan Secretary of State to fill a vacancy existing on the Michigan State Board of Registration in Medicine.

- **The 1958 MSMS Annual Session** will be held in Detroit, September 29-30, October 1-2-3. Chairmen and Secretaries of the Assemblies were appointed; also two Press Committees, one for the scientific and one for the House of Delegates' activities.

- **Michigan Clinical Institute of 1958.**—The audit of exhibitors—a pioneering activity in evaluation of the worth of the exhibit to the M.D.'s attending the Institute, was reported by the Executive Director who was authorized to transmit the report to the Medical Exhibitors Association. Thanks were extended to the following "auditors" of the MCI Exhibit: William Bromme, M.D., Detroit; A. B. Gwinn, M.D., Hastings; B. M. Harris, M.D. Ypsilanti; F. E. Ludwig, M.D., Port Huron; G. E. Millard, M.D., Detroit; W. C. Rundles, M.D., Flint; G. B. Saltonstall, M.D., Charlevoix, R. W. Shook, M.D., Kalamazoo; R. W. Teed, M.D., Ann Arbor and C. L. Weston M.D., Owosso.

- **The 1959 Michigan Clinical Institute.**—W. S. Jones, Sr., M.D., Menominee, was appointed Chairman of Arrangements. The Committee on Program was appointed: William S. Reveno, M.D., Detroit, Chairman; H. M. Bishop, M.D., Saginaw; R. L. Mainwaring, M.D., Dearborn; John M. Sheldon, M.D., Ann Arbor; J. M. Wellman, M.D., Lansing, and Paul de Kruif, Ph.D., Holland, as Advisor.

(Continued on Page 828)

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ADVANTAGES:

1. **Gradual but sustained reduction of blood pressure**
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Supplied: Bottles of 100 and 500 tablets.

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HIGHLIGHTS OF EXECUTIVE COMMITTEE

(Continued from Page 826)

- **The Editor's recommendation,** to run an annual feature article on a leading industrialist in the pharmaceutical field, was approved; also Dr. Haughey's recommendation on plan of developing history of Michigan Medical Service was given approval.

- **Appointments.**—D. Bruce Wiley, M.D., Chairman of The Council, appointed a Committee to Study Utilization of Vacant Tuberculosis Facilities for Chronic Diseases, with R. L. Rapport, M.D., of Flint, as Chairman; he also appointed a Committee on Vocational Rehabilitation, with F. C. Swartz, M.D., Lansing, as Chairman; Carl J. Sprunk, M.D., Dearborn, was appointed as MSMS representative to attend the AMA Civil Defense Meeting, June, 1958. Appointed to the Committee on National Defense was H. B. Latourette, M.D., of Ann Arbor.
 MSMS representatives to the Liaison Committee with Michigan Hospital Association were appointed: L. Fernald Foster, M.D., Detroit, Chairman; C. A. Payne, M.D., Grand Rapids; W. S. Reveno, M.D., Detroit; G. W. Slagle, M.D., Battle Creek, and D. Bruce Wiley, M.D., Utica; also MSMS representatives to help arrange program of medical seminar for Michigan Board of Alcoholism were appointed with Richard C. Bates, M.D., Lansing, as Chairman.

- **The request for MSMS co-sponsorship of the Annual Conference on Aging,** University of Michigan, June, 1958, was approved.

- **The final report of the Special Committee on Study of Mal-practice Insurance** (C. E. Umphrey, M.D., Detroit, Chairman) was read and referred to the Publication Committee for inclusion in THE JOURNAL.

- **Committee Reports.**—The following were given consideration: Medical Care Insurance Committee, meeting of April 12; Advisory Committee to Medical Assistants, April 13; Beaumont Memorial Foundation, meeting of Members and of Board of Trustees, January 30.

- **A vote of thanks** was extended to Michigan Medical Service which acted as host to the Executive Committee of The Council in its Detroit Headquarters on this date.

MSMS ANNUAL SESSION
Tuesday Noon through Friday Noon
September 30-October 3, 1958
Sheraton-Cadillac Hotel, Detroit

WHAT THEY SAID ABOUT THE 1958 MICHIGAN CLINICAL INSTITUTE

Cyrus C. Erickson, M.D., Memphis, Tennessee (guest speaker): "I assure you that it was indeed a pleasure and an honor to participate and appear on your 1958 Michigan Clinical Institute Program. I was impressed by the thoughtful attention for pre-meeting arrangements for the speakers, as well as the program arrangements, and would add my appreciation and praise, as a visiting speaker, for such excellent arrangements. I certainly wish to thank you and indicate my appreciation of the thoughtful consideration and courtesies that you, as well as my ubiquitious host, Dr. O. A. Brines, extended to me on my visit with you in Detroit."

Francis C. Brown, Ph.D., Bloomfield, New Jersey (guest speaker): "It was a pleasure for me to come to Detroit and to meet and to speak to so many of your members. I want to express my sincere thanks to you, Dr. Umphrey, and to Secretary Foster for all your hospitality at the Michigan Clinical Institute. I have written to my ubiquitious host, Dr. Grover C. Penberthy, thanking him for all his kindnesses.

Henry T. Bahnson, M.D., Baltimore, Maryland (guest speaker): "It was a pleasure to join you at the Michigan Clinical Institute, and I greatly appreciated the opportunity to speak. My many thanks for the invitation."

Clyde L. Randall, M.D., Buffalo, N. Y. (guest speaker): "You and all officers of the Michigan Clinical Institute are to be congratulated on the continuing success of the Institute. Thank you for the invitation to participate."

C. E. Umphrey, M.D., Detroit, MCI General Chairman of Arrangements: "My thanks to all who helped make so eminently successful the 1958 Michigan Clinical Institute. Many hands—especially experienced hands—make easy a great task. My congratulations on a fine performance. The MCI this year was the best!"

F. E. Ludwig, M.D., Port Huron, Michigan: "I enjoyed the 1958 Michigan Clinical Institute, as you well know, and also the television program. The reaction to the latter throughout the state has been tremendous. It was probably one of the best things that we have ever done, particularly from a public relations standpoint."

Anamae Calhoun, Audio Digest Foundation, Glendale, California (Exhibitor): "Our comments regarding your smooth organization in the two Michigan meetings that you conduct go especially for the 1958 Michigan Clinical Institute. Thank you for all of your help in seeing that we were well cared for, as were all the exhibitors."

Harvey C. Hallum, Professional Relations Director of Mead Johnson & Company (Speaker at Residents, Interns Conference): "Certainly, you are to be complimented for arranging such an interesting program. Those present truly derived a great deal of benefit of the subject covered. We would indeed be honored to have the opportunity and pleasure to participate in any and all of your future programs."



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DIARRHEAS

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Diarrheas due to neomycin-susceptible pathogens are effectively treated by the highly efficient intestinal antibiotic in DONNAGEL WITH NEOMYCIN, whose other ingredients serve to control toxic, irritative and emotional causes. *Result:* Early re-establishment of normal bowel function.

SUPPLY: Bottles of 6 fl. oz.

ALSO AVAILABLE: DONNAGEL, the original formula, for use when the antibiotic component is not indicated. Bottles of 6 fl. oz.

Each 30 cc. (1 fl. oz.) of the comprehensive formula of DONNAGEL WITH NEOMYCIN contains:

Neomycin sulfate (Equal to neomycin base, 210 mg.)	300 mg.
Kaolin (90 gr.)	6.0 Gm.
Pectin (2 gr.)	142.8 mg.
Dihydroxyaluminum aminoacetate	0.25 Gm.
Hyoscyamine sulfate	0.1037 mg.
Atropine sulfate	0.0194 mg.
Hyoscine hydrobromide	0.0065 mg.
Phenobarbital (¼ gr.)	16.2 mg.

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Cancer Comment

THE PROFESSION'S OBLIGATION TO THE CANCER PATIENT

In the intensity of study and treatment of today, oftentimes the disease is dwelt upon instead of the patient on the whole; nowhere is this so emphasized than in the field of cancer. True it is, that much time and effort should be and is devoted to the type, stage of development, accessability, and receptibility to treatment; but while so doing, the feelings of the patient must at all times be kept in mind.

The patient's life hangs in the balance; consequently, he or she is the one directly involved. We the profession, including physicians, nurses, and laboratory and treatment technicians are in the area of help. Therefore, it is the manner of our approach and consideration that is of great aid to the patient's state of mind in relieving the anxiety and stimulating the hope that no matter what the outcome, every avenue of help has been explored and offered.

By so gaining the confidence of the patient, the way is greatly smoothed for all. Further, this eliminates the doubting thoughts that enter the mind of the ill patient, especially when in so many cases the knowledge of the presence of cancer is like a bomb to both patient and family. When it hits, it is time for diligent and thoughtful conferences between the medical advisors and the family as to the best method of approach in making this presence known to the patient, and the line of treatment to be employed. At this moment, the confidence of the involved ones can be made or destroyed by too much of a standardization approach rather than an individualizing of the case.

For the early case surgery, x-ray, or chemotherapy, depending on the diagnosis and the application of the best one of these in light of our knowledge gained through experience and research, will no doubt result in a cure or marked prolongation of expectancy. But it is in the advanced or terminal case where the most judicious procedure of all is indicated. Here an approach that is honest, while not brutal, with understanding and kindness is of the greatest help to the afflicted one. An expression of or promise that every known resource available at present or in the future will be employed with not only a promise, but actually relieving intractable pain—relief of depressing or nauseating odors through surgery, x-ray, or chemo-therapy even though there is very little hope of permanency—help in preventing infection, dehydration, and anemia by the usual methods with employment of nerve severing measures are all parts of our armamentarium. Also, knowledge that consultation with conferences or discussion in the cancer-tumor clinics adds greatly to the patient's and family's piece of mind.

Now, to what does this all lead? First, the patient is helped immeasurably by the knowledge and confidence that no matter the outcome, everything possible is being offered for his or her relief and they are being given helping hands in their great trial; secondly, there is no need for the entering of the unscrupulous Charlatan who so glowingly and glibly offers aid for a price—let's not waste time on him, even though 5 per cent of the medical cost today goes to quacks, but rather turn to our conscience to ascertain whether we have done all possible to aid both mentally and physically the stricken ones, and thus add roses to the tomb of Hypocrates to whom we so solemnly swore to at all times approach our work with the highest integrity.

There are only two results in cancer: cure or demise. It is our duty to devote all our efforts to each; even though it is disappointing and at times heart rendering to us, how much greater is the mental anguish to those that have it and are on the losing path. Remember the Biblical passages:

". . . Inasmuch as ye have done it unto the least of these . . ."*

". . . Whatsoever ye would that men should do to you, do ye even so to them . . ."†.

Do not leave the patient or his family stranded with a shrug of the shoulders, but rather stick it out to the end. Who knows, perhaps you or yours may ultimately be one of the quarter of a million who succumb each year from proven cancer. Improvement in the number of cured patients in nearly all phases of cancer are encouraging. Also, greater relief to the suffering of the terminal patients is heartening, but above all we must give sympathy and kindness.

William A. Hyland, M.D.
Member, Cancer Co-ordinating Committee
Michigan State Medical Society

If pancreatic cancer is suspected, it may be wise to find out how well the liver and gall bladder are functioning.

* * *

Many cancers reported as *of* the liver really are metastases *in* the liver from a primary growth in some other organ.

* * *

Vital statistics and the conclusions drawn from them can be no more accurate than are the basic data on which they are built.

*Matthew 25:40.
†Matthew 7:12.

NOW...A NEW TREATMENT

'CARDILATE'*

for THE PROPHYLAXIS OF ANGINA PECTORIS

'Cardilate' tablets  shaped for easy retention in the buccal pouch

"... the degree of increase in exercise tolerance which sublingual erythrol tetranitrate permits, approximates that of nitroglycerin, amyl nitrite and octyl nitrite more closely than does any other of the approximately 100 preparations tested to date in this laboratory."

"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris. Circulation (Jan.) 1958.

*'Cardilate' brand Erythrol Tetranitrate SUBLINGUAL TABLETS, 15 mg scored



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PR REPORT

EDUCATIONAL SEMINAR

The Educational Seminar, sponsored by the MSMAS and MSMS, and held in Detroit, March 19, 1958, had as its theme "Two Sides of the Desk." This topic comes under the category of "The Humanities and Sociological-Psychological Sciences"; one of the three major topic areas currently being offered to MSMAS members by the University of Michigan Extension Service. The other two topics are "Medical Office Management" and "Office Nursing."



J. W. Rice, M.D., *(right)* of Jackson, Chairman of the MSMS Advisory Committee to the Michigan State Medical Assistants Society, discusses the Medical Assistants' "Educational Seminar" program with University of Michigan instructors *(left to right)* Alfred W. Storey, Ph.D., Richard L. Cutler, Ph.D., and John M. Sheldon, M.D.

Each year, during the MCI, the Michigan State Medical Assistants Society plans to hold a one-day, post-education seminar, rotating subject matter in the three areas mentioned above. In this way, medical assistants will have an opportunity to keep abreast of new developments and techniques in their occupation.

SPEAKERS BUREAU

Doctors in the Bay-Arenac-Iosco County Medical Society have formed a Speakers Bureau under the chairmanship of W. G. Gamble, M.D., Bay City.

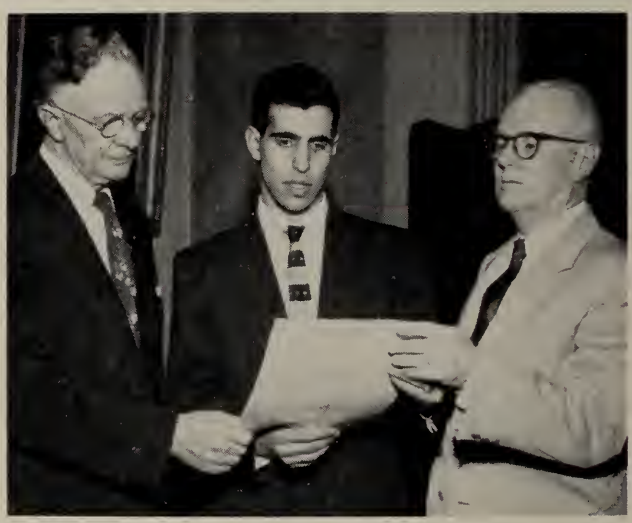
In his president's message in the March *Bulletin*, O. F. Jens, M.D., reports:

"The response to our call for members of the Medical Society to join the Speakers Bureau has been very gratifying. A roster of very capable speakers has been listed, and the number or organizations who have inquired about and asked for speakers on medical topics has been very large. Much credit must be given to Doctor Gamble's enthusiasm and organizing work."

SCIENCE AWARD WINNERS

On May 1, Oakland, Macomb and Wayne County Medical Societies joined with the Metropolitan Detroit Science Fair (Michigan State Fair Grounds, May 1-4, 1958), to present "Certificates of Merit" to the twenty top junior and high school students who entered exhibits related to the field of medicine. The awards were presented at a special luncheon after which the twenty awardees were given a conducted tour through Wayne State University College of Medicine.

The twenty awardees were selected from approximately 1,250 student exhibitors. The judging took place on April 30 and was done by David Sugar, M.D., James Fryfogle, M.D., and Joseph Worzniak, M.D., of Wayne County; Oscar Stryker, M.D. and Russell F. Salot, M.D., of Macomb County; and J. D. Monroe, M.D., and J. J. Marra, M.D., of Oakland County Medical Society.



Drs. C. I. Owen *(left)*, and L. J. Bailey *(right)*, President and Immediate Past President of Wayne County Medical Society, inspect the "Certificate of Merit" presented to Robert Seguin *(center)*, Grand Award winner of the Metropolitan Detroit Science Fair.

Special recognition was given to Robert Seguin who was one of two Grand Award winners of the Metropolitan Detroit Science Fair. His exhibit was titled, "Separation of the Plasma Proteins Using Chromatographic and Electrophoretic Methods."

The two Grand Award winners exhibited at the National Science Fair in Flint, May 7-10. The AMA selected at the Flint fair the two top exhibitors in fields related to Medicine, to exhibit at the AMA Convention in San Francisco this month.

(Turn to Page 834)

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GEROT PHARMACEUTIKA, owners of United States Letters Patent #2-776-973 issued January 1957 to Gerhard Gergely of Vienna, Austria, have licensed MEYER AND COMPANY of Detroit, Michigan, to synthesize and market 3, 7-dimethyl-xanthine double salt in the United States of America.

3, 7-dimethyl-xanthine double salt of oleic acid and magnesium, a stable compound marketed in Austria since 1950 under the name "Perskleran" and used in the treatment of ARTERIOSCLEROSIS is being marketed by MEYER AND COMPANY under the trade name of "Athemol."

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PR BEGINS IN THE DOCTOR'S OFFICE

Fifth and final installment of a paper by
R. Wallace Teed, M.D., Ann Arbor
Chairman, MSMS Public Relations Committee

. . . And Last, Put the Patient First

Follow-up is also important in maintaining good patient relations. A definite date to return should be given, and an appointment made by the secretary. Some patients do not follow this advice, but that should not prevent the physician from recognizing that most people want the doctor to follow the course of their illness. If no follow-up is needed, a definite statement to that effect should be made.

It will be noted that one train of thought pervades this article: put the patient first. The demands of others, fatigue, boredom, or anything else should not be allowed to relegate him to any other level of importance. If for any reason the physician cannot give the patient adequate attention, he should refer him to another man.

One frequently hears the complaint that a certain doctor's fees were too high. In checking some of these, I have found that it was actually not the fee that was excessive, but that the patient received too little. The history was sketchy; the examination was skimpy or the doctor told him nothing. Consequently he felt short-changed although in fact the treatment was quite correct. Everyone understands money, and it is easier to talk about that than about other basic things which are more difficult to explain. I am sure that if we give our patients what they want, most of them will not complain.

COUNCIL FOR HEALTH CARE OF THE AGED IS FORMED

The foundation was laid in April by some of the most important organizations in the health field to solve the problem of the health care of the aged.

For this purpose the American Dental Association, the American Hospital Association, the American Medical Association, and the American Nursing Home Association announced the establishment of the Joint Council to Improve the Health Care of the Aged.

Objectives of the Council, the formation of which has been under consideration for some time by the sponsoring groups, were announced as:

"(1) to identify and analyze the health needs of the aged; (2) to appraise available health resources for the aged; and (3) to develop programs to foster the best possible health care for the aged regardless of their economic status."

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Eye Removal and a Modified Gifford Evisceration Operation

By John W. Smillie, M.D.
Ann Arbor, Michigan

MARKED ADVANCES have been made in the field of eye removal in the last century. Yet opinions still differ as to when to remove an eye, how to remove it, and what sort of implant to use. As is usual in medicine, these differences of opinion indicate that, as yet, no single method of removal, nor any one implant is entirely satisfactory.

For most of us, an enucleation or evisceration was the first important eye operation. During the past three years, several young veterans whose painful eyes dated from injury in World War II and Korea, have presented themselves. Because of their long life expectancy, considerable thought has been given as to how to obtain as good a cosmetic result as possible.

Let us then briefly examine the development of our present methods. The first formally described procedure was extirpation, or abcission, introduced by Bartisch in the sixteenth century. His operation consisted of needling threads through the eye for traction and then passing a sharp-edged spoon or knife behind the eye and thus grossly severing all of its attachments. This was so brutal that it was usually reserved for fungating cancerous eyes. For eyes that were simply very painful, an incision and drainage was probably done.

Simple enucleation was introduced independently in 1841 by Farrall and Bonnet. As might be expected, it was made possible by the discovery of the anatomical detail of Tenon's capsule a few years prior. General anesthesia was introduced about this time, however, and so there was a lag of fifteen years before simple enucleation displaced the barbaric procedure of extirpation.

Simple evisceration was introduced thirty-one years later by Noyes in 1872. In 1884, A. Graeffe urged simple evisceration in panophthalmitis because of the danger of meningitis. He had the cases, or should I say, autopsies, to illustrate his point, too, and we today here at Michigan continue to follow his principle.

In 1885, the Englishman P. H. Mules introduced evisceration with the placing of "artificial vitreous" into the scleral cavity. He removed the cornea, and a hollow glass ball implant was his "artificial vitreous." Likewise, two years later Frost and Lang independently proved that a glass sphere could be buried in Tenon's capsule after enucleation. A. E. Sherman calls this immediate replacement of lost orbital tissue the greatest single contribution to the prevention of socket retraction following removal of the eye.

In 1900, H. Gifford of Omaha first introduced an evisceration that utilized cornea as well as sclera. He simply made a vertical incision through the center of the cornea and continued it above and below 2 mm. into sclera. In three of his fourteen cases he successfully buried implants.

Fox, in 1902, introduced the hollow gold ball implant which is still in use today. Fox is also

From the Department of Ophthalmology, University of Michigan Medical School and the Ann Arbor Veterans Administration Hospital.

Read at the Annual Ophthalmology Conference of the Horace H. Rackam School of Graduate Studies, Ann Arbor, April 22, 1957.

credited with introducing the conformer to the postoperative management of eye removal. Verhoeff, about the time of World War I, demonstrated and urged the complete closure of Tenon's capsule as an absolute necessity in preventing extrusions. In 1930, O'Connor first advocated the overlapping of the outer fibrous coat of the eye in closing an evisceration. He also preserved cornea, and his incision was a cruciate one centered in the cornea. After removing the contents of the eye, he inserted an implant and closed by overlapping the four sectors and suturing them together with interrupted mattress sutures.

The Frenchman, Roulard, about 1916 suggested an evisceration with preservation intact of the whole cornea by making a scleral incision. It was, however, left to Dr. Frank Burch of Minnesota in 1940 to demonstrate and popularize a similar evisceration operation that today bears his name. His incision was made just anterior to the superior rectus muscle, parallel to the limbus, and extended two-fifths of the way around the globe. After removing the contents of the eye and wiping off corneal endothelium, he inserted a gold ball, usually an 18 mm. one. He closed with five or six 4-0 white silk, edge-to-edge mattress sutures. This operation, according to Wiener, Scheie, and other authorities gives the best cosmetic results in eye removal to date. Occasionally in the Burch evisceration, however, the cornea will slough out at the limbus where the outer fibrous coat of the eye is so very thin. W. L. Hughes reported an example of this in 1948, and Col. King told me in Washington, D. C., last month that he had seen the same thing happen in Korea.

Plastic material for implantation, such as lucite, methyl methacralate, and polyethylene have become popular since Berens introduced lucite in 1940. Vitallium and tantalum have also become popular for implantation since World War II, and the hollow glass ball has been largely given up.

In 1945, Ruedemann introduced the revolutionary concept of a semiburied artificial eye in enucleation. He desired and obtained excellent conjugate movement of the prosthetic with the normal eye. This began the era of exposed implants, Cutler introducing the first integrated implant in 1947. The early results were most encouraging, but about 1951 it was becoming generally recognized that too much chronic infection resulted from the non-closed body cavity and that the late extrusion rate was to be better than 30 per cent. Progress, however, is never made without the judicious application of new ideas.

The term "buried motility implants" is used to describe those implants with odd shapes and sizes which have as their principle, transmission of motion to the prosthetic without direct attachment. Cutler's basket implant of 1946 was the first effective one of this type. There are many, many others today—the Allen implant and the Troutman magnetic implant being among the better known examples.

Most will agree that we should use a buried implant whenever possible. However, when eye tumors have entered the orbital tissue or if panophthalmitis is present, an implant is contraindicated. But should one use a sphere implant or a motility implant?

At a symposium on orbital implants after enucleation at the annual meeting of the American Academy of Ophthalmology and Otolaryngology in 1951, Troutman reported on the end results of implant surgery. The 1,509 cases analyzed were obtained from a questionnaire sent to all members of the Academy. Extrusion rates were 28 per cent for exposed implants, 10 per cent for magnetic implants, 9 per cent for motility implants and only 4 per cent for simple sphere implants. As to absence of unusual discharge, there was none in only 32 per cent of the semiburied (exposed) implants, none in 47 per cent of the magnetic implants and none in 53 per cent of the motility implants. In sharp contrast, 79 per cent of the simple sphere implants had no unusual discharge. Granulation tissue occurred in about 8 per cent of the exposed and magnetic implants, in 4 per cent of the motility implants, but was present in only 1 per cent of the simple sphere implants.

Why do the simple sphere implants have the lowest rate of extrusions and other compilations? Some think that it is due to the fact that the prosthesis rubs unevenly on the irregular surface of the motility implant stump and thus more easily erodes through. Also, I seriously suspect that the motility implants, particularly of the tunnel type, cause a greater disurbance in the normal anatomy of the orbit during their insertion, especially of Tenon's capsule. Remember, in nature the extraocular muscles pierce Tenon's capsule just before they attach to the sclera. Dr. Fralick uses a simple

sphere implant of lucite or vitallium. In dissecting Tenon's capsule from the sclera he severs the muscle so carefully that it remains in place right there where it pierces the capsule. He doesn't tag each rectus muscle. He closes Tenon's capsule with a 4-0 catgut purse string suture, and often makes no particular effort to approximate opposing rectus tendons. I usually approximate opposing rectus muscles and like a few interrupted catgut mattress sutures in addition to the purse string in closing Tenon's capsule, but this does leave more suture material to be resorbed. Opinions differ in our own department as to what type of buried implant to use. Dr. Falls is currently using the Allen implant and Dr. Henderson uses a polyethylene sphere entirely covered with tantalum mesh. (These last may be obtained in sizes 10 to 18 mm. from the Fritz Jardon Laboratories in Detroit). I prefer a Doherty vitallium sphere or Berens lucite sphere, and these simple spheres are also used by our resident staff.

We all agree that a blind, painful eye should be removed. When else to remove an eye will continue, naturally, to remain a function of the physician's own indivdual judgment. The two teaching institutions with which I have been associated the last seven years, have trended more and more toward trying to save a badly injured eye wherever there exists the slightest hope of salvaging any vision. It is generally recognized that too many eyes were being removed after injury thirty years ago, chiefly because of an overweening fear of sympathetic ophthalmia. Eye instruments and suture materials have steadily improved and today we have the antibiotics and chemotherapeutics, as well as the steroids, to aid us. It is surprising how often one gets light and motion or finger-counting vision in a patient, the saving of whose vision was thought to be a heroic but lost cause.

During the two-week "safe" period after a perforating injury of the globe, I still like to give a course of intravenous typhoid therapy. This not only helps the immediate traumatic iridocyclitis, but also is believed to decrease the likelihood of sympathetic ophthalmia, and its severity should it appear. To help prevent infection I give achromycin or chloromycetin systematically and perhaps gantrasin also.

If the injured eye must be removed, consideration should be given to evisceration with implant as the method of choice unless the eye has been too badly damaged. A majority of authorities believe that evisceration with implant gives the best cosmetic results, followed in order by enucleation with implant, simple visceration, and simple enucleation last. In evisceration all six muscles remain physiologically attached and the posterior orbit is not entered. Local anaesthesia is usually satisfactory.

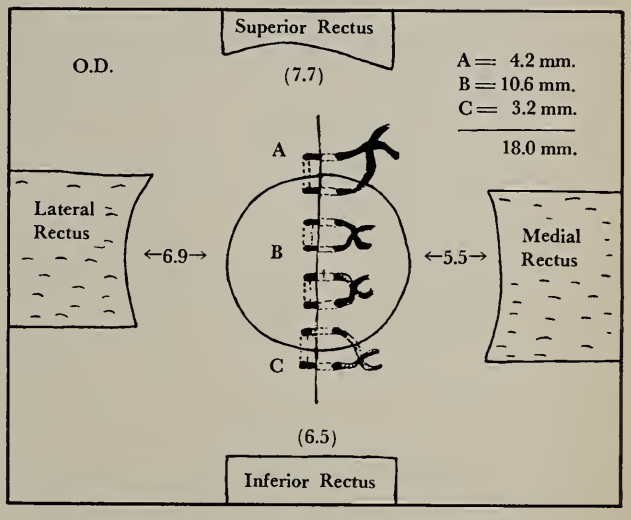


Fig. 1. Evisceration incision (Smillie).

Mr. Frederick A. Waara is in charge of our University Hospital Lens Dispensary and does the contact lens and prosthetic work of the Ann Arbor Veterans Administration Hospital. One day in 1954, he mentioned that the eyes he really enjoyed making prosthetics for (because they had the best results) were the potoperative eviscerations with implants; the larger the implant the better. Beginning in April of 1955, we began doing eviscerations by making a vertical incision in cornea and extending it into sclera above and below (Fig. 1).

Cornea was wiped free of epithelium and endothelium with 1/2000 bichloride of mercury solution or 70 per cent ethyl alcohol, or both. After carefully removing all the contents of the eye, including every bit of choroid, an 18 mm. vitallium ball was easily inserted. The incision was overlapped and closed with two parallel vertical rows of catgut mattress sutures. Four interrupted 4-0 chromic catgut mattress sutures were used for the inside row as illustrated in Figure 1. The parallel outside row of 5-0 mild chromic interrupted catgut mattress sutures are not illustrated. They were placed only after the four inside su-

tures had been pulled up all at one time and tied. By pulling them all up together, we could ascertain that our closure was not too taut over the implant. The conjunctiva was closed last with a continuous 6-0 mild chromic catgut suture horizontally.

Some ophthalmologists reserve eviscerations for panophthalmitis, only. But generally in an enucleation one can get in safely only an 18 mm. implant. We feel strongly that you should never try to put in a sphere larger than 20 mm. after an enucleation and Dr. J. S. Guyton preferred a 14 or 16 mm. implant.

We lose from 7.25 to 8 cc. of orbital tissue in doing an enucleation. An 18 mm. ball replaces 2.3 cc. of this and the prosthesis takes up 2 to 3 cc., or about five-sevenths to five-eights of the orbital tissue removed is replaced. An enucleation with a 16 mm. sphere implant has about one-half of the orbital tissue replaced, and a 14 mm. ball implant allows only three-eights of the removed tissue to be replaced. An 18 mm. sphere implant in an evisceration allows just the right amount of space for the prosthesis. If you remove cornea, however, you can't bury anything larger than a 16 mm. ball and often only a 14 mm. one. Remember, you can't close these openings under tension. In two of our eleven cases, we inserted 20 mm. vitallium spheres and overlapped the closure as outlined above. The stumps had remarkably good motion, but not enough room remained for an entirely natural looking prosthesis. To have the cornea, iris and anterior chamber appear normal, the prosthesis must be about 4 mm. thick at the center.

The complications following enucleation are only too familiar to us. The retracted socket and the sulcus of the upper lid are most deforming. Migration of the implant can occur, extrusions are more frequent, and loss of the lower fornix is only too common. The stump motion is poorer than after evisceration, and there is more discharge behind the prosthesis. And, as already mentioned, one simply cannot replace all the orbital tissue removed, as one can with an evisceration with implant.

The complication of evisceration that scores so heavily against it is its immediate postoperative reaction. Lang cited this as his chief reason for introducing enucleation with implant. Pfluger, speaking of the Mules operation at the Thirteenth International Medical Congress at Paris in 1900, stated that the "reaction postoperatoire encore plus forte." In my experience this is true in practically all cases of evisceration with implant. The swelling begins about the second postoperative day, and chemotic conjunctiva begins to protrude through the palpebral fissure on the third or fourth day. The chemosis gets considerably worse before it begins to get better about the tenth day, but all of our cases cleared without event with no other treatment than warm moist compresses and protection with eye pads covered with petrolatum.

The patient is usually fairly comfortable, but the appearance of the chemosis is hard on the surgeon until he's done a few. Especially is this true when it's his first important case, as it often is. The post-operative reaction of evisceration with implant is about the same in my experience whether cornea is retained or removed. I sincerely feel that the better cosmetic results of evisceration with implant make it the operation of choice when possible to do it.

Most of the eleven patients on whom we have used this modified Gifford method were injury cases. One was for absolute glaucoma and another for severe diabetic retinopathy. Undoubtedly there is a very slight chance of sympathetic ophthalmia developing after evisceration, although some authors (notably Elschnig) have tried to deny this. We may be able to treat sympathetic ophthalmia more effectively since the advent of the steroids. If intraocular tumor is present, the eye should be enucleated. Scheie has pointed out that when an evisceration is elected and suspicious tissue encountered, it may be sent for frozen section. This happened to me one day, and I enucleated the eye when the frozen section indicated malignancy. The permanent sections, however, showed no malignancy.

We have performed eleven eviscerations with implant by the modified Gifford method described above. All but one incision was a vertical one, though it may be made in any meridian.

The cases have been followed from four months to two years, for an average follow-up of eleven months. The one important complication was in a case where the patient had a cataract extraction attempted by "Dr. Elsewhere." This had resulted in a posteriorly dislocated lens, extensive epithelial downgrowth, and a hard, painful eye. Five weeks after our surgery, a tiny speck of vitallium was seen in the center of the incision. Three weeks

later we took out the 18 mm. vitallium ball, removed the epithelialized lining of the sclera, trimmed the edges of our incision, and buried a 12 mm. vitallium ball. The latter has remained in place nineteen months now, and a good cosmetic result obtained.

Right then I was ready to forget the whole approach. However, Dr. F. B. Fralick kindly continued to encourage me, and further consented to having clinic eviscerations at the University Hospital done by the same method. The series is not a large one, nor the follow-up long. Nonetheless, the procedure is but a composite of the established and recognized work of Gifford, O'Connor, and Burch. The one thing that may be new is the overlapped closure of the straight-edged incision. A minor complication has been the retraction of closed conjunctiva from over cornea in a few cases, but the overlapped incision has healed well notwithstanding.

These eviscerations with an 18 mm. implant to date have not had the ugly folds in the upper lids, nor has there been any socket retraction. The stumps all move nearly as well as the eye did before surgery. The prosthesis, however, is limited to 20-50 per cent of normal range. Particularly is this true of lateral gaze. But remember, 85 per cent of our eye motions are within 15 degrees of the primary position of gaze anyway. Enopthalmos has not appeared and the palpebral fissures match those of the normal eye well. In addition to being able to replace more of the removed orbital tissue, I feel that the overlapped closure is more likely to heal firmly than is the edge-to-edge closure of the Mules and the Burch eviscerations.

Dr. Smillie showed a fourteen-minute colored movie of the modified Gifford evisceration with implant and presented four patients who had had one eye removed by this method.

Summary

1. The development of our modern methods of eye removal has been selectively reviewed.

2. Indications for eye removal and selection of method of removal have been briefly discussed.

3. Certain techniques of enucleation and evisceration have been emphasized, and a modified Gifford evisceration with implant presented.

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326 North Ingalls Street.

NEW REPORT ON INDIGENT CARE

A new report titled "Medical Care for the Indigent in 1957" has been prepared by the Committee on Indigent Care of the AMA's Council on Medical Service. This report deals with some of the specific problems that states have encountered under current laws. Two previous reports in the series have dealt with the development of Public Assistance medical care and the changes made by 1956 and 1957 amendments to the program.

Effective July 1, 1957, new federal matching funds were authorized to reimburse the states for part of the cost of providing medical services to recipients of old age, blind, and permanent and total disability assistance, and of aid to dependent children. However, these additional funds could be applied only to payments made directly to the providers of medical services—physicians, hospitals, pharmacists, et cetera. States applying for these funds could receive federal aid, outside the limits set by this new formula, only for payments made directly to assistance recipients.

In a number of states which had already provided comprehensive medical care for Public Assistance recipients, this new formula required considerable reorganization of the programs if maximum federal aid was to be achieved. The Committee's new report examines in detail the problems raised for these states and the federal policies affecting methods of paying for medical services.

The first two reports now are available in reprint form, and the new report will be available shortly from the Council on Medical Service.

Acute Otitis Media in Children

By Christian Helmus, M.D.
Grand Rapids, Michigan

THE MANAGEMENT of otitis media is a modern therapeutic triumph. Otitis media responds to antibiotics so frequently that there is a tendency to minimize its seriousness. Although not as frequent as formerly, complications of acute middle ear infections still occur. Moreover, there is an alarming incidence of hearing impairment in school children. It is generally agreed by otologists that most of these complications are attributable to the improper treatment of children with otitis media.

An understanding of the principles of acute suppurative otitis media is basic to its treatment. It is the intention of this paper to review some of these principles and to stress the importance of myringotomy in the treatment.

Symptoms

The predominant symptoms of acute otitis media are otalgia and fever. There is usually an associated upper respiratory tract infection. In infants, there are frequently gastrointestinal disturbances and irritability. Crying may be aggravated by nursing since the sucking changes the pressure within the middle ear.

Unfortunately, in an occasional patient the symptoms of otitis media are not always so characteristic. The systemic symptoms may be so severe that the examiner does not suspect otitis media. There may be convulsions, vomiting, diarrhea, or acute respiratory distress. To illustrate, in 1956, Hara[2] reported sixteen deaths in children under the age of two years from otogenic intracranial complications. In each instance, the symptoms were so severe that otitis media was not suspected or it was diagnosed too late for effective therapy.

On the other hand, patients are frequently seen with definite physical findings of otitis media but with minimal symptoms. Many have been treated with antibiotics for several weeks, yet their symptoms of anorexia, malaise, and lassitude persist. Otologic examination may show a bulging, thick, greyish tympanic membrane. Following myringotomy and aspiration of the exudate, immediate improvement occurs. Because of the varying symptoms of otitis media, the drumheads of every patient should be examined.

Etiology

With rare exception, otitis media is caused by bacterial contamination through the Eustachian tube. One factor which makes otitis media more prevalent in children is that the Eustachian tube is wider, shorter, and straighter than it is in the adult. Horeover, the masses of adenoid tissue which lie in close approximation to the tubal orifices are frequently infected. When an infection in the upper respiratory passages occur, bacterial contamination of the middle ear results due either to an ascending infection through the tube or the tubal lymphatics.

Occasionally, a suppurative otitis media is preceded by a serous otitis media. Adenoid hypertrophy (or edema secondary to nasopharyngitis) causes tubal obstruction. Because of improper ventilation, the air in the middle ear is absorbed creating a negative pressure. Because of the partial vacuum developed, the drumhead retracts. If the negative pressure persists, a serous transudate from the middle ear mucosa will form in the middle ear. Acute serous otitis media then develops. If bacterial contamination (through the tube or tubal lymphatics) of this culture medium occurs, the serous process is converted to a suppurative one.

The infecting organism varies with the age of the patient. Nielsen[8] cultured the exudate from 811 acutely infected middle ears. A table from his report is reproduced here.

	0-1 yrs. (171 cases)	1-4 yrs. (435 cases)	over 5 yrs. (205 cases)
Beta hemolytic streptococci	6%	25%	46%
Pneumococci	59%	43%	47%
H. influenzae	19%	22%	1%
Other or Sterile	16%	10%	6%

He emphasizes that nose and throat cultures are of little benefit in determining the bacterial etiology of otitis media. Lahikainen[4] made 734 similar

Dr. Helmus is Resident Otolaryngology, University Hospital, Ohio State University, Columbus, Ohio.

cultures from all age groups and reported the causative organisms to be 39 per cent pneumococci, 28 per cent streptococci, and 15 per cent Hemophilus influenzae, respectively. Eighteen per cent of the cultures were sterile.

It is important to note the high incidence of pneumococci in patients of all age groups and of H. influenzae in the very young patients. Unless blood or chocolate agar media are inoculated, H. influenzae is rarely isolated.

The high incidence of pneumococcal infections is especially significant. This organism characteristically produces great destruction of the middle ear mucosa and ossicles with little change in the drumhead. Most of the intracranial complications of otitis media are caused by the pneumococcus.

It is also interesting to note the high incidence of sterile cultures. Prolonged antibiotic treatment often results in a sterilization of this exudate. It is readily apparent that persistence of this sterile exudate must interfere with normal ossicular motion and thereby impede hearing.

The staphylococci, proteus, pseudomonas, and monilia organisms are usually contaminants or secondary invaders.

The Pathology

In otitis media there is first congestion and increased vascularization of the drumhead. As the middle ear begins to fill with the products of infection the drum begins to bulge. Normal landmarks are obscured. Unless the exudate drains through the Eustachian tube, spontaneous perforation of the tympanic membrane may occur or a myringotomy may have to be done.

Among the products of infection, fibrin and fibroblasts are included. If the exudate persists, fibroblastic activity may produce adhesions in the middle ear. A conduction type deafness results from this adhesive process.

Diagnosis

The diagnosis of otitis media can be made only by careful examination of the ear. Inspection of the tympanic membrane is frequently difficult, especially in an infant. Before adequate inspection is possible, the external canal must be cleaned. The external canal and drum are then carefully studied.

It is worthwhile to emphasize the anatomical differences between the ear of the infant and the older child or adult. First, the osseous portion of the external canal is not yet present in the infant. Manipulation of the auricle in the infant with acute otitis media transmits a painful impulse to the drumhead. The sharp cry so produced usually indicates an otitis media. In the older child or adult however, pain produced by movement of the auricle is diagnostic of external otitis. Second, the infantile drumhead is relatively thicker and so pathologic changes make their appearances more slowly. This, along with the fact that pneumococcus is frequently the etiologic agent, explains why an infant can be so ill with only minimal ear findings. Third, the tympanic membrane in the infant is more obliquely placed in relation to the floor of the external canal. This brings the superior quadrants closer to the observer. Consequently, there is sometimes an illusion of a bulging drumhead even in a normal ear.

There are two simple, but often neglected, diagnostic aids. First, is the pneumatic otoscope. Most diagnostic otoscopes have a stem on the head to which an aspirating bulb can be attached. With a tight fitting speculum, the tympanic membrane will normally move when the bulb is compressed and released. In a suppurative otitis media, the mobility of the tympanic membrane is sluggish or absent. Pus cannot be visualized with the pneumatic otoscope because the drumhead becomes opaque in the presence of a suppurative process. However, using this technique in a serous otitis media, the fluid will be visibly dispersed.

Second, is the testing of hearing. Since otitis media is an infection of the hearing apparatus, the extent of the hearing impairment should be known. Whispering into one ear while occluding the other gives a quick and grossly reliable check even in young children. One should learn to calibrate his own whisper for intensity. Tuning forks, using the Weber and Rinne tests, may be used for confirmation.

Mastoiditis is present in virtually every patient with suppurative otitis media. The mastoid air cells, antrum, and middle ear are in direct continuity with an uninterrupted mucosal lining. Therefore, the mucosa of the mastoid air cells is always involved to a certain extent. This mastoiditis is usually not detectable on a clinical basis. When the course of otitis media is protracted, or when postauricular swelling or tenderness develops, roentgenograms of the mastoid should be obtained.

Treatment

The treatment of acute suppurative otitis media may be either surgical or medical. Most patients with otitis media do not need surgical treatment. Yet, as Goodale[1] has emphasized, each case should be considered as a potential surgical problem.

Use of Antibiotics

The antibiotics have been a great contribution to the treatment of otitis media. Therapeutic doses usually relieve the pain and fever in twenty-four to seventy-two hours. However, this is not always the case. Even when such a favorable response does occur, it should not be mistaken for a cure. Examination may still reveal inflammation, fluid, and a conductive hearing loss. Therefore, it is important to examine the ears periodically until the ear returns to normal.

Antibiotics also mask symptoms. There may be an active mastoiditis or even intracranial complication without pain, fever, leukocytosis, or localizing signs. Constant awareness and scrutiny are necessary if such complications are to be diagnosed early.

While some otologists[5,6] are opposed to the routine use of antibiotics, the consensus favors use of these drugs in every acute suppurative middle ear infection. The choice of the particular antibiotic is usually one of individual preference. It is not the intent of this paper to delve into the details of antibiotic therapy. Suffice it to say that therapeutic doses of the particular drug should be used for a minimum of five days. However, the high incidence of H. influenzae infections in infants is of therapeutic significance. This organism is sensitive to the sulfonamide drugs and is usually resistant to penicillin. Therefore, in infants, either a broad spectrum antibiotic or a combination of penicillin and a sulfonamide is preferable to penicillin alone.

Frequently, a serous transudate remains in the middle ear following antibiotic treatment of a suppurative process. These cases of postinfectious serous otitis media are usually overlooked unless the patient complains of the hearing loss or peculiar cracking noises. In children, persistence of serous otitis media is a definite indication for adenoidectomy.

In addition to antibiotics, the use of a nasal vasoconstrictor is still valid. The drops must reach the nasopharynx and Eustachian tube area to be effective. Shrinking the mucosa around the tubal orifice promotes proper drainage and ventilation of the middle ear.

Myringotomy

Myringotomy is performed infrequently today. There is a difference of opinion regarding myringotomy among otologists and other doctors who treat otitis media. Otologists make a strong case for myringotomy. Harrison,[3] a pediatrician, describes his experiences with and without myringotomy. He is of the opinion that an acute bulging drum is a surgical emergency. Lahikainen[4] treated acute suppurative otitis media in 453 patients. All age groups were represented in this study. Using only myringotomy, 98 per cent of these patients made an uneventful recovery. In this study there were nine complications including one death. Rutherford[9] recently treated 150 patients with bulging drums by myringotomy and used antibiotics in 28 per cent. There were no complications reported.

Myringotomy may be done justifiably whenever a patient has a bulging drumhead. However, antibiotics have altered this somewhat. When there is only slight bulging or fullness of the tympanic membrane with minimal pain and fever, a twenty-four to forty-eight-hour trial of antibiotics is permissible, providing the ear is inspected daily. If the bulging persists, immediate myringotomy is done. Culture and sensitivity studies of the exudate are taken at the time of myringotomy.

Myringotomy is urgently indicated when there is marked bulging of the tympanic membrane. Otologists recommend myringotomy whenever there is marked otalgia, sepsis, mastoid tenderness, nuchal rigidity, and other signs of intracranial irritation. The surgical axiom requiring incision and drainage of an abscess is still valid even in the antibiotic era.

There are no contraindications for myringotomy. The wound heals by primary intention in a few days. There is no impairment of hearing due to a properly performed myringotomy. On the contrary, myringotomy is an important procedure in the preservation of hearing. When deafness does occur in a patient who has had a myringotomy, the deafness is invariably due to middle ear changes caused by the disease process. In the pre-antibiotic era, Maxwell and Brownell[7] demonstrated that early myringotomy was far superior to either late myringotomy or spontaneous perforation. The recovery rate was slower and the incidence of surgical complication was higher when

myringotomy was delayed. When spontaneous perforation occurred, there was inadequate drainage and the tympanic membrane was slow to heal. These same conclusions appear to be true today.

Myringotomy is performed in the area of greatest bulging. This is usually in the posterior quadrants. A sharp knife and brilliant illumination are essential. General anesthesia may or may not be required depending on the patient's age and general condition. While not essential to the procedure, aspiration often produces an unbelievable quantity of purulent exudate. A short section of a small gauge, soft rubber catheter attached to an eyedropper makes an excellent aspirator. It is readily available and atraumatic. It gives the operator satisfaction to visualize the aspirated material.

The results of myringotomy are most gratifying. Dr. A. C. Furstenberg, my former professor, has said that myringotomy is the most charitable thing to do. There is usually dramatic relief of symptoms. The disturbing otalgia disappears immediately. The temperature usually returns to normal within twenty-four hours. The tympanic membrane returns to normal in a few days. The antibiotics become more effective after myringotomy has drained the purulent exudate from the middle ear.

Summary

This paper was written primarily for the pediatrician and generalist since the majority of acute middle ear infections are treated by these specialists. It is the author's desire that this review of the salient features of acute suppurative otitis media will result in more effective therapy and a further reduction in complications. The key to success lies in candid otologic examination and the proper use of the antimicrobial drugs and myringotomy. Invariably, prompt recovery and restoration of normal hearing will be secured.

Acknowledgment

I wish to express my gratitude to Dr. William Saunders, Professor of Otolaryngology, Ohio State University for his invaluable assistance in preparing this paper.

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APT HISTORIC NOTE

Present-day concern about nuclear radiation and atomic energy has a spectacular parallel in an event almost seventy years ago at The University of Michigan. In the late 1880's, the public was generally alarmed by the then newly-discovered world of microbes. Each revelation of the deadly potential of the invisible organisms increased the apprehension of the general public.

According to Henry P. Vaughan, M.D., president of the University of Michigan School of Public Health, the "emergency" started when the University's Department of Hygiene undertook to collect and examine water samples from Michigan villages and cities for the presence of typhoid germs.

In 1889, a wagon-driver, delivering a shipment of these water jugs stumbled in the lobby of the laboratory building (now the West Physics building) on the University campus. The jugs shattered. Water drenched the entrance way, and the public envisioned the release of billions of death-dealing microbes.

There was a general campus hysteria. Students and professors took to entering and leaving the building through windows, and avoided the lobby like the plague they suspected it contained. Letters of indignation began to arrive from alarmed citizens. The University Regents demanded the Department of Hygiene "show cause" why it should not be disbanded as a threat to the health and welfare of the community and the state.

During the ensuing days, tempers flared and life for the hygienists grew hectic. But—a fact virtually overlooked in the wave of pessimism—no one took sick. Gradually, people discovered that the city and university were not doomed, and the emergency trickled away.

Research and teaching continued. Some seventeen years ago, the Department of Hygiene grew into the modern School of Public Health and has made notable achievements in protecting mankind from disease. During and following World War II, the School made dramatic contributions in the fight against influenza, polio, malaria, and a number of exotic tropical diseases.

The public has learned to trust public health scientists," Dean Vaughan points out. They have learned we can study and fight the most deadly disease germs within the laboratory without letting them get out of control to threaten the community."

Back in 1889, the Hygiene Department shared the laboratory building with the Department of Physics. The story is that the physicists were the most devoted windowclimbers long after the water dried out in the main lobby.

"Now the shoe's on the other foot," Dean Vaughan concludes. "The physicists' atomic power has all of us thinking about deeper cellars. In time, we'll learn that his power, too, can be used safely in laboratories for the benefit—instead of the destruction—of mankind."

The Laboratory Examination of Staphylococci

By Norman D. Henderson, M.D.
Lansing, Michigan

THE LABORATORY examination of staphylococci is essential in any program designed to gain knowledge about or to control staphylococcal disease. To be meaningful to the physician, the results of this examination must: (1) be accurate, (2) be available within a reasonably short period of time, (3) include information which characterizes the pathogenic forms of this organism and (4) include information concerning antibiotic resistance and susceptibility.

The characteristics most commonly sought for in the laboratory while attempting to identify or characterize staphylococci are:

1. The microscopic appearance as determined by the Gram stain.
2. Pigment production which is used for differentiation of species according to the classical definition of staphylococci.
3. Hemolysis of red blood cells.
4. Fermentation of selected carbohydrate solutions.
5. Enterotoxin production in the case of suspected food poisoning.
6. Coagulase production.
7. Antibiotic sensitivity.
8. Bacteriophage type.

Bacteriology[7]

By definition, staphylococcus is a Gram-positive coccus occurring singly or in groups of grapelike clusters. Pigment production is used to differentiate three different species of the genus Staphylococcus. Those organisms producing a golden pigment on primary isolation are designated as Staphylococcus aureus. Cultures producing a yellow pigment on primary isolation are designated as Staphylococcus citreus while Staphylococcus albus produces a porcelain white pigment. The development of pigment is dependent upon the media used, duration and temperature of incubation, available oxygen supply, and should always be noted as soon as possible after primary isolation.

Hemolysis of red blood cells is used to test the ability of a culture to elaborate the toxin, hemolysin. It is known that several hemolysins are produced by staphylococcus,[2] production being dependent upon the temperature of incubation, the duration of incubation and the media used. The detection of the type of hemolysin produced is determined by the type of blood (rabbit, sheep or human) and the conditions of incubation used. The hemolysin most commonly tested for is the alpha hemolysin which is defined as being active against rabbit, but not against human, red corpuscles and causing lysis rapidly at 37°C. Alpha hemolysin has some action against sheep red blood. This definition is significant because many hospital laboratories use outdated human blood from their blood bank in the production of blood agar plates.

The organisms of the genus Staphylococcus have the ability to ferment a wide variety of carbohydrates. The single sugar, mannitol, has been selected for the testing of pathogenic strains because the fermentation of this substance correlates well with hemolysin and coagulase production.

The ability of staphylococci to produce the enzyme coagulase has been selected as the criterion which correlates best with pathogenicity.

Antibiotic sensitivity testing is usually done by the plate-disk method using disks bearing standardized concentrations of various antibiotics. Bacteriophage typing is performed on pure strains of staphylococcus which demonstrate one or more of the characteristics of pathogenicity referred to above.

S. albus is generally considered to be of a low order of pathogenicity, being isolated frequently from acne pustules, stitch abscesses and other minor suppurative conditions of the skin. However, because it is one of the organisms most commonly isolated from specimens of clinical origin, the bacteriologist must be able to differentiate S. albus from the more pathogenic S. aureus. S. citreus is considered to have little, if any, pathogenic status.

Staphylococcus aureus has a high order of pathogenicity for man and lower animals. Strains of this organism frequently demonstrate any or all of the eight characteristics described above. In most laboratories, pathogenicity is not tested for *per se* but is assumed, based upon the combina-

Dr. Henderson is Coordinating Physician, Division of Laboratories, Michigan Department of Health.

tion of results of several laboratory tests. The criteria of pathogenicity most commonly required are: (1) production of alpha hemolysin, (2) production of coagulase, (3) fermentation of mannitol.

If the cultures under study are from a known clinical situation, the examination is completed by testing for antibiotic sensitivity and submitting the culture for bacteriophage typing.

Methods[3]

Upon receipt in our laboratory, the specimens are streaked out on infusion sheep blood agar plates. If there is delay of twenty-four hours or more in delivering the specimens to the laboratory, it is helpful to soak the swab in nutrient broth for one to three hours in order to obtain sufficient growth. Fresh swabs taken from lesions will frequently produce luxuriant growth requiring serial streaking with a wire to obtain isolated colonies. Overnight incubation of the plate is carried out at 37°C. Typical colonies of staphylococci which produce a golden pigment and also hemolyze the sheep blood are picked for further study. It is not possible to lay down a hard and fast rule on the selection of colonies. The work of Baldwin[1] and others has shown that there is a considerable variation in the production of both pigment and hemolysin. Pathogenic strains of staphylococci frequently fail to produce a typical pigment while some strains will fail to demonstrate typical alpha hemolysin production. Considerable experience is necessary to judge the degree and extent of pigment production and hemolysis.

A single characteristic colony is transferred to a tube of 1 per cent mannitol broth and a single tube of veal blood broth for coagulase-hemolysin testing. This single tube test for coagulase-hemolysin testing was developed at our laboratories for the purpose of having available a test of these two major criteria which could be done rapidly and accurately. The medium consists of a veal infusion broth base to which is added, aseptically, citrated rabbit blood (6 per cent by volume) and rabbit plasma (15 per cent by volume). The tubed medium is allowed to stand overnight so the red blood cells will settle out forming a layer at the bottom of the tube. The medium is inoculated with a straight wire, carrying the inoculum as far as the interface of the red cells and liquid media. Care must be exercised so as not to disturb the layer of blood. Coagulase positive organisms will clot the plasma within three hours. If the culture produces alpha hemolysin, the rabbit cells are lysed in eighteen hours with the liberated pigment diffusing up through the clot.

Incubation of the coagulase-hemolysis tube and the mannitol broth is carried out in the 37°C water bath. At the end of three hours, the tubes are examined for coagulase production and incubation continued overnight. If the culture is coagulase positive at three hours, a sterile cotton swab is soaked in the mannitol broth and used to inoculate the entire surface of a sheep blood agar plate. Antibiotic sensitivity disks are placed on the surface of the agar and the plate incubated overnight at 37°C.* On the morning of the third day, the results of testing are available. A preliminary report is sent to the physician. Cultures which are hemolytic, coagulase-positive and ferment mannitol and are from a known clinical situation are submitted for bacteriophage typing. A final report is made when phage typing is completed.

It is frequently possible at this stage in the investigation to render a preliminary opinion as to whether or not a group of cultures, originating from a single hospital outbreak, represent a common infecting strain. If the cultures produce coagulase rapidly (one to three hours), hemolyze rabbit red blood cells, ferment mannitol and have a common antibiotic pattern, it can be assumed for preliminary epidemiological purposes that the cases under study are infected with a common strain. In other words, by the use of the procedure and media described it may be possible for a hospital laboratory to issue a preliminary report as to similarity of cultures within forty-eight hours of the receipt of the specimen. Our experience has shown that there is a very close correlation between the antibiotic sensitivity pattern of the "epidemic strain" as defined by Shaeffer[5] and the bacteriophage type. This relationship holds true for a series of otherwise similar cultures isolated from a hospital epidemic but not to the degree of consistency that is observed with the "epidemic strain." However, the final evidence of type must be determined by bacteriophage typing.

Another benefit of the method as described is that the bacteriologist is able to recommend the appropriate antibiotic at the same time that he renders his preliminary report. He thus is able to

*Currently we are testing all cultures for sensitivity to penicillin, erythromycin, chloramphenicol, streptomycin, tetracycline and oxytetracycline.

answer the two main questions posed by the clinician: First, what is the etiological agent causing these infections? Second, what is the drug of choice for treating these infections?

Surveillance and Control Procedures

Bacteriological studies and surveys of personnel for carrier status are expensive and time consuming. Once it has been established that infections, due to staphylococcus, are occurring in the hospital to a significant degree, consideration should be given to the initiation of bacteriological control procedures. However, plans should not be put into operation until the entire staff (both professional and ancillary) is fully informed as to the scope of the work, the procedures to be followed and the possible courses of action in the event that a serious problem is discovered in one or more parts of the hospital. When this understanding is achieved, cooperation from all levels will be forthcoming and the laboratory data obtained will be both complete and meaningful.

Discussion

Continuous laboratory control data will alert the hospital staff in the event of several possible developments. First, it will enable the administration to determine the extent of dissemination of the infecting strain throughout the hospital and the staff. This requires a survey of personnel by the use of nasal swabs to determine if colonization has taken place, or a sampling of various fomites, in the hospital environment. In a sense this allows the laboratory to measure the extent or degree of contamination within the hospital. An increased number of positive isolations from the personnel or environment suggests continued dissemination of the organism. This would most likely indicate that a break in technique has occurred which needs correcting. Additional control work could be instituted to determine the source of contamination.

Second, bacteriological control work will allow the laboratory director to alert clinicians to the development of resistance to antibiotics. This is particularly important where the use of a prophylactic antibiotic has been instituted to bring an epidemic situation under control.[5] Examination of specimens submitted from a Michigan hospital, which has been using erythromycin prophylactically for a period of one year, revealed that cultures isolated from lesions at the time of the second outbreak were uniformly resistant to erythromycin. The strain of S. aureus causing the first outbreak was uniformly sensitive to erythromycin.

Third, laboratory surveillance will detect the introduction of a new type of staphylococcus which may have an entirely different pattern of antibiotic susceptibility and resistance than the strain which caused the original outbreak. Fourth, continued laboratory controls are essential in checking technique used in maintaining a "clean" situation once the epidemic is stopped. This may be done by the simple expedient of taking nasal swabs on newborn infants at the time of discharge or through intermittent nasal swab surveys of patients or personnel assigned to the surgical departments or other parts of the hospital.

It is important to remember that staphylococcal infections originating in a hospital may be the cause of secondary infections in other members of the family or the community. Wentworth[6] and Ravenholt[4] have established the fact that frequently a community epidemic may exist but be unrecognized following a hospital epidemic. There is great need for a system which will allow for central correlation of laboratory and clinical data evolving from staphylococcal disease diagnosed and treated outside of the hospital.

Conclusions

1. The bacteriology of the genus Staphylococcus is well known.
2. Staphylococcus aureus is the most pathogenic of the several species of staphylococcus.
3. The most commonly accepted criteria of pathogenicity of Staphylococcus aureus are the production of alpha hemolysin, production of coagulase and the fermentation of mannitol.
4. Epidemic strains of staphylococcus can be accurately diagnosed by techniques available to most hospital laboratories. However, precise identification of a given type is possible only with bacteriophage typing.
5. The data obtained from the laboratory examination of staphylococcus is essential to any program designed to control staphylococcal disease in either hospital or private practice.

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Epidemic Staphylococcus in a Nursery for Newborn Infants

By Mark F. Osterlin, M.D.
Traverse City, Michigan

THE PROBLEM of staphylococcus infection in the newborn nursery of a general hospital was forcefully brought to our attention in September, 1957, by an epidemic of pustular skin lesions and infected umbilical cords. In retrospect, this epidemic should have been anticipated. No serious outbreak of infections had ever occurred in the obstetrical and newborn service of our hospital in which approximately 1,000 deliveries occur each year. In May, 1957, a premature infant developed an abscess on the face and also some pustules which responded readily to treatment. Although no cultures were taken at this time, subsequent events lead us to believe that this was probably the onset of our trouble. Sporadic pustular lesions occured in other infants during the ensuing months and, in general, responded well to treatment by the attending physician.

In late August the incidence increased and the lesions did not respond to the usual antibiotic and local therapy. At this time, the assistance of the State Health Department was requested, and we are deeply grateful to Dr. George H. Agate and his associates for the valuable assistance which made it possible to bring this epidemic under control. Cultures taken from seven infants on September 4, 1957, were reported as having the epidemic strain of staphylococcus. The characteristics of this particular organism and their implications are discussed in other articles in this journal. Immediate steps were taken to determine the source of this infection and to bring it under control. Nose cultures were taken on all individuals whose work in any way involved the obstetrical department. This included staff physicians, nurses, nurses aides, personnel from the housekeeping department, laboratory, central supply, pharmacy—everyone who, directly or indirectly, had anything to do with the obstetrical and newborn service. This study revealed five individuals, including two staff physicians, one orderly, one practical nurse, and one individual in central supply, who had the epidemic staphylococcus in their nasal culture. These individuals were immediately removed from any contact with the department. Emergency powers were granted to the chief of obstetrics and the chief of pediatrics by the executive committee of the staff, and the following steps were taken:

1. The two nursery units and the premature unit were stripped of all unessential equipment, including all draperies and curtains at the windows. One newborn unit was thoroughly cleaned and only subsequent deliveries admitted to this unit. The other unit was kept as an isolation room for those babies already infected.

2. All babies were bathed with hexachlorophene soap on the first day following delivery and every second day therafter.

3. All babies were given erythromycin, 5 mg. per lb. bodyweight, every six hours. This medication was continued for three days after discharge from the hospital. No local medication was used and all orders in effect at the time were cancelled.

4. Visitors were restricted to one individual, usually the father, for one-half hour daily.

5. No surgical procedure was permitted except emergencies.

6. Rules regarding scrubbing and the wearing of a clean gown for anyone entering the newborn nursery, were rigidly enforced.

7. All babies in the clean nursery were examined daily for a suspected rash. All suspected lesions were cultured immediately and the baby transferred to the isolation unit.

8. Information regarding the epidemic was made public through the press.

The results of these procedures were striking, indeed. None of the babies admitted to the clean nursery developed pustular lesions, and within ten days there were no new infections noted in

From the James Decker Munson Hospital, Traverse City, Michigan.

the isolation unit. The above emergency measures were carried on for a period of four weeks. At that time the erythromycin medication was discontinued, surgical procedures such as circumcisions were again permitted, and visiting regulations were changed permitting two visitors daily for one hour in the afternoon and one hour in the evening. All personnel in the obstetrical department had repeat nose cultures and those individuals who had positive cultures on the initial investigation were found to be still positive. One additional staff physician was found to have a positive culture for the epidemic strain.

Several mothers developed breast abscesses which were quite resistant to treatment. Most of the abscesses required extensive surgical drainage in addition to treatment with erythromycin. One mother had considerable trouble with furunculosis. Her culture was positive for the same epidemic strain of staphylococcus.

Discussion

Dr. G. D. Cummings of the Michigan State Health Department has made the comment that a single pustule or a single loose stool in a newborn nursery is an epidemic. Perhaps this is an exaggerated statement but, in retrospect, we are inclined to agree. We feel that the most important phase of our problem was the recognition that we were in trouble, and this came much too late. Without such recognition, regardless of where it occurs in the hospital, there can be no organized effort to correct it. Although there was no mortality, the incidence of infection, both in babies and mothers, should have been much lower. There have been no new infections with the epidemic strain of staphylococcus and, apparently, the epidemic is under control. Further culture studies on the personnel will be done and every effort made to prevent a recurrence. Full co-operation of the hospital personnel and the public is essential.

Summary

Experience with an epidemic of impetigo due to the epidemic strain of staphylococcus occurring in the newborn service of a general hospital is described. The early recognition of such a problem is emphasized. Procedures necessary to bring such an epidemic under control are outlined.

LABORATORY EXAMINATION OF STAPHYLOCOCCI

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Staphylococcal Infections in Infants

Clinical Manifestations and Treatment

By Thomas E. Shaffer, M.D.
Columbus, Ohio

IN ITS early stages, the etiology of an epidemic of staphylococcal infections in a maternity service may be overlooked because of the mild nature of the infections. The usual manifestations of staphylococcal infections among newborn infants are pustular rashes, conjunctivitis and paronychiae. Each of these, occuring sporadically, may be mistakenly diagnosed as non-infections: the inexperienced observer might consider skin manifestations to be heat rash, diaper rash or erythema toxicum neonatorum; the conjunctival inflammation might be diagnosed as chemical conjunctivitis (due to instillation of silver nitrate) or inclusion blenorrhea; and infections around the nails might well be considered as due to trauma or irritation from bed linen or clothing.

The etiology of nursery-acquired infections and the existence of epidemic conditions may also be obscured by the long latent period which may occur between exposure to infection in the nursery and signs and symptoms of illness. There may be an interval of many weeks between the time when an infant acquires a pathogenic strain of staphylococci on his skin or in his nasopharynx from the nursery environment (is "colonized") and the first appearance of infectious lesions. This is especially true with Staphylococcus pyogenes phage type 42B/52/80/81. Thus any pyogenic infection occurring in an infant during the first three months of life should suggest inquiry about past and present incidence of infections in the maternity service where the infant was born.

The typical *skin lesion* is a vesicle 2 to 10 mm. in diameter, only partially filled with a thin, cloudy fluid. Such lesions have been termed "impetigo of the newborn," "pyoderma," or simply "pustules" or "blebs." In contrast to the more common erythema toxicum neonatorum (in which tiny pustules on a larger erythematous base may occur generally distributed over the entire body during the first few days of life) vesicles due to staphylococci are larger, they usually appear first in the folds of the neck, groin, axillae and in the diaper area, and ordinarily do not occur during the first two days of life. Such lesions are almost always caused by staphylococci and should be investigated promptly by culturing the contents of a vesicle. A quick appraisal of the rash may be obtained by examining a stained smear of fluid obtained from such a vesicle, in which polymorphonuclear leukocytes and staphylococci will usually be seen. The contents of a vesicle in erythema toxicum show a predominance of eosinophiles but no bacteria on smear, and cultures are sterile.

Even mild *conjunctivitis* in newborn infants must be considered as staphylococcal in etiology until this is disproved by culture. Staphylococcal conjunctivitis may be so mild that the only sign is scanty yellow discharge ("sticky eyes") and reddened tarsal conjunctivae. Although one may be tempted to attribute conjunctival discharge to Credé treatment, every time these symptoms are observed, cultures of the discharge should be made to detect any staphylococcal infections.

Paronychiae, manifested by erythema around the nail and subsequently by formation of pus, are almost invariably caused by staphylococci and cultures accordingly should be made.

Suppurative mastitis has occurred in most epidemics of staphylococcal infections among newborn infants. This condition is usually unilateral, is manifested by swelling, erythema and tenderness and usually progresses to abscess formation. It is probable that mastitis is caused by entry of staphylococci to the mammary glands from the skin through the mammary ducts because there is seldom any sign or symptom to suggest septicemia. Infection of the mammary glands in newborns must be differentiated from physiologic engorgement of the breasts so frequently seen at this age. In this latter condition both breasts usually are enlarged and there is no significant erythema or tenderness.

More extensive infections such as *cellulitis* and *abscesses* occasionally occur and usually are com-

From the Department of Pediatrics, The Ohio State University College of Medicine and The Children's Hospital, Columbus, Ohio.

plications of pre-existing pyoderma. Also surgical wounds frequently become infected in infants who have had pustular infections of the skin and therefore elective operations such as herniorrhaphy and plastic operations should never be performed on an infant who has had pustular skin infections or even on one who has recently been discharged from a nursery where staphylococcal infections were occurring. In such cases, the presence of pathogenic staphylococci should be ruled out by a nose culture before elective operations are undertaken during the first six months of life.

True *omphalitis* due to S. pyogenes is occasionally observed, although the more common cause of discharge from the umbilicus is one or more pustules in the area. Lymphangitis and lymphadenitis occur infrequently in staphylococcal infections in newborn infants.

Pneumonia and *septicemia* are the most serious manifestations of staphylococcal infections in newborn infants. The former may be preceded or accompanied by septicemia. Often the onset of pneumonia is not at all typical of a respiratory infection for the infant my show only listlessness and anorexia. These symptoms in the neonatal period should be investigated by blood cultures and roentgenograms of the lungs. Prompt diagnosis and treatment of staphylococcal pneumonia in infants is important because pneumothorax and pleural exudate occur early in the disease at this age period.

Staphylococcal infections in older children differ in many respects from infections of the same etiology in the neonatal period. Abscesses are common and likely to develop as complications of abrasions of the skin, insect bites, eczema or lesions of exanthemata. Osteomyelitis and purulent arthritis, resulting from septicemia, are the most serious staphylococcal infections among older children.

Suppurative mastitis in nursing mothers is a frequent occurrence during epidemics of staphylococcal infections in hospital newborn nurseries and appears to be directly related to infections in the nursing infants. During some nursery epidemics, the incidence of breast abscesses among nursing mothers has been noted to be more than 30 per cent. The incubation period between birth of the child and the onset of mastitis in the mother has generally been about twenty-one days. Since mothers who do not nurse their infants seldom, if ever, develop breast abscesses it is quite evident that mastitis is acquired from the oral cavity of infants who may have obvious infections or may simply be carriers of the organism. The infant of a mother suffering from a breast abscess does not always have lesions indicative of staphylococcal infections.

Treatment of Staphylococcal Infections

As soon as diagnostic studies (cultures of lesions and blood, and smears) have been initiated to establish a suspected diagnosis of staphylococcal infection, antimicrobial therapy should be started. Although it is tempting to initiate treatment with penicillin, this drug is not always appropriate. This is especially true in cases where infection was obviously acquired in the hospital —such as infections of infants in, or recently discharged from, a hospital nursery and instances of breast abscesses of nursing mothers. Penicillin in such cases usually is ineffective because practically all hospital strains of staphylococci are highly resistant to penicillin. The majority of strains of staphylococci isolated from hospital-acquired infections are resistant to penicillin and to the tetracyclines and are sensitive to erythromycin, chloramphenicol and novobiocin. Practically all strains are sensitive to bacitracin and neomycin. Therefore effective antibiotic therapy of staphylococcal infections must be based on careful studies of antibiotic sensitivities of the particular strain of S. pyogenes isolated from lesions. In general, suspected staphylococcal infections presumably acquired in hospitals should be treated with chloramphenicol or erythromycin while cultures and antibiotic tests are being done. This practice would apply to infections in infants and their mothers and to postoperative wound infections.

Staphylococcal infections of children over the age of one year probably are due to penicillin-sensitive "home" staphylococci and may reasonably be treated with large doses of penicillin while laboratory reports are awaited.

In addition to antimicrobial therapy other measures usually are indicated. Local treatment of infections by heat and by surgical intervention when localized collection of pus is noted, are essential adjuncts to antimicrobial therapy in the treatment of staphylococcal infections. Surgical drainage of a localized deep abscess often is sufficient treatment without the use of antimicrobial drugs. Additional inoculation of the skin with pathogenic

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The Control and Prevention of Staphylococcal Infections in Newborn Infants

Some Fundamental Considerations

By George H. Agate, M.D.
East Lansing, Michigan

STAPHYLOCOCCAL infections in newborn infants have plagued hospital nurseries for many years.[1,2] Recently, outbreaks of these infections have become increasingly widespread and there has been a similar, but less spectacular, rise in staphylococcal hospital infections among patients of all ages. These occurrences have seemed to follow in the wake of the increased number of strains of microorganisms resistant to the antibiotics in common use.[3]

The infections in infants range from troublesome skin pustules to abscesses, pneumonia, gastroenteritis, and even fatal septicemia. The first evidence of infant infection may be delayed until after the infant leaves the hospital. Mothers of the infants may develop abscesses of the breast. Following the arrival home of a newborn infant, other family members may develop infections. The baby sitter may acquire such an infection from an infant and take it to school. All these have been observed in Michigan and apparently may be related to staphylococci which the infant acquired in the nursery and which were conveyed to the family group by close contact. These infections may result in readmission to the hospital where the infant was born or to other hospitals. Thus, what is primarily a maternity hospital problem becomes a problem not only to the entire hospital, but also to the community.[9]

Very little knowledge is available concerning the early bacterial flora of the newborn infant. It appears, however, that the infant is peculiarly susceptible to acquiring staphylococci during its first days of life.[11] These organisms become rather quickly implanted, or colonized, in the nasopharynx and on the skin surfaces.[7] As early as the first two or three days of life they may be found in large numbers in the infants' stools.

The staphylococci the infant acquires as its earliest flora are those which are present in the people who care for it.[2] Since a high percentage of the personnel who work in hospitals carry coagulase-positive staphylococci in their anterior nares, it is quite likely that the hospital-born infant will be exposed to these potentially pathogenic organisms in its first days of life. Fortunately, most of the potentially pathogenic staphylococci colonized do not under ordinary circumstances appear to cause disease in the infant or his contacts.

We cannot keep staphylococci from infants nor do we know it is desirable to do so. We can prevent infants from being exposed to great numbers or undue dosage of bacteria and should be able to prevent their contact with pathogens capable of initiating disease. The majority of outbreaks of staphylococcus infections in newborn nurseries which the writer has had the opportunity of investigating in Michigan has been found to be due to one member of the coagulase-positive group: phage type 42B/47C/52/80/81. While this has been considered to be a relatively rare type, it is known to have been predominantly present in hospital outbreaks in ten counties in the state and seems to be quite widespread. This strain has also been found in some sporadic or occasional cases of newborn infection. In most of these, a varied group of coagulase-positive, and in some even coagulase-negative organisms were found. Staphylococci are so ubiquitous, the significance of finding them in pathologic processes has to be very carefully weighed. It is probable that host factors, the factor of dosage (with possibly other as yet undefined factors) are required to "set the stage" for the staphylococcus to perform. It may be that epidemic strains are to some degree similarly opportunists, even though at the present time they appear able to initiate disease themselves. A further understanding of the circumstances which may initiate infections would be most helpful.

Outbreaks of infection should be dealt with promptly. The sporadic case or cases may indicate an impending outbreak and should be investi-

From the Acute Communicable Disease Section, Michigan Department of Health.

gated. Whether nurseries are being troubled or not, every effort should be put forth to prevent all infections in the newborn. In prevention, nothing has as yet been found that takes the place of clean and aseptic techniques plus prompt adequate isolation of cases and suspected cases of infection. These have paid and will continue to pay high dividends in the prevention of not only newborn infections but all hospital cross-infections. The confidence we all have in a hospital is very greatly enhanced by the knowledge that all necessary aseptic precautions and safeguards are taken.

It is believed that the proper handling of infants in the hospital under reasonable, attainable, clean, and aseptic techniques can prevent the occurrence of outbreaks of infection. The term "techniques" should, however, go far beyond the washing of hands, proper gowning, correct disposal of excreta, and isolation of infections. The situation we are faced with in nurseries today makes it essential even in these basic procedures that we remove as much as is possible of the human factors in the execution of these techniques. We must, of necessity, make the right way the simplest way to perform them. Recommendations of recent years have tended toward small nurseries where one person can care for all of the infants in that nursery for each work shift, the intermittent use of each nursery, proper spacing of beds in nurseries at all times, individual equipment for each infant and individualized handling of infants. They include also such environmental factors as air conditioning, controlled humidity and scientific housekeeping procedures.

The major method of spread of staphylococci in an outbreak appears to be from infant to infant.[2] Cubicles would probably tend to prevent this in several ways, and additionally they would make any dangerous overcrowding much more evident than when they are not present. Cubicles have been removed from most old nurseries, and are presently not often recommended for new construction.[1] Their absence should not be interpreted as an indication that individualized care and proper spacing of bassinets is no longer necessary.

It was recommended several years ago that the customary "dry skin" care of infants in which the vernix was allowed to remain be replaced with baths using a detergent, lanolin, petrolatum mixture containing 3 per cent hexachlorophene. These baths were usually given initially in the first twenty-four hours following birth and every other day thereafter, while in the nursery. Studies showed this to be a highly successful method of preventing nursery skin infections. These baths are presently being used in many hospital nurseries[2] The mixture described for this purpose is relatively nonirritating. While the hexachlorophene theoretically leaves an inhibitory film, a substantial value to newborn infants seem to lie in the early removal of vernix. It appears that if the vernix is allowed to remain it can act as a culture media for bacteria. Then as it dries and sheds from the skin it becomes particulate matter which seems to be a factor in disseminating infection from infant to infant.[2] While these baths may reduce the number of infants colonized with an epidemic strain (if such a strain is present in the nursery) and while they may also reduce the dosage of bacteria which the infant may be exposed to, they are not apparently fully protective in that infants may still be colonized with epidemic staphylococci if personnel continue to harbor them, and the infants may develop infections after leaving the nursery.[2] This suppressive effect therefore probably increases the need for surveillance of infants after they have left the hospital to insure they are not being infected in the nursery.

Masks are not commonly worn by permanent nursery personnel except in the case of infants suspected of having or isolated for infections. The failure of those who have contact with other hospital patients (such as physicans, medical technicians and housekeepers) to wear masks for the short period they are in contact with infants, or in the nursery, may result in the transfer of infection to infants. It has recently been suggested that talking or laughing on the part of attendants, whether masked or not, can result in staphylococci being transmitted to patients.[5]

All personnel (including physicians, medical technicians, and housekeepers) who have contact with the nursery must maintain barriers against infection at all times. It is particularly important for all physicians to rigidly adhere to the best technical standards in their nursery visits. The relatively untrained personnel will not follow rules which the physicians ignore. The carrying out of effective techniques requires that periodic refresher courses and discussions be held with all personnel.

The phage typing of staphylococci is a relatively new procedure in which the coagulase-positive

group of staphyloocci can be fairly accurately divided into a number of types. When this testing of cultures is combined with the antibiotic sensitivity pattern, it is possible to determine with reasonable exactness the identity, or nonidentity, of the cultures under consideration.[4] By means of this testing, it has been found that recent epidemics of staphylococcus have been largely due to one phage type of organism.[10] Various workers have demonstrated that it is possible in such situations to determine the organism found in the pustules of infants, or abscesses, and to find the same organisms in personnel caring for infants. It has been further demonstrated by removing these personnel-carriers from the nursery environment, and breaking the chain of infant to infant contact, the outbreak of infection caused by the organisms they were carrying can be promptly terminated.[2,3,10] This method has proven to be a most valuable tool in the control of outbreaks of staphylococcus infections, and should also prove to be of similar value in the epidemiology of the sporadic case about which our information seems to be sadly lacking.

The sensitivity pattern of staphylococci to antibiotics represents a rather rough index of the antibiotics being used in a particular hospital. Various phage types may have the same antibiotic sensitivity pattern. When we have an outbreak and find one specific phage type of organism to be present, we ordinarily find that the sensitivity pattern of that organism to antibiotics also has a uniform pattern. The antibiotic sensitivity test is therefore of considerable help to us in the rough identification of cultures. It is important, however, for reasons of economy of personnel, and scientific accuracy, that it not be used alone as a definitive measure.[3] By the same token, unless examination of the cultures from actual lesions is carried through phage typing, it has only a limited value in the fundamental defining of an outbreak.

It is important that we have a mechanism operating through which there is prompt recognition of infections of the newborn, not only while they are in the hospital, but for a period of time after they have left the hospital. One physician should be in charge of the nursery for the purpose of recognizing and preventing nursery infections. The physician selected for this appointment would, of necessity, have to give a great deal of time to it initially if his work is to be effective, and he would have numerous functions.

He would formulate policies and procedures by which the care of infants in the nursery would be guided.

He would take such measures as were necessary to insure that all personnel who entered the nursery were free of infection or conditions which could be dangerous to the infants.

He would insure that the hospital has a plan for nursery personnel to engage in other work should they have minor illness.

He would make certain that infants suspected or actually having infections were promptly isolated, and that proper isolation procedures were carried out for them.

He would set up a plan whereby any infection of newborn infants which occurred within a reasonable time after they left the hospital were surveyed to determine any relationship to having acquired the infection in the nursery.

He would be responsible for the collecting of such cultures as are vital to determining the causative agent of infections whether the infant was in the hospital or outside.

He would seek such consultation and advise as was necessary.

In all these matters he would have to have full and complete authority to act promptly as the situation demanded. This authority should come to him from both the administration of the hospital and from its medical staff.

The treatment of newborn infections is a medical problem. The prevention of infections in the newborn requires the complete co-operation and discipline of all who have contact either directly, or indirectly, with the maternity area of the hospital. If we are to successfully carry out an adequate program of prevention, the leadership and example in such a program must come from the medical staff physicians directly concerned in the individual hospital.

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Retirement Day—A Medical Socio-economic Problem

By J. W. Rigterink, M.D.
Grand Rapids, Michigan

MY SPECIAL interest in R day dates back for a period of fifteen years. A patient of mine, and at the same time a good friend and of the same age, had very recently retired as superintendent of one of our junior high schools. I asked him how he felt about retirement. He answered, "Do you want me to tell you the truth?" and I assured him I did. His statement was as follows: "If I had my old job back with no more salary than my present pension, I would retire every night endlessly a much happier man." This came as a rude shock. I had never given a thought concerning what sort of life to live after my own retirement. Everything pertaining to medicine was my hobby and continues to be to the present.

After the above-mentioned conversation, I frequently asked people in various walks of life their candid reactions about retirement. Their feelings were very much the same. For several months they experienced a sense of freedom and enjoyment. After this they became bored, time began to drag on and a sense of dissatisfaction and futility were in the making. During the intervening years, I have arrived at some definite personal convictions.

In order to have a clearer view of the present, it behooves us to look at the subject in retrospect and observe present trends as they unfold themselves. Michigan in 1820, according to the census of that year, had a population of 8,800. The men and women were of younger years and of the hardy pioneer type. Michigan is now facing an entirely new consistency in its population and this holds true for the entire nation. Since the turn of the century, the population of the United States has doubled and the age of men and women over sixty-five years has increased fourfold and according to statistics, there are now over 14,000,000 Americans over sixty-five years old, and increasing at the present rate of 400,000 a year.

In a study last year, the Social Security Administration reports that about two-thirds of the men and women over sixty-five years have less than $1,000 and that only one-eighth of the people arriving at R day have even as much as a high school education. But the most shocking information is that one-third of the 400,000 who attain the age of sixty-five each year have no definite or constructive plan for the future. It is not the ones who have well-formed plans and have enough of material help to arrive at their expectation, nor those who shortly after retirement handle the situation beautifully themselves, who give us worry. Rather it is the 130,000 yearly who arrive at R day without a planned future. I hold no brief with this group. The greater number have never been on their own. Their work was planned, directed and supervised by foremen and managers. They performed their work with credit. A patient of mine served eight years as an apprentice as a hand carver in furniture and followed this job for a period of forty years. "The factory has closed. I am now sixty-five years old and hand wood carving is all that I know. I have not been able to find any job. As my doctor, can you advise me?" This, in brief presents, part of the picture at R day.

Opinions Regarding Retirement

To quote the late Dr. Carl Camp of the Medical Department of the University of Michigan: "The chronological age of retirement at sixty-five is a crazy idea. Some should retire as early as fifty while others are physically and mentally fit to keep at their jobs till seventy-five or eighty." Dr. Paul White, while speaking as President Eisenhower's chief heart consultant, says, "In view of our experience during the last generation, the patient should not be encouraged to retire. The benefits of work on body, mind and soul in any occupation in which it is possible for a cardiac patient to engage can not be over emphasized. Illness breeds unhappiness and is actually poor for the health." Herbert Hoover on his eighty-second birthday says, "Keep busy, otherwise you will degenerate into talking to everybody about your pains and pills and income tax" but he did advise oldsters, "Not to retire from work or you

will shrivel up into a nuisance to all mankind." (AP Press Report, August 10, 1956.) Millions will agree with them. But R day has become a fixed institution.

It is my considered judgment if we are going to try to help retired people, we must start with the individual as early as age fifty or before. He should be made very conscious of the inevitable that confronts him at the age of sixty-five, and that he must keep busy if he desires to keep happy and contented. Otherwise retirement is apt to become a nightmare. After he has come to a decision, he should have wise counsel to determine if he is physically and financially able to carry his plan to fruition. Allow me to illustrate this point. A few years ago a patient of mine came in for a physical check-up and remarked that he had just recently retired. I asked him about his plans. He said he always thought he would like to own a small chicken farm and had bought one. He had never worked on a farm and did not know anything about the care, feeding (including cost), or diseases of chickens. Further he was not aware of the competition in egg market. As a result, in a short time he lost his chicken farm and all of his life savings. Now he is a frustrated and totally discouraged man. Wise counsel is imperative. We must excite the interest and ambition for individual or collective effort of these persons in order to lessen the despair and hopelessness of an inactive life.

Responsibilities

This is a medical, socio-economic problem. The medical fraternity should be acutely conscious that it is their job to observe, to instruct, to treat (if treatment is indicated), with the same enthusiasm exhibited towards a diagnostic problem. All efforts will bring the greatest success if it is personal and not through mass indoctrination. A half-century ago, a sixty-five-year-old man was housed in an ailing body suffering from one or more degenerative diseases. But today medical science is learning how to prevent many of these degenerative diseases. We must prevent the mind from becoming prematurely senile for not only is this an emotional disaster to the individual but a crushing burden to society when large numbers of people face ten or more years of unproductive idleness and dependence.

Many of those who arrive at R day without any plans for their future must lack the initiative to pay sufficient attention to their mental and physical welfare. We must not fail them. Remember that two-thirds of the men and women over sixty-five have less than $1,000 and that one-third of the 4,000,000 have no definite plans for the future. Many a dollar is frittered away—a pack of cigarettes and a bottle of beer a day, at present prices, amount to over $2,500 in a fifteen-year period. It might not be amiss to remind them of Benjamin Franklin philosophy, "If you know how to spend less than you get, you have the philosopher's stone."

Labor Unions

Labor unions have assumed the responsibility for the establishment of R day, the chief argument being that jobs must be established for younger men. We must admit that this argument has considerable merit. The labor unions and their officers have done a tremendous job to secure increased pay, better working conditions, longer holidays, medical and surgical care, fringe benefits, et cetera. I may be amiss, but until recently I have failed to find that they have evolved any plan to prepare their members for retirement except in a materialistic way. "Man shall not live by bread alone." Unions must be convinced that work is essential to maintain health, a mission to keep up their morale and give them recognition as useful members of society. Their members must begin years before retirement with imagination, courage, and determination to plan a future.

Statistical findings show that men and women who retire, improve in health after retirement and to be better off physically than workers who continue on the job. Women can adjust themselves more advantageously after retirement than men. Many new avenues are open to them. If they avail themselves of opportunities, they can be kept busy physically and mentally and enhance their financial position.

The male employe faces a different situation. Retirement may improve his physical well-being, but if he has no employment or responsibilities, rapid mental regression is in the making—a calamity greater than physical degeneration. As a physician, this is my observation and personal conviction.

Employers

Employers have a responsibility which they cannot ignore. They must recognize the fact that despite federal retirement under the Social Security System and the increasing number of pri-

vate retirement plans, most older people want work. Many have given the greater part of their productive years to their jobs and to simply dismiss them at R day seems cruel and inconsistent. Cases are reported in the press where employers are trying to devolve some plans to meet the situation. But if my deductions serve me correctly, the mass of common laborers are not involved. Abraham Lincoln said, "God must have loved the common people, He made so many of them." The employer must not fail them. Many interesting cases are reported in newspapers and magazines where some individuals having passed retirement age, have rediscovered themselves and launched into a new enterprise with outstanding success. But we must face the fact that most of those who give us concern are the ones who for decades have labored under direct instruction of foremen and superintendents and have lost their initiative. Without prior help or further supervision retirement finds them on a dead end street. A final pay check is not a final responsibility.

We would be amiss if we did not give due credit to labor unions and corporations which, in more recent time, are making concerted efforts to establish definite plans for preparing their members for retirement. Educational institutions are giving valuable assistance in arriving at a worthwhile solution. We must always remain mindful of the fact that less than one-eighth of those arriving at retirement age have less than a high school education. The shoe must fit the foot.

Responsibility of Religious Organizations

Physically, man is an animal but he is also endowed with a soul. When Christ was on earth, He administered to the body but most of His ministry was in the spiritual realm. Our most rewarding capacities for comradeship, for love, for the simple enjoyment of life need not be diminished with advancing years. Our spirits must not grow old. The development of "spiritual security" is the answer to many of our emotional problems, insecurity and unhappiness. We must have a real zest for living and a sense of continued usefulness. Charm, beauty, and virility exist in the spirit. More power to the clergymen and members of religious organizations who sense their responsibilities, give help and guidance to the group under our special consideration to show them that there is a godlike dignity in man that is worth preserving. Christ said, "The King shall answer and say unto them, Verily I say unto you, inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me." *(Matthew 25:40.)*

Summary

From every angle considered, there must be a united effort and that effort must start at the grass roots, with the individual. Government care pours millions into the top of the barrel but this will never stop the leak at the bottom. Mass indoctrination is not the answer. Personal consultations should start not later than fifteen years in advance of R day and the individual should be made very conscious of the inevitable implications of retirement. Consultations should come from the medical profession, the labor unions and their officers, the employers and spiritual guidance should be forthcoming from religious organizations.

A tremendous concerted effort is made to save or to rehabilitate sufferers of malignancies, infectious diseases, congenital deformities or senile degenerative diseases. These are laudable efforts. But the challenge is to conserve years of usefulness for those who arrive at R day and not allow them to drift onward to joining, prematurely, the ever-increasing caravan on its final march to the homes for the aged.

Through a united effort, may their Golden years come to a beautiful and worthwhile fruition and may they never have the occasion to quote Robert Burns:

"The best laid schemes o' mice an' men
Gang aft a-gley,
An' lea'e us naught but grief an' pain
For promis'd joy."

50 College Avenue, S.E.

Rehabilitation Medicine in Geriatrics

By M. K. Newman, A.B., M.D., F.A.C.P.
Detroit, Michigan

THE RESTORATION of the disabled older person to a happy and purposeful life is becoming one of the most urgent medical needs today. The major geriatric diseases, as a rule, are incurable, but a considerable amount of them are remedial to varying degrees. The common problems and technical procedures necessary in geriatric rehabilitation will be illustrated by detailed discussion in hypoxia, hemiplegia, osteoarthritis with a special emphasis on the involvement of the hip joint.

The great challenge of the medical profession today is generated by the increasing incidence of senescence associated with disability. (Senescence may be endogenous, chronic, progressive, and degenerative in its disorder.) In a statistical survey in 1950, it was found that the net increase of people over sixty-five now was occurring at the rate of 350,000 each year.[3] The number of known aged with physical and mental impairment was 5.6 million out of a total of 12 million aged.[10] In this latter group which do not require any specialized facilities or services, there was a group of 2.1 million people having disabling conditions lasting longer than three months. This group represented 17 per cent of those over the age of sixty-five, compared to 5.8 per cent in the forty-five to sixty-eight-year age group, and 1.3 per cent in the under-forty-five-year age group. Therefore, old age is a phenomenon to be enjoyed by the majority and not the minority; we have longevity, but not associated with health, vigor and youthfulness.

It is this particular group of 2.1 million people, chronically involved, who will require the rehabilitation programs that are so necessary at the present time. In this particular group with considerable use of medical and surgical correction, the concept must be developed that many of these patients are incurable and irremedial. However, most conditions present in older people we have found to be remedial to a varying extent even if not possible to cure. Hence a workable classification as outlined by Dasco[4] is appropriate: (1) Restoration of the chronically ill without signs of manifest disability such as cardiac and pulmonary disease. (2) Restoration of the obviously handicapped, such as hemiplegia, neuromuscular diseases, arthritides, amputees and fractures. (3) Restoration of the elderly person who is not obviously ill but whose physical fitness is impaired.

The significant and long term illnesses affecting the aged, the degenerative diseases, have been classified by Stieglitz[11] into: (1) The circulatory diseases consisting of the myocardial diseases, severe hypertensive arterial, and arteriosclerotic types such as cerebral, coronary, renal, pancreatic, and extremities (gangrene and thromboangiitis). (2) The metabolic types such as diabetes, gout and osteoporosis. (3) Malignancies which are incurable and irremedial? (4) The arthritides.

With this complexity of involvement, the limiting factors of rehabilitation are self-evident. In generalizing, we will show the concept that each case must be treated on an individual basis with extreme caution, with common sense and realism.

Limitations of Rehabilitation Medicine

When the pathologic processes of aging are more rapid than the rehabilitation efforts, the self-limitation of professional energies is indicated. Specifically, the limiting factors are: (1) *Medical complications* such as acute heart failure, intracranial bleeding, malignancy and severe hypertension. (2) *Senility,* that is, the physiologic process is more important than the chronological age. Hence an eighty-year-old amputee in good physical and mental vigor might be more amenable to rehabilitation with a prosthesis than a fifty-year-old who has had deterioration of the brain. (3) *Loss of learning.* This would be in the receptive as well as in the expressive senses, that is, they do not remember instructions and technical demonstrations. (4) *Motivation* (both internal and ex-

From the Department of Physical Medicine and Rehabilitation, Jewish Home for Aged, Detroit, Michigan. Read at the meeting of Rehabilitation in Geriatrics, New York Physical Therapy Association, New York Coliseum, March 8, 1957.

Dr. Newman is Consultant in Physical Medicine and Rehabilitation, Jewish Home for Aged; Attending Physician in Physical Medicine and Rehabilitation, Sinai Hospital, Detroit, Michigan.

ternal). The former must be mobilized or stimulated by external motivation. To obtain maximum motivation, the patient must shift his awareness from disability to his current assets. The remaining musculature, the intellectual capacity, the interpersonal relations, and associated attributes are the things on which his attention must be centered, rather than his disability. This means a combination of effort on the part of the physician, the therapist, the family and friends. The family physician probably becomes the greatest rehabilitation expert by virtue of his association with the family problems and the patient's personality.

Objectives in Rehabilitation

The certain arbitrary grades developed to provide a happy and useful life within the limits of the disabilities and capabilities of the older persons are[9]: (1) Perform ADL (activities of daily living) and return to the former vocation. (2) Perform activities of daily living, but he cannot return to his former occupation; he requires vocational retraining. (3) He can perform activities of daily living in a slow and labored manner, due to the lack of speed and coordination of the extremities. He is limited to working in a sheltered work shop or in a special situation. (4) He is able to perform self-care, ambulate, is unable to use extremities in elevation, such as curbs, ramps, or public conveyances. He is homebound unless he has special transportation provided. (5) He can perform most self-care, ambulate in the hospital or in the home, but is unable to carry on elevation activities. (6) He is able to provide only self-care to a limited degree either in bed or on a chair.

With the outline of the limitations and the objectives in rehabilitation medicine, we are then prepared to discuss the individual diseases. The following discussions will apply specifically to the problems created most commonly in the geriatric patient, and the efforts made to correct or modify the functional problems therein.

Inefficiency of Respiration—Hypoxia

Habitual under-ventilation of the lungs can exist in older people because of the aging musculature, and the lack of stimulation of the central nervous system through proper oxygenation. There is considerable physiologic evidence that the vital capacity responds dramatically to breathing exercises, and there is marked improvement in the general condition and attitude of an aged individual.

Physical activity in the human being is of two types with reference to oxygen requirements. In the first type, rapid exertion such as is associated with physical competition in sports, and in violent exertion associated with saving the life, there is only scanty oxygen provided for this tremendous chemical process of muscle contraction. Most activity is on an anaerobic basis, and occurs as a result of the chemical and tissue enzyme system which is inherent in all muscle activity.[7] This is only a rapid and temporary process lasting for a few minutes, and uses up especially stored energy in a manner similar to a rocket using its special fuel without the interaction of oxygen in the air.

Second, there is a type of oxygen activity associated with regular work, that is aerobic activity. Most of our physical activities fall in this category, and require an adequate amount of oxygen to be functional. This means the ordinary respiratory process of bringing the air into the alveoli of the lungs, having the gaseous interchange at the capillary level, the dissolving of the oxygen into the blood stream by means of hemoglobin, and the release of the carbon dioxide into the alveolar spaces. The mechanism is both endogenous and exogenous involving musculature activity associated with the respiratory muscles, and pH stimulation of the central respiratory regulating mechanism in the medulla. It is in this type of oxygenation that the older person fails, because of a primary lack of adequate physical effort in inspiring, and the secondary lack of oxygenation of the medulla. This results in a lowering of the stimulation peripherally affecting the secondary muscles of respiration.

All body tissues are susceptible to hypoxia. In order of susceptibility may be listed the brain with its frontal lobes, pyramidal cells and the premotor cortex, the medulla with its vital centers, the spinal cord, the important visceral organs such as the heart and its myocardium, the pulmonary tissue, and the endocrine glands, especially the adrenals and pituitary. The secondary effect of this hypoxia in the frontal lobes is to reduce the effectiveness of those characteristics associated with the civilized mind, that is, the loss of memory, reversion to an infantile pattern, becoming psychotic, becoming senile and the like. When the

pyramidal cells are affected in the premotor cortex, both the inhibitory and facilitory mechanisms are impaired, with resulting spasticities, lack of coordination, and absence of normal muscular activity characteristic of the average person. Medullary effects result in diminution of sensitivity of the respiratory center with its associated hypoxia. When the spinal cord is affected, the internuncial cell pool fails to function on an automatic basis, and many of the automatic spinal reflexes are impaired. This may be associated with frontal lobe involvement. For this reason, so many older people are subjected to fatalities so characteristic in crossing streets in traffic. Affection of the pulmonary and cardiac tissues by hypoxia results in the associated development of emphysema.

What is the basis for hypoxia in the aged? It is a well-known finding that a patient in the supine position has a reduction of the vital capacity by as much as 10 per cent. For many reasons, this same type of vital capacity occurs in the aged in the upright position. Many types of pulmonary ventilation studies have been carried out, such as those by Starr[3] (the anoxemia test associated with the electrocardiographic changes), and the exercise tolerance test. None of these have proved useful in our particular studies. We have found that the study of the vital capacity, the ventilatory index, the maximum breathing capacity, and a breathing reserve have given us the greatest amount of information. We have confined our studies in this respect to the vital capacity by the Bennett respiration ventilation meter.[2] In this manner, we can check the vital capacity as well as the minute volume of respiration for any normal quiet breathing. The average finding has been that older patients have approximately 50 to 70 per cent of the vital capacity expected from the normal. Hence, these patients are already at their maximal breathing ability and any functional demands placed upon them would add an acute to chronic hypoxia. This simply means that the average old person sitting in a rocking chair or walking around the house is at his maximum respiratory ability. Any functional demand such as climbing stairs, crossing the street under duress, driving an automobile, would add this acute hypoxia to an already chronic hypoxia, with its associated detrimental effects in nerve tissue and viscera as already described.

In prescribing a routine of treatment, we find that the breathing exercises are the most satisfactory method of approaching this problem. The exercises are simple, they are based on physiologic study, and they affect primarily the tissues involved in the breathing mechanism. We determine simply if the insufficiency is in the inspiratory or the expiratory effort. This may be due to an abdominal spasticity or atony, or may be due to a disproportionate movement of the two halves of the thorax. Therefore, in developing the exercise program, the efforts are directed toward the maximal excursion of the rib cage, and improvement in diaphragmatic function; these are incorporated into the daily activities of the older person.[8] In the more technical phases, mechanical devices such as intermittent positive pressure breathing have been used.[1] Their value is still to be proved over the simple methods used for training patients in proper breathing hygiene. They are useful in hospitals, but not necessarily in the home or in the physician's office.

Therefore, we may say that in a patient requiring physical rehabilitation, it is just as important to improve the pulmonary function by specific retraining, which in turn produces greater exercise tolerance. Improvement in the psychic function (such as is indicative of the internal oxygenation) is indicated by the improved outlook on the physical condition, the spontaneous cheerfulness, the greater emotional stability, the increased attention span, and the increased motivation for self-help. In any total rehabilitation program, whether the problem is hemiplegia, amputation, arthritis, or a fracture, it is inherent to include the breathing exercise program in the total management of the individual.

Degenerative Joint Disease

The objectives of treatment can be alluded to as: (1) the relief of symptoms and (2) elimination of factors leading to further joint damage. The most usual symptoms present are those of pain, due to fibrous tissue, elevation of the periosteum and spasm of the muscles. Second, the weakness of the joint leads to muscle atrophy, to muscle weakness and the limitation of the range of motion of the joint. The program of treatment is for relief of symptoms of pain and weakness, to increase the range of motion where possible, place the patient on a reducing diet, and utilize whatever accessory measures are useful. These may

consist of shoe correction, corsets, various types of braces, canes, crutches, and even properly prescribed wheel chairs. In the latter instance, a properly designed wheel chair would consist of eight-inch casters, a regular adult size chair with large wheels of 24 to 28 in., brakes where needed, swingaway foot rests, posterior heel supports, removable desk arms, a zippered or removable back, and commode attachments, where necessary. Therefore, a total program requires a distinct knowledge of mechanics. For purposes of discussion, osteoarthritis of the hip will be the primary disease presented under degenerative joint disease.

Chronic arthritis of the weight-bearing joints produces changes in the entire body mechanism, and results in musculo-skeletal inadequacy and failure. Since there is no specific etiologic agent responsible, there is no specific treatment for osteoarthritis. Hence the only approach to this problem can be on a basis of rehabilitative medical treatment. Not only is the goal to eliminate pain and restore careful function of the joints, but also to correct the disturbed body mechanisms and alignment. Surgical failures in osteoarthritis of the hip are common and may be due to the failure to correct the associated body alignment, especially the static condition of the lower spine and pelvis. Since the tissues do not compensate postoperatively for the changes that have occurred in hip joint surgery, more rather than less pain is produced. Secondary effects of spasm, muscle ischemia, and disturbed posture and alignment result.

Many types of operations have been performed: (1) fusion of the joint, (2) subtrochanteric or intertrochanteric osteotomy, (3) arthroplasty, whether it be cup or otherwise, (4) the prosthetic appliance, whether it be the acrylic or the metal implantation, (5) obdurator neurectomy and (6) total capsulectomy. All tend to fail because associated parts of the skeleton in the arthritic process are not made to compensate for the surgically-induced joint changes.

In the study of the pathologic physiology, the deformity that is produced is mainly related to etiologic factors. It is characterized both by subluxation and contracture. When the subluxation occurs, there is a riding high of the trochanter. This interferes with gluteus medius and iliopsoas function, and produces elevation of the pelvis. When a contracture occurs, it involves the flexors and extensors, the rotators and adductor muscles of the hip. The clinical picture is a positioning of the leg similar to that of hip fracture. The second major change occurring in the pathologic physiology is that of venous congestion and edema. This results primarily from the poor oxygenation of blood, slowing of circulation and hemoconcentration eventually resulting in phlebostenosis, then producing multiple thrombi. The end result is the narrowing of the acetabular cavity and osteophytes. When surgical procedures are carried out to remove these foreign bodies, the major problem is still present in the hip joint and its associated mechanical alignment in the body. A third factor in pathologic physiology is the synovial fluid. Its origin is not within the scope of this discussion. Suffice to say, muscular activity produces an acceleration of joint lubrication and nutrition. This is most evident when extensive joint function is prevented by arthritic changes resulting in the development of an insidious process of deterioration. How well we know the reaction of the older person who first arises in the morning with his stiff and jelled joints. When functional activity occurs, such as ambulation, finger movements, and joint motion, an ease and smoothness of coordinate action is evident. Perhaps activity is as important in formation of the synovial fluid (which acts as a lubricant) as is the actual production of the fluid itself.

Observation of the weight-bearing mechanism in the older person demonstrates changes characteristic of the degenerative mechanism. After the age of fifty, the act of elevation of the pelvis above the horizontal becomes more difficult. The head of the femur becomes more deeply inserted into the socket during nonweight-bearing. In the younger person the head of the femur is deeply inserted into the acetabulum during physical activity and is outside by two-thirds of its circumference during nonweight-bearing. In the older person, when the femur becomes deeply inserted, the functional activity produces a wear and tear which is characteristic of flattening of the head, shallowing of the acetabulum, and formation of the intrarticular osteophytes.

Conservative management of this particular type of condition is by means of bed rest and a laceable elastic brace. The antigravity position has produced no ill effects, such as pulmonary congestion or cardiac weakness.

Elevation of the foot of the bed is kept permanently at 3 to 6 inches. Positioning serves to correct the lumbar lordosis. The antigravity effect results in a reduction of venous congestion and edema. In many of the aged with clinical syndromes resembling root compression, the bed rest serves to reduce the venous congestion and edema at the intervertebral foramina. Laminectomy performed on this type of patient on the basis of erroneous clinical diagnosis results only in momentary relief; recurrence of sciatic pain is even more intense on resumption of physical activity. Myelography frequently reveals disc bulging or extra-articular deformities, and further leads to laminectomy. Electromyography, properly conducted, fails to reveal root compression, and can save unnecessary surgery.[5] Additional measures require the use of bed boards to firm the mattress. Under the direction of the physiatrist, carefully supervised exercises are performed in the prone and supine positions. These consist of flexion and extension, abduction and adduction, internal and external rotation at the hip joint: assistance, free or resistance may be added. All activity is preceded by local heating, either in the form of radiant heat lamps, hot packs, deep tissue heating or ultrasound. Bed rest is enforced for ten to fourteen days.

An elastic laceable brace is constructed to be attached to the body, and encasing the involved side.[6] This brace resembles a regular lumbrosacral corset, and contains an extensor and flexor strap. (The latter serves to reinforce the weak iliopsoas muscle). The purpose of the elastic appliance is to reduce edema around the joint by pressure, to help eliminate venous congestion by applying a continuous mild massage, to add to the strength of the degenerated fascia, to force the joint to carry out its function in the plane of locomotion, and to give an incentive to a coordinated muscle contraction through resistance by means of the gluteal strap.[6] Corrective orthopedic shoes with arch supports and medial or lateral elevation, Thomas heels, et cetera, should be fitted.

Hemiplegia

The stroke is the most common occurring disabling disease of senescence, affecting approximately 1.25 million old people annually. However, 90 per cent of these individuals are able to develop a pattern of ambulation, self-care and continence. The most important approach to these individuals is in a proper evaluation of the physical disability, the emotional status, the ability of learning and of motivation.

The *objectives* in any program are to prevent deformity, treat deformity when it does occur, retrain in ambulation and elevation, retrain in terms of activities of daily living, and working with both the affected and unaffected side, retrain the affected side to the maximum of its functional capacity, and to utilize speech retraining. The problem of vocational training is not usual in individuals in the older age group. Reference to detailed treatment of hemiplegia by Newman at al in the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, 1949, is available. Suffice to say, the program is divided into two major spheres: (1) *the acute phase* which is mainly medical, occurring in the hospital and (2) *the rehabilitation phase* which occurs partially in the hospital, but mostly in the home, and in the physician's office. In the acute phase the most important consideration is positioning in bed—the shoulders are abducted, the elbows are extended, and the wrists and fingers are extended. In the lower extremities, one should prevent the marked external rotation and flexion of the hip, the flexion of the knee, and the foot drop. In the rehabilitation phase all measures of physical therapy consisting of muscle re-education, strengthening, gait training, ambulation, and elevation activities are utilized. In occupational therapy, functional re-education is utilized, which includes the fine and gross coordination, muscle strengthening and the like. At this time, prevocational testing can be carried out to determine the individual's effectiveness for the future. Most physiologic techniques for muscle reduction are used: Reinforcement methods, and afferent proprioception utilizing the Sherrington pattern of gravity and antigravity muscles will be described in a future communication.

In terms of appliances, bracing should be early to permit ambulation. The usual short leg double bar upright brace with a posterior 90 degree stop, as in the Klenzak joint, is most commonly used. Occasionally, a double bar upright brace with the pelvic band aids the patient with a weak quadriceps. More elaborate bracing is never needed in a hemiplegia. Following parallel bar training, the simple pattern of reciprocal ambulation can be carried out by using two kitchen chairs. In our own clinical setup, the close cooperation of the

Office of Vocational Rehabilitation and the Detroit League for the Handicapped permits early vocational testing and the institution of training program. It is not uncommon for these hemiplegic individuals to recover sufficiently for returning to useful and usual employment.

In the treatment of the older age amputee, consideration is given to any increase in functional capacity by use of a prosthesis. Upper extremity prostheses are usually not suggested nor indicated in these individuals. BK devices are almost universally used in the aged. Suction socket prostheses for above the knee amputation are preferred to the conventional types with pelvic bands. The effect of the suction socket improves rather than deters the limited circulation in this type of a stump. It is much easier to teach the suction socket patient ambulation, and better walking habits are quickly established.

Experience has proved that over 80 per cent of all rehabilitation procedures may be carried out by the family physician, or the physiatrist responsible for the patient's primary medical care. In the latter instance, the internist who usually sees these patients can help develop the rehabilitation procedure as an integral part of the total medical care. Specialized centers can care for the severely disabled, and would represent only 15 per cent of total rehabilitation effort.

While rehabilitation is an integral part of geriatrics, the treatment of disability in terms of the patient must never be forgotten. The patient needs the human touch and the inspiration of his personal physician or medical advisor. The motivation many times comes from this source alone. The family physician with the thorough knowledge of his patient, his nutritional background, his environment, his previous economic responsibilities, is the foundation upon which a successful rehabilitation program can be developed. Medical care does not become complete until the patient has been trained to live and to work with what he has left. "Rehabilitation is every physician's business, not merely that of the specialist in physical medicine and rehabilitation, but of the physician in general."

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16861 Wyoming Ave.
Detroit 21, Michigan

CONTROL OF STAPHYLOCOCCUS INFECTIONS

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Half of Michigan's Citizens Now Subscribe to Blue Shield

The circumstances surrounding Blue Shield's birth two decades ago are well known to most of us, and even though there has been little change in the plan's scope or purpose since that day, the public has been well served for those twenty years by Blue Shield and its sponsor, the medical profession.

In the past year, however, aware of new demands being made by changing socio-economic conditions, the Michigan State Medical Society (1) has re-surveyed the needs and wants of the public and profession; (2) has formulated from the results of that survey a statement of principles, setting forth the concept of and the criteria for prepayment-type plans; (3) has endorsed therewith a new Blue Shield contract and solicited participation of physicians with MSMS for Blue Shield; and (4) has set up special "review" committees to assure a continual modernization of Blue Shield.

This has been a studied effort. Thousands and thousands of both dollars and man-hours have gone into this forward march of progress.

Now is the time to say "Thank You" to those many dedicated members who have sacrificed time from their practice and given up their treasured moments of leisure, in order that we—you and I and the people of Michigan—may continue to have pre-paid medical care plans serve us better.

Words are nice but the best way we can say "Thank You" is to support and to participate in the plan they have evolved. Imperfections in the contract? Certainly, it's the result of human hands. But it's the best there is—here, or any place else in the nation.

Let's make it go—FORWARD.

Geo. K. Slagle.

President, Michigan State Medical Society

President's



Message

Editorial

Chicago, Illinois
May 2, 1949

Wilfrid Haughey, M.D., Editor
JOURNAL OF MICHIGAN STATE MEDICAL SOCIETY
Battle Creek, Michigan

Dear Doctor Haughey:

The devotion of this issue of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY to the affairs of Michigan Medical Service indicates a realization of the relationship between Blue Shield and the practice of medicine. The time is past, if indeed it ever existed, when the responsibility of the physician is limited to providing medical care. He must now offer a solution for the economic problems of medical care. He alone can do this without revolutionizing the pattern of medical practice which has brought the world capital of medicine to the United States.

In this evolution of medical thought, Michigan has been in the forefront. This is why Michigan Medical Service was the first Blue Shield Plan to reach an enrollment of a million members, and why it is regarded as a keystone of the entire Blue Shield structure.

With admiration for both the Michigan State Medical Society and Michigan Medical Service, I am

Most sincerely,
PAUL R. HAWLEY, M.D.
Chief Executive Officer
Blue Cross-Blue Shield Commissions

TENTH ANNIVERSARY

This number of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY is for the tenth time devoted and dedicated to Michigan Medical Service. This issue will contain messages and reports, statements, economic and financial analyses sufficient to give our membership an accurate and comprehensive understanding of what Michigan Medical Service is, what it has done and what, through the recent action of the Michigan State Medical Society, it proposes to do in administering the present programs and instituting the new comprehensive plan adopted by the House of Delegates at the meeting in September. At that time, there was a completely new statement of principles, ambitions and intentions guaranteed to the public. Medical services were outlined and remodelled to make the new Michigan Medical Service comprehensive program as completely expressive of the wishes of our public and of the Society as it was possible to do.

June, 1949, was an especially appropriate time to institute this policy of devoting a particular number of THE JOURNAL to Michigan Medical Service. It had been a year of tremendous achievement.

From March 29 to April 1, 1948, the Blue Cross-Blue Shield administrative boards, including the membership as well as the administrative officers, had held the first joint meeting of the two commissions in Los Angeles. The two groups had discussed and settled upon the policies and had demonstrated the national appeal of the new concept of pre-paid medical care. Almost every month during that period from April, 1948, to June, 1949, there had been special items, accomplishments, and editorial comments which merited mention in THE JOURNAL. Michigan Medical Service at one time had been over half a million dollars in the red and had prorated the payments to its members for a short period. Adjustment of rates and the installation of a $5,000 income level contract, together with the rapid increase in membership, had proven most satisfactory. All indebtedness had been wiped out and a surplus established. The prorata had long since been repaid and Michigan Medical Service had reached one million membership.

The cover of this particular number of THE JOURNAL represented Major Gen. Paul R. Hawley, national executive of both Blue Cross and Blue Shield Commissions, presenting a complimentary plaque to Robert L. Novy, M.D., President of Michigan Medical Service, with Howard Schriver, M.D., of Cincinnati, the National Blue Shield Commission President, and Jay Ketchum, the Executive Director of Michigan Medical Service as witnesses.

The June number of THE JOURNAL has been dedicated to Michigan Medical Service each year since this original number in 1949, and this present issue is number ten. Instead of being dedicated to the acquisition of one million members and a very laudable financial and economic condition (Michigan Medical Service now has 3.75 million members which is a significant increase), this issue is dedicated to the nation's first completely modernized and fully comprehensive offering of prepaid medical service developed from the principles expressed unanimously by the House of Delegates in September. Certain policies, rates, principles

and programs have ben prepared and submitted to the insurance commissioner. As soon as he has approved the final figures determined on listed item coverage, the exact rates to be paid to the doctors and the cost to the patient will be available in published form. Under the new comprehensive program, a basic policy is offered which may be modified by subscriber groups to cover any conceivable desires which those groups may intimate.

Michigan Medical Service has always been an expression and an entity of the Michigan State Medical Society, the same as any other committee or designated group, as the Council, the scientific sections, committees and personnel, all working together to establish the one unit. The Michigan State Medical Society includes all branches of the profession. This must be so because the profession practicing under the Hippocratic oath has a duty to make available and render to our public the very best medical and surgical attention possible. Groups must be governed by a properly organized administrative body. The Michigan State Medical Society is the governing group. It includes every member of each county medical society, the county societies being components of the State Society, governed by the House of Delegates which is elected by the counties. The House of Delegates has set up a Council to act in its stead and in the interim between its regular and special meetings. The members of this Council are elected by the House of Delegates and are responsible to them. In this way, the socio-economic problems of the Society have long demanded and received special attention.

In the decade of the thirties, the problem of obtaining voluntary medical care became so enormous, so overwhelming, but so absolutely demanding, that the House of Delegates through its various committees and by delegation of authority, created Michigan Medical Service, a corporation under the laws of the State of Michigan. Michigan Medical Service was delegated to accomplish certain specified acts and was responsible to the House of Delegates and the will of the profession. The Board of Directors, the governing body of Michigan Medical Service, consists of a certain designated proportion who must be doctors of medicine; others representing the public and the hospital association. These delegates are all elected by the House of Delegates sitting as the membership of Michigan Medical Service. Michigan Medical Service is just as integral a part of the Michigan State Medical Society as The Council; in fact, the two bodies are very much intertwined by overlapping membership.

THE BEGINNINGS

The Blue Shield program in Michigan was the outgrowth of many years of study by many committees in various places. The economic and socio-medical problems, including our extended depression, were much more demanding than the purely medical care of our patients. Some of the older members of the Society will remember conditions as they were. Fully 60 per cent of the present practicing physicians in Michigan have no personal knowledge, and many of them no conception of the situation which faced the profession in the thirties. Only a small percentage of the population were working, and they at much reduced wages. Some of the economically minded members conceived the idea that if people could pay for their medical services like insurance, conditions might be better.

The Michigan State Medical Society had appointed a "Committee on Survey of Medical Services and Health Agencies" at the September meeting in 1931, and an extended report was made at the annual session in 1933. This report was accepted, but the proposed "Mutual Health Service" which was recommended lost by one vote. The Society had expended $20,000. The State Society "Committee on the Costs of Medical Care" continued work, and active progress was made in other areas.

A Battle Creek Academy of Medicine and Dentistry had been established in 1933 and was in operation, dealing on all financial matters with the city and county—in fact with four official relief departments. The Academy, at its annual meeting December 10, 1934, among the reports from the President, stated:

> "Regarding the set-up for Mutual Health Service, a committee was appointed to study the plan. The Academy was selected as the unit to first conduct an experimental test of the proposed project. It is now held in abeyance awaiting proposed legislation on the subject of health service insurance."

(The group had expected to establish the program July 1, 1934, but was stopped by information from MSMS headquarters as to proposed legislation.) At that meeting, Mr. Victor Blaine,

County Relief Administrator, introduced Dr. William Haver, University of Michigan Professor of Economics and State Relief Administrator, who spoke about the "Michigan Relief Problem." He said:

"Approximately 210,000 families or approximately 830,000 people are on relief in Michigan. This constitutes 17% of the total population. These people are located throughout the entire state. Six counties have over 40% of their population on relief, thirteen counties with from 25% to 40% on relief, and ten counties with less than 10%. Thirty-two per cent of the people on relief are skilled or professional people, and 68% are unskilled laborers."†

Michigan Medical Service and Blue Shield programs were established primarily for the relief and care of the lower income groups of people. The schedule was set at $2,500 per year income, which at the time included 85 per cent of all employed people in the state. Many of our doctors have suggested that we should never have stepped beyond that concept of care and should have refused to insure or to accept people with over the income limit. Such was the original intention, but the sales problem and the difficulty of determining the income limit very soon changed that.

In the newest comprehensive program which is now being constructed, that $2,500 income limit is being preserved because at the very latest figures, 22 per cent of the employed people of the state are still within that income limit. The beginnings of Michigan Medical Service and the other Blue Shield programs were in the desperate attempt to find a means by which the patients, the public, could secure medical care and could pay for it at a reasonable rate. That policy is still activated, and for those of this group the program is still one of a need for relief services. Such is the need and the reason why participating doctors are necessary to care for the under income groups.

APPRECIATION

The Editor expresses his gratification to Mr. L. Gordon Goodrich, Assistant Executive Director of Michigan Medical Service, and to L. Fernald Foster, M.D., President of Michigan Medical Service, for their invaluable help and co-operation in presenting the material in this number of The Journal.

†Quoted from the *Bulletin of the Calhoun County Medical Society,* January 8, 1935.

STAPHYLOCOCCAL INFECTIONS IN INFANTS

(Continued from Page 852)

organisms can be minimized by careful washing of the entire body with liquid detergent containing 3 per cent hexachloraphene. Scrupulous attention to cleanliness of the hands, particularly under the nails, and of the skin around the nasal orfices is also important to prevent spread of infection from infected mucous membranes or from open lesions.

Summary

Staphylococcal infections in young infants, particularly in the early stages of an epidemic, may be so mild that the true nature is not suspected.

Often there is a prolonged latent period between colonization of skin and mucous membranes by staphylococci and the clinical manifestations of disease. Thus the possibility of hospital-acquired infections should always be considered in pyogenic infections of infants.

When there is a possibility of hospital origin of infection, penicillin is not the drug of choice for treatment. Effective antimicrobial treatment of staphylococcal infections depends upon culture and antibiotic-sensitivity characteristics of the strain isolated from lesions.

ANNUAL MEETING TO BE FEATURED IN GRAND ROUNDS TELECAST

A 90-minute closed circuit television program emanating from the AMA's annual convention in San Francisco will be transmitted to physician audiences gathered in Boston, Chicago, Cleveland, Kalamazoo, Philadelphia, New York and Syracuse. The program will be presented Wednesday, June 25, from 6:00 p.m. to 7:30 p.m., PDT, by the Upjohn Company in co-operation with the American Medical Association. Physicians attending the convention will be able to view this program in the Civic Auditorium area.

The first thirty miuutes of the telecast will be devoted to a report on outstanding highlights of the scientific meeting, including excerpts from some of the papers and a brief tour of the Scientific Exhibit. The remaining sixty minutes will be in the form of a Grand Rounds clinical session on the subject of diabetes. This portion of the program will originate from the University of California School of Medicine under the chairmanship of Dr. Peter H. Forsham, professor of medicine. Patients illustrating some of the common problems encountered in diabetes will be presented. Attention also will be given to recent progress in the management of the diabetic patient and the role of oral hypoglycemic agents, their proper use and the details of their clinical application.

Michigan Blue Shield

Past, Present and Future

L. FERNALD FOSTER, Ph.B., M.D., President

Part I—Beginnings

Like most history-making movements, there's no precise date to set as the beginning of voluntary medical prepayment. There is just no way to say: "This is the day voluntary prepayment began."

You *could* say March 1, 1940, when Michigan Blue Shield opened its doors to begin initial enrollment of the pioneer plan for medical prepayment that was directed and underwritten by the Michigan State Medical Society and the doctors of Michigan.

You *could* say it, but it isn't the actual fact. It is a misleading date. Like all so-called historical dates, it does not truly tell the story.

It is *not* in any real sense the date at which to begin the story of voluntary prepayment. By and large, specific dates like this are only convenient pegs on which to hang history. To use March 1, 1940, as the arbitrary date for the beginning of voluntary medical prepayment is like beginning the story of World War I with June 18, 1914, the date on which Archduke Ferdinand of Austria was assassinated at Sarajevo.

World War I did start in the physical sense on that day. Voluntary prepayment in Michigan started in the physical sense on March 1, 1940. But the cause d'etre—the reason for it—in both cases stretched back historically many years.

In neither case was there a day and a month and a year. Voluntary prepayment like the basic causes of World War I, or any other historical event of so broad a scope, stemmed from many sources and extended over a long period of time.

Plain fact of the matter is that the stirrings of medical thought that eventually culminated in a positive prepayment program in Michigan Blue Shield in March of 1940, began away back in the late 1920's.

The first glimmerings of the need for a new approach to medical economics began in that era of the 1920's which marked the beginning of tremendous advances in medical science. These advances were necessarily sending the cost of medical care up.

The doctor was finding at his disposal more and better methods of treatment and diagnosis for more and more diseases. But these meant of necessity greater cost to the patient.

A study of medical history shows that the Michigan State Medical Society was among the first to recognize that this was the nub of a growing problem. At a time when this was a cloud in the medical horizon "no bigger than a man's hand," MSMS was aware of its eventual implications and initiated one of the first real studies of medical costs.

The matter of rising medical costs became much more acute by the early 1930's. The twin impact of the necessarily rising cost of adequate, better medical care and a depression that saw a sharply falling income among practically all families was self-evident to Michigan medicine.

More and more people were simply not able to pay for medical care out of income, or in most cases out of modest savings already being eaten into by bare necessities. The doctor was faced with the anomaly of more and better tools to work with, but an increasing number of people who were unable to pay for the care he could give.

The political climate had changed rapidly in this period of the early 1930's. The economic and social philosophy swung sharply in the direction of government paternalism—of necessity in many cases, to be fair—but fair or not, it was an inescapable fact. This climate lent itself to the possible institution of a new type of medical practice—a renunciation of all that medicine had stood for for centuries. In short, government-financed, government-directed and government-controlled medicine.

This was the fact. The Council of MSMS realized that unless medicine itself developed some kind of solution for helping the people finance their medical care, the traditional private practice of medicine and the traditional free patient-physician relationship was going to go by the boards by default.

Now there was the instrument of longstanding and tradition—insurance. But commercial insurance companies at the time would have none of it. They did not want to enter the untried field of insuring medical costs. Their reasons? They said there was no actuarial data to start from and besides medical care did not seem to them like an insurable item. They wouldn't touch insurance against the cost of medical care with a 10-foot pole.

This left medicine only two choices:

1. Succumb to the rapidly developing plans in Congress to nationalize both the financing and the administration of medical care. Governmental medicine. Socialized medicine. National Health care plan. It had a lot of names, but it all added up to the same thing.

2. Come up with a program of their own through their own organization—the State Medical

Society. This program would have to preserve the private practice of medicine, free choice of physician and at the same time provide a means whereby the individual could finance the cost of his care.

This, as you can see, was easier said than done. To many in the medical profession at the time it constituted a "Hobson's Choice." In their eyes, you were "damned if you did and damned if you didn't."

It was an honest and completely logical stand that brought forth violent debate within the profession. The crux of it was whether medicine had any business getting into the field of "business," into economics by underwriting a prepayment program of their own.

"This," they argued, "was the field of the commercial insurance company. Medicine should be concerned only with the limits of the profession of rendering care."

Honest as their contention was, facts have a way of making themselves felt and even basic principles must be altered or changed to meet them. Otherwise, the whole institution upon which they are based comes tumbling down about the ears of those who will not change.

Michigan medicine, as events proved, made the choice. They made the change that put them in "business"—the prepayment business. But, as you will see, it was "business" on their terms that actually safeguarded the very principles of the practice of medicine they desired to preserve.

Very early in the situation the Special Committee on Medical Economics of the Michigan State Medical Society established the following set or principles which would be included in any plan developed for a medically-sponsored prepayment program:

1. Free choice of physician by the insured.
2. Limitation of benefits to medical services.
3. Control of medical *service* benefits by the profession.
4. Exclusion of individuals or organizations that might engage in health insurance for profit.

After long consideration, extensive study and real soul-searching—these principles were the ones on which several years later Michigan Medical Service was created in 1939 and went into actual operation in 1940.

Actually, as events later proved, the decision of the Michigan State Medical Society and Michigan's doctors to enter this unchartered field of medical prepayment was the *only* sound decision that could have been made.

For by doing it themselves, by creating the ground rules and maintaining control of the program, medicine was able to control the standards of care—to see that prepayment in no way affected the quality of medical practice nor its administration.

In looking back, the doctors, by taking the bull by the horns, by going ahead on their own, avoided the pitfalls that turning control over to a lay group—a "business" group if you will—could have led to. For no matter how good the intentions, there is no denying that in the final analysis only the doctors could be in a position to determine how best to co-ordinate the best in medical practice with a program for financing the cost of medical care.

So you see that March 1, 1940, was by no means the starting date for voluntary medical prepayment. Michigan Blue Shield was not created in haste and in desperation out of thin air. It was, in fact, the result of years of earnest consideration and study by the best minds in Michigan Medicine.

But this *is* important. By 1939—the date of the birth of Michigan Blue Shield—medicine had reached a crisis that had been building up for a decade. The climate was ripe for the government stepping in if medicine itself had not been prepared to step into the breach at that time with its own voluntary prepayment program.

And medicine would have not been able to do so if it had not been for the fact that for the preceding 10 years medicine had been aware of the problem, had come to grips with it and had reached certain conclusions through thorough, open discussion and laid to rest most of the basic objections to medicine's "getting into the insurance business."

It almost goes without saying that the ten-year period between 1930 and 1940 was the most important in terms of preserving the practice of medicine as we knew it then and know it today.

Without that ten years of development in economic thinking by medicine, it could never have come up with a workable voluntary prepayment program. And if it had not, there would have been government medicine of one form or another. The facts of the situation were inescapable.

And it was no accident that Michigan medicine came up with its voluntary prepayment program at this time of crisis.

During the 1930's Medicine, whether it was completely aware of it or not at the time, had adopted a measure of social responsibility—responsibility for making its growing services available to the public. These were services which without some effective method of group prepayment—were beyond the ability of the average person to finance.

It was, as we look back with the perspective of time, a new era into which Michigan Medicine was leading the profession. It was an era in which it became abundantly clear that the doctor's responsibility was no longer confined to the pure science of treating the patient. Medicine was learning that the doctor—if he were to survive and retain his historical professional and individual

status in a changing social and economic climate—had to enter the field of medical economics. And it was a medical economics that he and his professional organizations had to devise and direct.

Once the necessary step had been taken—once the transition was made, there was no turning back. The "old days" of professional aloofness from matters economic in medicine were gone forever.

Medicine was in the field of practical economics to say. The measure of whether it was to retain the basic structure of the private practice of medicine was increasingly dependent on Medicine's ability to continue to underwrite and direct its own prepayment program in such a way that it would serve the public better than any alternative method.

Such a program had to be dynamic, ever-changing and developing to meet new needs, new demands and new problems. If required—and will continue to require—the constant and diligent attention of all in the profession.

One might say that March 1, 1940—the birth of medically-sponsored, nonprofit Michigan Blue Shield—was in a sense the day of commitment to this principle that Medicine henceforth must make practical medical economics their continuous concern.

Part II—Growing Pains

(1940-1950)

The basic principles which formed the cornerstone of Michigan Blue Shield in its debut into the field of prepayment 18 years ago remain firm today. Benefits, administration, mechanics and depth and breadth of coverage have changed considerably, but the key principles of *service benefits,* nonprofit operation, community-wide rating and basic control of the Plan by the medical profession through MSMS remain unchanged.

Now it would be nice to report that from the day Michigan Blue Shield opened for operation it met with instant and complete success, 100 per cent support by Michigan doctors and overwhelming public acceptance. But unfortunately, that's not precisely the way it happened.

Truth is that the first two years were hectic. Looking back, most of those connected with that early period agree that it was a miracle that Michigan Blue Shield survived its early growing pains and multitude of problems. It *was*—a miracle, but it just didn't happen. It was a contrived miracle—contrived through the unrelenting efforts of a few stalwarts in the medical ranks who would not let it fail and a mute determination in the hearts of the majority that somehow the program must succeed. It was this combination that wrought the miracle.

In retrospect it is not difficult to diagnose the troubles of those early years. First of all, there was absolutely no actuarial data to go on in pricing the program. Secondly, by and large, the doctors were far ahead of the public in the broad spectrum of benefits one of the two plans offered. One plan offered in-hospital surgical coverage only. But the other provided the broadest possible range of prepaid medical service: medical and surgical care in the hospital, in the office and even covered home calls.

With nothing to guide them in putting a price on these programs, they had to go by guess and they guessed wrong. Income from these too-low rates was far outstripped by the benefit payments—and the rate was particularly out of balance in the so-called comprehensive program.

But even at what really was a bargain-rate, the public was apathetic to this all-inclusive coverage. The public simply was not prepared for it and enrollment under it was considerably short of sensational. Relatively cheap though this broad coverage was, it was obviously more than an untutored public felt it wanted to pay for.

The Blue Shield plan between 1940 and 1942 went steadily into the red. By April of 1941, Blue Shield was going in the hole so rapidly that it could no longer meet payments in full to the doctors according to the Schedule of Benefits. It was forced to make a 20 per cent pro-ration of all payments.

Even then, it could not come out even. The low point for Michigan Blue Shield was in late 1941 when it was $500,000 in debt and had about $2,000 in the bank. The insurance commissioner stepped in and, it would seem, sounded the death knell of Michigan Blue Shield. He said it would have to close up shop.

But the officers of Blue Shield wouldn't give up so easily. They asked for a three-month leeway. The Commissioner agreed but only on the grounds that somebody from his office be put in charge.

That is how Jay Ketchum, present executive director of Michigan Blue Shield, entered the picture. Jay was deputy insurance commissioner and the arrangement was to borrow him for six months. It was also at this time that Dr. Robert L. Novy, one of the more outspoken critics of the way Michigan Blue Shield was operating, was elected president.

There were those who regarded the situation as Ketchum "the undertaker sent to bury Michigan Blue Shield" and Dr. Novy as "the man selected to read the funeral sermon."

Nothing was further from the truth. Mr. Ketchum and Dr. Novy seized the reins of leadership, put effective business methods to work with a vengeance, put the rates for the surgical-only contract up to a pay-its-own way basis and scrapped the broad all-inclusive benefits program completely.

Again, though the miracle was helped along by the few stalwarts who refused to give up, despite the strong criticism from the doubting Thomases, they are the first to admit that their efforts would have been for naught if it had not been for a

strong, silent undercurrent within the majority of the profession to make their Blue Shield plan succeed.

So this was the turning point. Michigan Blue Shield, with a program of benefits in line with what the public was willing to buy and priced to be actuarially sound, started pulling out of the hole.

Enrollment boomed to over 350,000 by 1944. And by 1944, Blue Shield had repaid to all doctors the 20 per cent proration withheld in 1941-42. Blue Shield was in the black and really solvent.

Michigan Blue Shield was over the hump—both with the public and with the doctors—now that it was on a sound, realistic basis.

The public now had a good sample of an efficient, effective prepayment program and they literally joined in droves. Moreover, the public was becoming educated to the value of prepaid benefits. They began to express a lively concern for broader benefits than in-hospital surgical coverage only.

Result was that in the mid-1940's Michigan Blue Shield offered an expanded contract that included in-hospital medical care, i.e., payment to the doctor for visits to persons hospitalized for non-surgical reasons such as heart trouble, asthma, diabetes, etc.

In plain every-day language, Michigan Blue Shield was going like a house on fire and serving as the bellwether and leader for medically-sponsored prepayment plans throughout the country.

The post-war era saw the firm establishment of voluntary prepayment through Blue Shield and the medical profession as an accepted socio-economic institution in the minds of all the people.

The cornerstone of this tremendous acceptance of Michigan Blue Shield by the public lay in two basic principles: (1) the principle of community-rating and (2) the principle of providing service benefits.

The principle of community-rating is the only way to offer equal benefits at equal rates to all segments of the community. In essence, the rates are based on what it costs to provide the covered medical services for all people covered. In short, the average rate for all the community. Thus the cost of care is spread, as it should be, over the entire community and no individual or group is penalized for individual reasons of health.

To practice what is called "experience rating" —setting the rate on the individual experience of a given group—puts a premium on good health, and this is something no individual can control.

Net result of such a method is to greatly lower the cost of prepaid care for the healthy groups who need it least and put the cost for the so-called poor risk groups—who need it most—away out of reach.

This is neither good medicine nor good economics. It is why Michigan Blue Shield—as the medical profession's own program—established the community-rating principle at the very outset.

The second basic principle—service benefits—is even more important. This gives prepayment assurance and security for the individual. Nobody can measure their need for medical services in terms of dollars and cents. They need protection against the medical crisis as well as the routine illness.

Only a medically-sponsored, medically-controlled program can offer this kind of protection. Because the program is sponsored and controlled by the doctors, it was able to set an equitable Schedule of Benefits that was acceptable to the doctors as full payment for services given members who fell within a certain income ceiling.

When Michigan Blue Shield was started we were still emerging from a severe depression. The program was aimed at providing—within the limits of the contract—full prepaid coverage for the average family.

The original income ceiling for full service benefits was set at $2,500—and at the time this covered close to 80 per cent of all families in Michigan.

But by the late 1940's, this $2,500 income ceiling had become totally unrealistic. Inflation and rapidly rising wages left only about 25 per cent in the $2,500-or-less income bracket. The Michigan State Medical Society recognized this situation and through its House of Delegates—the ruling body for Michigan Blue Shield—took prompt action.

It asked Blue Shield to develop a program, and a matching benefit-fee schedule to provide service benefits for families with an income ceiling of $5,000. This again would bring service benefits to about 80 per cent of the families.

This benefit schedule was arrived at through a comprehensive survey of all doctors to establish what they considered a fair and reasonable charge for care of persons in this general up-to-$5,000 income bracket. It was offered the public in early 1951. Another optional benefit offered a year previously was additional x-ray benefits and coverage for EKG's.

Part III—Success Brings Its Problems (1950-1957)

The 1950's started auspiciously. New and broader benefits had been provided. The pattern of public acceptance and rapid growth—which began in the mid-forties—continued well into the 1950's at an accelerated pace. Voluntary prepayment through the Michigan Blue Shield program had really "arrived." It became the first Blue Shield plan to enroll one million members in 1948 and by 1951 had doubled that figure to over two million.

There seemed to be no doubt about it; Michigan Blue Shield was riding the high tide of success. But that very success and public popularity began to create a few problems.

Competition was one. Commercial insurance, which in the past would not touch the field of hospital or medical care, took the cue from Blue Shield and its companion hospital prepayment program, Blue Cross. They saw a lucrative field featured and developed by Blue Cross and Blue Shield—and they jumped into the fray with real vigor.

Actually, Blue Shield and Blue Cross had created an appetite by the public for prepayment—and laid the groundwork for desire for even broader prepaid benefits.

The kind of job Blue Shield had done had conditioned the public over the last decade to begin to look upon coverage for the cost of medical care as a "right"—a social-economic right. And there were some in the medical profession who began to feel that perhaps they had spawned a Frankenstein.

Organized labor hypoed this trend by starting to call for what amounted to "womb-to-tomb" prepaid medical health care. This was a popular bandwagon of "complete medical coverage" without any real regard or understanding for what items of health care could not, perhaps, be efficiently covered under the blanket of group prepayment.

But, rightly or wrongly, there sprang up "Johnny-come-lately" pioneers in this apparently fertile field.

Ultra-conservative commercial insurance approached it from the angle of "major medical" coverage. At the other extreme came experiments in closed panel medicine that attempted to give "everything in the book," but under a restrictive system that negated the free practice of medicine and the free choice of physician that had been the bulwark of American medicine. It was, in a more subtle, less direct sense, an incorporation of the philosophy of the 1930's. It was the Phoenix of the 1930's arising again from the ashes of the concept of "socialized medicine." It was another manifestation of the same set of social symptoms that had pricked the medical profession into taking a long, serious look at itself 20 years ago and taking up the challenge of entering the field of medical economics.

Michigan Blue Shield and the medical profession found themselves squarely in the middle. They had come a long way with their voluntary prepayment program. But it was evident that they must go further. They could not stand still any more than they could stand still in the purely scientific, professional phase of medicine, research and new developments in the technical practice of medicine.

It was clear that the prepayment economics of medicine had become just as important a phase of medicine as the scientific laboratory.

The Michigan State Medical Society—just as it had been aware of the challenge in the 1930's—was aware of the new challenge arising in the 1950's.

Times and conditions were dictating. If its Blue Shield program was to continue to do its basic job successfully for Medicine—preserving the private practice of medicine and at the same time providing the public with the best workable means of financing the growing number of medical services it needed—Blue Shield must meet this challenge of demand for broadened coverage in the field of prepayment.

The question was "How Far and How Much?" Somewhere between the unrealistic Utopia of "total prepaid medical care" and existing benefits lay the sound, realistic answer.

Just as it did not jump into the field of prepayment blindly in the pioneer days of 1940, the State Medical Society did not rush willy-nilly into the field of broadened benefits.

MSMS wisely recognized that it required careful study and some pretty accurate soundings of the public and the medical profession to arrive at a realistic appraisal of what the public really wanted and what it was possible to provide in terms of the economics of prepayment.

Special committees were named by MSMS to start the spadework. There was the Committee to Study Comprehensive Prepaid Insurance Plans, the House of Delegates Committee on Medical Service and Prepayment Insurance and the Committee on Michigan Medical Service (Blue Shield).

These committees put in months of studying all these phases of prepayment, including exhaustive analyses of the various experimental programs operating in the field of extended benefits. These ranged from commercial insurance "major medical" programs to various and sundry types of closed panel plans.

These committees made their reports at a special session of the House of Delegates in Detroit on April 27 of last year.

The House of Delegates took a long and thoughtful look at these excellent, detailed reports and came up with this decision:

It was obvious that Michigan Blue Shield—the profession's own prepayment program—needed some overhauling. Its primary object was to best serve the public with the best practicable prepayment benefits that could be devised.

But the House of Delegates were quick to recognize that excellent as all the Committee reports were, there was one factor lacking:

Nowhere was there a report of any valid survey, valid analysis of what the people really wanted and were willing to pay for under a prepayment program, or what the doctors themselves felt was practicable and what they felt their patients wanted.

There was a good reason for this missing factor in the Committee reports. No such comprehensive survey had ever been conducted.

What they said in essence is: "Let's not shoot in the dark on the basis of what this group or that group says it thinks the general public wants.

Let's conduct a thorough survey and find out—find out from the public and find out from the medical profession."

"Then we can decide what changes if any should be made in our prepayment plan to meet what the public wants."

Out of this decision and this resolution was born the state-wide Opinion Study of Prepaid Medical Care Coverage in Michigan. It was the first such broad gauge study in breadth and depth of the subject ever taken. It was, as you know, really four studies of public and doctor opinion.

You also know that it was conducted in a period of five months and its results reported at the meeting of the House of Delegates in Grand Rapids in September of last year. You know that it attracted nation-wide attention and has gone down in history as the first such comprehensive and detailed survey in the prepayment and medical care field.

The details of its findings were carried in the November, 1957, issue of THE JOURNAL MSMS.

From the results of that survey the Reference Committee on Medical Insurance and Prepayment Insurance made recommendations for sweeping changes in the benefit program of Michigan Blue Shield. The recommendations were approved by the House of Delegates unanimously and passed on to Michigan Blue Shield to translate into a practical new contract that would incorporate these changes.

In the ensuing months Michigan Blue Shield, working closely and continuously with the Michigan State Medical Society, has hammered out the "New Blue Shield Contract"—the "Forward" look in prepayment that has placed Michigan Medicine once again in the forefront in the field of prepayment.

This new contract, tentatively approved by the State Insurance Department, is printed in full in this issue. It is quite a document. In my opinion, it is an historic document in the field of prepaid medical care and a tribute to the dynamic thinking, realistic thinking that has made Michigan a leader in the prepayment field of medicine from the very beginning.

This has been a report on the past, present and future of Michigan Blue Shield. I have tried to record as faithfully as possible the events of the past and the present.

The new Blue Shield contract, printed in full in this issue, is the story of the future. Why so much emphasis on the past and the present in this article? Primarily because I have always felt that only through a thorough understanding of the past can we fully understand the present—and only with a thorough knowledge of both can we presume to properly comprehend the future.

The new Blue Shield contract *is* the story of the future of Michigan Blue Shield. I think it spells a bright future for the free practice of medicine as we have known it for years and will provide the public with the best and most practicable prepayment program—the best economic instrument for availing themselves of the broad range of medical services they want and deserve and we in the profession stand ready to provide.

Here, in closing, I would like to take a brief glimpse into this future with a résumé of what the new Blue Shield contract adds up to and the basic policies behind it.

There is probably no better way to begin than to quote directly from salient parts of the Report of the Reference Committee which was passed by the House of Delegates last September. It sets forth unequivocally what Medicine considers an adequate prepayment program and the basic ground rules it must follow. Here's what it says under General Considerations:

The Michigan State Medical Society has made an intensive study of the development and the operation of the many means currently employed both in Michigan and elsewhere to insure against or to prepay the costs of medical care. The conclusions resulting from that study are set forth below and are based upon the following fundamental considerations:

1. The people of Michigan are entitled to and should have health care which meets the highest standards attainable.

2. Means should be generally available in Michigan which will permit the financing of the costs of necessary medical services and supplies to the greatest extent possible and practicable through prepayment.

3. To whatever extent the cost of a particular medical service is not covered by prepayment, such uncovered amount shall be predictable, be known to the patient in advance, and be within his ability to budget for out of income.

The foregoing can be accomplished only if those responsible for rendering the necessary medical services, namely the physicians of Michigan, assume the further responsibility of establishing within the profession a structure around which sound insurance or prepayment plans can be built and also a system by which the profession can assure itself, the prepayment plan subscribers, and the underwriters that the structure is functioning in accordance with its commitments.

Then came the criteria to provide these broad benefits within the framework of the historic physician-patient relationship, free practice of medicine and free choice of physician.

The new Blue Shield Employment Group contract fulfills every one to the letter.

Basically, it retains, of course, the historic community-rating principle so that no contract is preferential or discriminatory to different groups.

There is complete freedom of choice of physician.

The "service benefits" principle remains basic.

The fee schedules for the various income ceiling certificates have been set in conjunction with,

and approval of, Medical Care Insurance Committee of the Council and the Permanent Advisory Committee on Fees of the House of Delegates and embodies the principle of a Relative Value scale and applicable unit values.

The new Blue Shield contract has two classes of benefits—Class I under which the member within the proper income ceiling has no liability or share to pay the participating physician. Class II benefits under which the member does share in the cost to a specified and limited extent.

There is an entirely new and more realistic approach to setting income ceilings and determining whether the subscriber qualifies.

Up to now, as you know, Blue Shield offered two income ceiling plans—the $2,500 and the $5,000. The subscriber had an option as to whether he wished to take the one that fitted his income or the lower one.

In addition, there was no way for the physician to adequately determine whether the patient fell within the income ceiling limit of the contract he held.

This has all been changed and completely eliminates this "never-never" land of income ceiling qualification.

The new Employment Group program provides three income ceilings—a $2,500, a $5,000 and a $7,500. However, the subscriber no longer has a choice of which he will take. He is required to take the plan with the ceiling that fits his annual income.

This is accurately determined by his employer from his wage or salary for any given year. Each year, this is reviewed and the subscriber is reclassified into whatever income ceiling plan matches his salary or wage for that year.

Incidentally, those subscribers whose salary exceeds $7,500 a year must take the $7,500 plan and it is the physician's option whether he renders service in such cases with or without charge to the subscriber.

Here briefly are the benefits covered under Class I services:

1. Surgical services in and out of the hospital.

2. Obstetrical services, but not including services customarily rendered as pre-natal or post-natal care.

3. Medical services rendered by physician in charge of the case for any condition other than surgical or obstetrical, *when and for which the member is required to be and is admitted as a hospital bed-patient.*

4. Services of a physician anesthetist, other than physician in charge of the case.

5. Emergency First Aid, i.e., services not otherwise provided in the contract, rendered by the doctor within 24 hours of an accidental injury but limited to a maximum of $15.00 measured by the prevailing fee schedule.

The Class II services, in which the patient shares to a modest extent in the cost, involve the really new and broadened approach to prepaid benefits. Here is what is covered in this important Class II benefit area:

1. Diagnostic x-ray (x-ray pictures) as a hospital bed-patient, hospital outpatient or in the doctor's office.

2. Radiological therapeutic services utilizing generally accepted therapy (like x-ray, radium, etc.) for treatment of malignancies, bone tumors and certain other diseases. They are available as a hospital bed-patient, hospital outpatient or in the doctor's office.

3. Diagnostic laboratory services: (a) electrocardiograms, electroencephalograms and BMR's; (b) laboratory tests in the doctor's office or the hospital out-patient department.

4. Payment for medical consultation service (except staff consultations) when a hospital bed-patient.

5. Payment to a doctor (other than hospital intern, resident or house officer) assisting the surgeon when the member is a hospital bed-patient.

To help keep the cost of coverage down, these five kinds of services are covered by Blue Shield on a share-the-cost basis with the member. The Blue Shield member pays the first $5 or 10% of the cost (whichever is greater) of each of these services. Blue Shield pays the balance according to the benefit schedule.

In addition, there is a limit to the total amount in any given year a member must share. It is $25 under the $2,500 contract, $50 under the $5.000 contract and $75 under the $7,500 contract.

This is a capsule outline of the new Blue Shield contract. It is "Operation Forward" for the Michigan medical profession and for the people of Michigan each of us serves.

We believe this new program represents another example of the flexibility of Michigan Blue Shield to the changing economics and practice of medicine and its ability to continue to provide the people with the best and most realistic prepaid medical coverage.

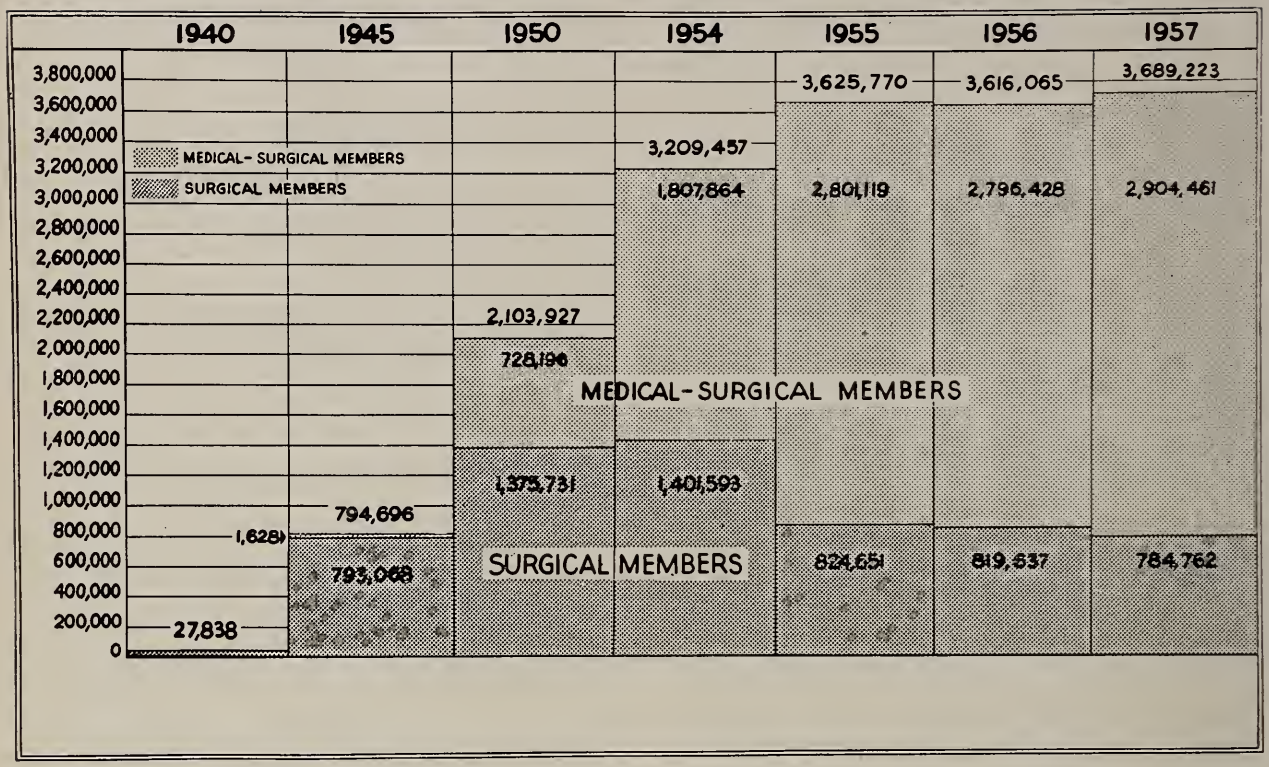
Coupled with the companion Blue Cross Comprehensive Hospital Care Contract, the new program adds up to the best prepaid health care plan available anywhere today.

Over the past two decades, the medical profession and the community hospitals have developed Blue Shield and Blue Cross with but one aim: To provide the people of Michigan the kind of prepaid protection they want and deserve without compromise in the quality of care.

In this respect, the new Blue Shield program speaks for itself and for everyone of us in Michigan medicine.

Michigan Medical Service

ENROLLMENT COMPARISON OF SURGICAL AND MEDICAL-SURGICAL CERTIFICATES



Michigan Medical Service

MEDICAL CARE EXPERIENCE (1951-1957)

MICHIGAN MEDICAL SERVICE MEDICAL CARE EXPERIENCE (1951-1957)

	Number Cases	*Number days* Total	*Number days* Per Case	*Amount Paid* Total	*Amount Paid* Per Case
$2,500 Income Contract					
1951	33,794	339,201	10.04	$ 1,336,241.20	$39.54
1952	50,635	530,780	10.48	2,029,072.25	40.07
1953	63,584	663,071	10.43	2,504,390.48	39.39
1954	67,766	726,077	10.71	2,766,385.98	40.82
1955	77,111	823,626	10.68	3,132,337.44	40.62
1956	72,495	745,929	10.29	2,997,204.13	41.34
1957	72,861	800,398	10.99	3,014,798.65	41.38
	438,246	4,629,082	10.56	$17,780,430.13	$40.57
$5,000 Income Contract					
1951	167	1,317	7.89	$ 6,707.50	$40.16
1952	3,227	34,813	10.79	158,036.00	48.97
1953	8,940	93,648	10.48	436,643.23	48.84
1954	14,407	145,229	10.08	719,346.54	49.93
1955	22,302	229,363	10.28	1,110,059.44	49.77
1956	78,212	817,174	10.45	3,975,741.57	50.83
1957	96,042	1,021,062	10.63	4,992,221.04	51.98
	223,297	2,342,606	10.49	$11,398,755.32	$51.05

Michigan Medical Service

Payments for Services to Subscribers By Residence of Doctors Rendering Service from March 1, 1940 through December 31, 1957

1.	Wayne	$113,115,673.10	42.08%
2.	Genesee	17,246,373.72	6.42
3.	Oakland	15,051,492.99	5.60
4.	Kent	10,677,423.44	3.97
5.	Washtenaw	9,880,994.79	3.68
6.	Ingham	9,075,887.32	3.38
7.	Saginaw	8,250,573.11	3.07
8.	Macomb	4,127,388.07	1.54
9.	Bay	3,977,677.40	1.48
10.	Kalamazoo	3,256,743.06	1.21
11.	St. Clair	3,088,873.08	1.15
12.	Calhoun	2,584,639.68	.96
13.	Muskegon	1,998,660.33	.74
14.	Berrien	1,783,782.51	.66
15.	Shiawassee	1,706,257.00	.63
16.	Grand Traverse	1,619,213.72	.60
17.	Jackson	1,557,329.93	.58
18.	Chippewa	1,528,562.98	.57
19.	Emmet	1,321,626.02	.49
20.	Ottawa	1,254,038.30	.47
21.	Alpena	1,192,812.47	.44
22.	Marquette	1,036,762.14	.39
23.	Van Buren	1,035,690.00	.39
24.	Clinton	953,974.00	.36
25.	Lenawee	943,043.75	.35
26.	Monroe	911,275.25	.34
27.	Isabella	911,204.65	.34
28.	Ionia	812,922.15	.30
29.	Branch	727,725.85	.27
30.	Wexford	703,842.00	.26
31.	Hillsdale	700,357.52	.26
32.	Tuscola	682,475.15	.25
33.	Houghton	657,062.00	.24
34.	Lapeer	652,181.25	.24
35.	Huron	644,038.00	.24
36.	Montcalm	604,127.00	.23
37.	Allegan	582,965.00	.22
38.	Eaton	579,804.42	.22
39.	Delta	556,965.25	.21
40.	Gratiot	542,563.50	.20
41.	Cheboygan	491,001.75	.18
42.	St. Joseph	463,463.72	.17
43.	Dickinson	417,710.50	.16%
44.	Livingston	415,776.50	.16
45.	Sanilac	394,895.75	.15
46.	Ogemaw	372,330.95	.14
47.	Oceana	362,987.75	.14
48.	Mason	329,038.45	.12
49.	Osceola	322,923.04	.12
50.	Presque Isle	314,835.00	.12
51.	Mecosta	311,944.00	.12
52.	Charlevoix	306,699.25	.11
53.	Menominee	259,307.75	.10
54.	Gogebic	257,771.15	.10
55.	Barry	232,967.35	.07
56.	Ontonagon	227,322.25	.09
57.	Schoolcraft	208,480.00	.08
58.	Newaygo	202,230.50	.08
59.	Crawford	201,042.75	.08
60.	Iosco	201,276.75	.07
61.	Manistee	195,167.25	.07
62.	Otsego	188,646.04	.07
63.	Baraga	178,603.25	.05
64.	Luce	167,871.55	.06
65.	Missaukee	165,710.25	.06
66.	Midland	147,971.65	.06
67.	Arenac	142,892.50	.05
68.	Gladwin	134,640.99	.05
69.	Leelanau	134,084.75	.05
70.	Cass	119,386.50	.04
71.	Benzie	116,300.70	.04
72.	Iron	85,704.00	.03
73.	Alcona	62,804.75	.02
74.	Clare	58,644.00	.02
75.	Antrim	48,610.00	.02
76.	Alger	34,435.50	.01
77.	Mackinaw	32,824.25	.01
78.	Roscommon	27,440.25	.01
79.	Kalkaska	15,967.00	.01
80.	Montmorency	15,162.00	.01
81.	Lake	8,816.00	.00
82.	Keweenaw	2,733.00	.00
83.	Oscoda	1,894.00	.00
	Total	$236,910,217.24	88.13
	Total Michigan M.D.'s	$236,910,217.24	88.13%
	Out-of-State Doctors and and Unclassified	5,979,993.16	2.23
	Paid to Osteopaths	25,917,589.53	9.64
		$268,807,799.93	100.00%

Michigan Medical Service

Detroit Michigan

EMPLOYMENT GROUP BENEFIT CERTIFICATE

THIS CONTRACT, made between the Subscriber named in the application and Michigan Medical Service, a non-profit corporation,

ENTITLES the Subscriber, and if listed on the application, the husband or wife and eligible unmarried dependent children of the Subscriber, to have, upon payment of the subscription rate and upon and subject to the terms and limitations and definitions hereinafter set forth, for a period of one month next following the effective date hereof and thereafter, as and to the extent hereinafter provided, services of physicians for the diagnosis and treatment of disease or injury at the expense of Michigan Medical Service.

In Witness Whereof, Michigan Medical Service by its agent duly authorized in the premises has executed this Certificate.

MICHIGAN MEDICAL SERVICE
Executive Vice President

DEFINITIONS

Section 1
The following terms shall have the following meanings:

SERVICES (A) The term "services" as used herein is defined, subject to the conditions and limitations contained in this certificate, and provided that the applicable subscription rate has been paid as provided herein, to mean services of the class, kind and nature described in the certificate, designated upon the Subscriber's application card, and indicated by the identification card issued to the Subscriber and in effect at the time services are rendered hereunder, rendered to the Subscriber, or enrolled dependent(s), by physicians registered as participating with Michigan Medical Service of the Subscriber's own choice, subsequent to the effective date and prior to the termination date hereof, to the extent and subject to the limitations, conditions and definitions set forth below.
Michigan Medical Service does not undertake to supply a physician for the Subscriber or enrolled dependent(s).

BLUE SHIELD (B) "Blue Shield" is Michigan Medical Service.

CONTRACT (C) "Contract" is and consists of: the application submitted as the basis for issuance of this certificate; the certificate; supplements or riders to the certificate, if any; and the Identification Card.

SUBSCRIBER (D) "Subscriber" is the individual applying for and with whom Blue Shield has entered into a contract.

MEMBER (E) "Member" is each person eligible for benefits under a contract.

DEPENDENT (F) "Dependent" is any or all of the following: the spouse of the subscriber; and children, unmarried, and only until the end of the calendar year in which they shall attain the age of nineteen (19) years: (a) of the subscriber, by birth, legal adoption, or legal guardianship while such children are in the custody of and dependent upon the subscriber; and (b) of the spouse of the subscriber, in the custody of and dependent upon the spouse of the subscriber, while residing in and members of the household of the subscriber.

INDIVIDUAL CONTRACT (G) "Individual Contract" is that type of contract which lists only the subscriber.

TWO PERSON CONTRACT (H) "Two Person Contract" is that type of contract which lists only the subscriber and one dependent.

FAMILY CONTRACT (I) "Family Contract" is that type of contract which lists the subscriber and more than one dependent.

PARTICIPATING PHYSICIAN (J) "Participating Physician" is a physician who is legally qualified and licensed to practice medicine and perform surgery in the State of Michigan and who has entered into an agreement to provide services to Blue Shield members under the Blue Shield plan of operation.

NON-PARTICIPATING PHYSICIAN (K) "Non-Participating Physician" is any physician who is legally qualified and licensed to practice medicine and perform surgery at the time and place services are rendered but who has not entered into an agreement to provide services to Michigan Blue Shield members under the Michigan Blue Shield plan of operation.

ANNUAL INCOME (L) "Annual Income" is the rate of pay of the subscriber at the place of employment where he became a member, effective on the date of application to Blue Shield and upon renewal of each succeeding anniversary date assigned by Blue Shield to subscribers enrolled at that place of employment computed as follows:
In the case of hourly rated employees, the base hourly pay rate including cost of living allowance, if any, extended by 2080 hours;
In the case of salaried employees the rate of salary including cost of living allowance, if any, extended by an appropriate number of days, weeks or months to equal one year;
In the case of employees paid on a commission or incentive basis, the amount earned by the subscriber at such place of employment in the twelve months period prior to such application or anniversary, or if there employed less than twelve months an amount equivalent to the average earned by all employees there similarly so employed, or an amount determined by such other method as may be agreed upon.

PLANS A, B, C and D (M) Plan "A" is the contract in effect with a subscriber whose annual income is less than $2,500.00;
Plan "B" is the contract in effect with a subscriber whose annual income is not less than $2,500.00 but less than $5,000,00;
Plan "C" is the contract in effect with a subscriber whose annual income is not less than $5,000.00 but less than $7,500.00;
Plan "D" is the contract in effect with a subscriber whose annual income is not less than $7,500.00.

CLASSES OF BENEFITS (N) "Class I Benefits" are those services set forth, described and limited as surgical, obstetrical, medical, and anesthesia, under Section 2 hereof;
"Class II Benefits" are those services set forth, described and limited as radiological (x-ray, etc.) diagnostic, radiological therapeutic, diagnostic laboratory, consultation, and technical surgical assistance under Section 3 hereof.

SCHEDULE OF FEES (O) "Schedule of Fees" is the schedule of fees paid by Blue Shield to participating physicians, in effect at the time service is rendered, identified under Plan "A" as Schedule of Fees "A"; Plan "B" as Schedule of Fees "B"; Plans "C" and "D" as Schedule of Fees "C".

GROUP (P) "Group" is all of the subscribers enrolled in Blue Shield at the place of employment where the subscriber made application or to which the subscriber has subsequently been transferred, and where a remitting agent by pay-roll deduction or by an agreed-upon alternative method collects subscriber rates for remittance to Blue Shield in behalf of the subscriber.

REMITTING AGENT (Q) "Remitting Agent" is the person or corporation designated by the subscriber to collect and remit to Blue Shield the subscription rate.

HOSPITAL (R) "Hospital" is a regularly approved institution which is primarily engaged in providing for compensation from its patients and on an in-patient basis, diagnostic and therapeutic facilities for the surgical and medical diagnosis, treatment, and care of injured and acutely sick persons, by or under the supervision of a staff of physicians who are duly licensed to practice medicine, and which continuously provides twenty-four (24) hour a day nursing service by registered graduate nurses, and which is not, other than incidentally, a place for rest, a place for the aged, a place for pulmonary tuberculosis, a place for mental disorders, a place for drug addicts, a place for alcoholics, or a nursing home.

SERVICES AND BENEFITS—CLASS I

Section 2

(1) CLASS I SERVICES: The following services if designated and indicated as provided in Section 1 hereof:

A. Surgical Services: i.e. generally accepted operative and cutting procedures rendered by the physician in charge of the case for the necessary diagnosis and treatment of disease or injury and of fractures and dislocations, including usual, necessary and related pre-operative and post-operative care, and including as a part of such service anesthesia customarily administered by a physician in charge of the case. Postoperative care shall be limited however, to the period of hospitalization of the member, or to a period of not more than fourteen (14) days following surgery, whichever is greater.

B. Obstetrical Services: rendered by the physician in charge of the case, but not including services customarily rendered as pre-natal or post-natal care. Such services rendered due to any condition of pregnancy, except ectopic pregnancy, shall not be a benefit unless and until this contract shall have been in force for nine consecutive months immediately prior to and in force on, the date such service is rendered.

C. Medical Services: i.e. services rendered by the physician in charge of the case for any condition other than surgical or obstetrical services, when and for which the member is required to be and is admitted as a bed-patient in a hospital. Medical services will be provided concurrently with surgical or obstetrical services or during the same hospital admission only when Blue Shield shall determine that such concurrent services are necessary, unrelated to surgical or obstetrical services, and different in kind and nature from that customarily rendered and considered to be surgical or obstetrical service.

Each member, except as provided below, shall be entitled to medical service for a maximum period of one hundred twenty (120) days under this and prior contracts of Blue Shield, during each continuous period of hospital confinement, or during successive periods of hospital confinement separated by less than three (3) months. Such member will again be entitled to a maximum period of medical service only after a lapse of at least three (3) months between the last discharge from and the date of next admission to a hospital.

Each member, in the event medical care is rendered primarily for treatment of tuberculosis or nervous or mental conditions, shall be entitled to medical service for a maximum period of thirty (30) days under this and prior contracts of Blue Shield, during each continuous period of hospitalization or during successive periods of hospitalization separated by less than six (6) months. Such member will again be entitled to a maximum period of such medical service only after a lapse of at least six (6) months between the last discharge from and the date of next admission to a hospital.

D. Anesthesia Services: i.e. the services of a physician anesthetist, other than the physician in charge of the case, when required by and rendered in relation to services being received under the provisions of this section as surgical, obstetrical or medical. Anesthesia service rendered by an employee of a hospital and anesthesia service such as is customarily rendered by a physician in charge of the case is excluded as a benefit hereunder.

E. Emergency First Aid: i.e. services not otherwise provided by this contract, made necessary by, and rendered by a physician within twenty-four hours following, accidental injury, up to but not to exceed a total value of $15.00 measured by the then prevailing applicable fee schedule.

(2) DISPUTES DETERMINATION: Determination of Blue Shield as to whether or not services are medical, surgical or related to surgical or obstetrical service, or are for tuberculosis or nervous or mental conditions, or, in the case of anesthesia service, are such as are required, or are customarily rendered by a physician in charge of the case, shall be conclusive.

SERVICES AND BENEFITS—CLASS II

Section 3

(1) CLASS II SERVICES: The services set forth and limited below, if designated and indicated as provided in Section 1 hereof, subject to payments by the subscriber as provided in Paragraph (2) of this section, for diagnosis or treatment, when rendered by the physician in charge of the case or by another physician on his order or prescription:

Except that services rendered due to any condition of pregnancy, except ectopic pregnancy, shall not be a benefit unless and until this contract shall have been in force for nine consecutive months prior to, and in force on, the date such service is rendered.

(A) Radiological-Diagnostic Services, excluding miniature x-ray plates, screening procedures, and procedures not directly related and necessary to diagnosis.

(B) Radiological Therapeutic Services utilizing generally accepted therapy (such as x-ray, radon, radium and isotopes), for the treatment of malignancies, tumors of bones, brain or spinal cord, hemangiomas, vascular nevi, lymphomas, leukemia, and thyroid disease.

(C) Diagnostic Services, required in diagnosis of disease or injury: 1. electrocardiograms, electroencephalograms, and basal metabolism tests and; 2. laboratory tests, when performed in the offices of a physician or in the outpatient department of a hospital. The services set forth in this paragraph (C) are excluded as a benefit to the extent that they may be a benefit to the member under the terms of any contract issued by any hospitalization expense plan.

(D) Consultation Services, except staff consultations required by hospital rules or regulations, but only while the member is a hospitalized bed-patient, for a condition requiring special skill or knowledge, as assistance in diagnosis or treatment to the physician in charge of the case, limited to one such medical, surgical or obstetrical bedside consultation during each period of continuous hospitalization.

(E) **Technical Surgical Assistance** by a physician to the physician in charge of the case, when deemed by Blue Shield to be required, and when related to services being received by the member under the provisions of Section 2 paragraphs A and B hereof, while the member is a hospitalized bed-patient within the State of Michigan and at such times as and in such hospitals when and wherein such surgical assistance is not routinely available as a service provided by a hospital interne, resident or house officer. Routine availability of such services in such hospitals at such times, and whether the nature of the surgery is such as to require technical assistance shall be determined by Blue Shield and its determination shall be conclusive.

(2) **MEMBER'S LIABILITY:** A member receiving Class II Services shall be liable to pay the physician in respect of each such service rendered the greater of (a) $5.00 or (b) ten per cent of the applicable scheduled fee for such service, but not more than the amount of such scheduled fee; however, if during any period of one year, not including any part of any other such period, while this and previous contracts are continuously in effect, there shall be incurred and paid in discharge of such member's liability, in respect of such Class II Services received by any one member a total aggregate amount in excess of: under plan "A", $25.00; or Plan "B", $50.00; or Plan "C", or Plan "D", $75.00; Blue Shield will, upon receipt of evidence of such excess payment satisfactory to it, refund such excess amount to the member. The excess amount aforesaid shall be separately computed as to each member whether or not a dependent.

If a member shall claim refund for payments made in respect of member's liability paid during a one year period in which the member has been entitled to services under more than one Plan (A, B, C or D) and the Plan in effect at the end of such period shall provide the lower aggregate, then any amount paid during such year by the member against the higher amount provided by the prior Plan, shall be credited against the lower aggregate up to but not in excess thereof.

EXCEPTIONS AND EXCLUSIONS

Section 4

The term "services" as used herein, and the benefits hereof, shall not include in addition to those elsewhere excluded, the following:

(1) Service for industrial injuries or diseases;

(2) Services from any government agency which are, or to the extent such services may be, obtained by the member without cost to him by compliance with laws or regulations enacted by any federal, state, municipal, or other governmental body.

(3) Hospital, dental or nursing services.

(4) Medicines, drugs, appliances, indirect blood tranfusions, materials or supplies.

(5) Pre-natal or post-natal care.

(6) Operations for cosmetic or beautifying purposes; however, this exclusion shall not apply to the correction of
(a) congenital anomalies if the member is less than twelve years of age and has been a member under this and prior Blue Shield contracts continuously in force since birth and
(b) conditions resulting from accidental injuries or surgical scars provided such conditions shall have had their origin at a time when this and any prior contracts were in force and such contracts have been continuously in force thereafter to the date of such service.

(7) Sterilization of either sex, regardless of medical necessity.

(8) Examinations and tests in connection with routine or periodic physical, pre-marital, or similar examinations or tests not required in and directly related to diagnosis of illness or injury.

CHARGES BY PHYSICIANS

Section 5

PARTICIPATING: Participating physicians rendering services to members under Plans A, B, and C, will make no charge to the member for any service to which the subscriber is entitled hereunder, except as provided in respect to Class II Services, and except as provided below. Participating physicians may at their option render services under Plan D with or without charge to the member.

Participating physicians may make a charge to any member:

(1) If the member shall request and occupy private room accommodations in the hospital. This exception (1) shall not apply to a member who is involuntarily compelled by nature of illness and on the order of the physician in charge of the case to be placed in such private room.

(2) If the member shall be entitled to recover damages by reason of, or reimbursement for the cost of, the services or for the injury, accident or condition occasioning the services, except from insurers on policies of insurance issued to and in the name of the subscriber, the payment made to the physician by Blue Shield shall be considered to be on account of the reasonable value of the services, and the difference, if any, between such reasonable value and the amount paid by Blue Shield shall be a liability of the member to the physician payable out of such damages or reimbursement if, as and when recovered by the member. Such additional charge, if any, shall be the liability of the member and not of Blue Shield.

(3) If the member shall be entitled to benefits under Plan D: In the event conditions (1), (2) or (3) above apply, Blue Shield will pay the participating physician for services rendered, its then prevailing scheduled fee and payments as provided in Section 3 paragraph (2) hereof, and the additional charge, if any, shall be the liability of the member.

NON-PARTICIPATING: If, in an emergency, the member shall utilize the services of a non-participating physician, the obligation of Blue Shield shall be limited to payment of an amount not in excess of the lesser of the physician's charge or the applicable scheduled fee, for such service subject to all the terms, limitations and conditions as would apply had the services been rendered by a participating physician and further subject to receipt by Blue Shield of reports of such services rendered, as required of participating physicians under Section 11, within ninety (90) days of rendition of such services.

SUBROGATION AND ASSIGNMENT

Section 6

SUBROGATION: In the event of any payment for services under this certificate, Blue Shield shall be subrogated to all the member's rights of recovery therefor against any person or organization except against insurers on policies of insurance issued to and in the name of the subscriber, and the member shall execute and deliver such instruments and papers and do whatever else is necessary to secure such rights.

ASSIGNMENT: The services to be provided under the certificate are for the personal benefit of the subscriber and cannot be transferred or assigned; any attempt to assign this certificate shall automatically terminate all rights hereunder.

TERM AND TERMINATION

Section 7

TERM: This contract shall constitute an agreement for one month from its effective date and shall be renewed thereafter each month, unless written notice of election to terminate the same is given by the subscriber to Blue Shield; or by Blue Shield to the subscriber, his employer or remitting agent, not less than thirty (30) days prior to the monthly renewal date on which date termination is to be effective.

TERMINATION: A. This contract shall be terminated automatically in the event of either:

(1) Failure to pay the applicable rate provided in Section 10 hereof.

(2) Termination of eligibility of the subscriber as a member of the group through which he enrolled, subject to the right of transfer and the right of conversion under Section 9(D). In the event of termination under the terms of this Section, such termination shall become effective at the end of the monthly payment period in which failure to pay or termination of eligibility occurred, without further action by Blue Shield.

B. Blue Shield shall not terminate this contract as long as the subscriber is an active member of the group through which he enrolled or to which he last transferred, except in the event such group shall:

(1) terminate enrollment under the provisions of this Section, or

(2) except upon the occurrence of one of the events mentioned in paragraph 8(A) of this section; provided, however, that nothing contained in this contract shall limit or restrict the right of Blue Shield to terminate the enrollment of the entire group.

C. Blue Shield may reinstate this contract after termination without the execution of a new application or the issuance of a new identification card or any notice to the subscriber, other than the unqualified acceptance of an additional payment from the subscriber or remitting agent. No such reinstatement shall create any rights to service for periods prior to the reinstatement date determined by Blue Shield, which shall become the effective date for all subsequent purposes hereof.

CHANGE OF STATUS OR TRANSFER OR CONVERSION

Section 8

A. The subscriber must notify the remitting agent or Blue Shield within thirty (30) days of change in his or her own or a dependent's status under the contract resulting from marriage, divorce, death or change of residence, or birth or legal adoption or attainment of age nineteen (19) of children; or change of address or entrance into or return from military service by the subscriber, or other cause.

B. Enrolled dependents at the end of the year in which they attain nineteen (19) years of age or at the time of marriage, may upon request transfer to any direct payment contract for which they are then eligible; provided notice of such change in status be furnished Blue Shield within thirty (30) days after the close of such year or the date of such marriage, and payment is made at the rate for the group or classification to which transfer is made.

C. Newborn or other eligible children may upon request of the subscriber be added to the certificate upon payment of such increased subscription fees as may be in order, provided such request is made within thirty (30) days from date of birth or attainment of eligibility.

D. In the event the subscriber shall become ineligible as a member of the group, he may on written notice within thirty (30) days after the end of the monthly payment period in which eligibility so terminates, continue or transfer this contract by:

(1) Transfer to another enrolled group of which the subscriber shall be or becomes eligible as a member;

(2) Continuance of this contract as a Suspended Group Contract for a period of not less than three (3) months nor more than six (6) months by payment of the applicable subscription rate as set forth in the table of rates in Section 10 hereof, in advance, beginning with the last day of the monthly payment period in which eligibility as a member of the group terminated. Blue Shield shall not be required to give, or be responsible for, notice of payment due of subscription rates, while the contract is on a Suspended Group Contract basis.

(3) Conversion of this contract to a Group Conversion Contract by written notice prior to the last date for which subscriber rates have been paid, either when he becomes ineligible as a member of a group or after this contract has been continued on a Suspended Group Contract basis for a period of not less than three (3) months nor more than six (6) months. The subscriber shall be transferred under this option (3) to any Group Conversion Contract, then available, issued by Blue Shield, most nearly applicable to the subscriber's income as defined in such Group Conversion Contract.

SUBSCRIPTION RATES

Section 9

The subscriber agrees to pay Blue Shield monthly in advance, unless otherwise provided, for the services of the class designated upon his Application Card and indicated by his Identification Card, at the following rates:

	Employment Group Rates		
	Contract "A"	Contract "B"	Contract "C & D"
Individual	$1.80	$2.13	$2.44
Two Person	$4.65	$5.45	$6.25
Family	$5.57	$6.62	$7.67

Blue Shield reserves the right to change the above rates on thirty (30) days' written notice to the subscriber; such change of rates to become effective on the date fixed in the notice, unless the subscriber notifies his employer or remitting agent prior to the effective date of such notice of his decision to terminate this contract.

GENERAL CONDITIONS

Section 10—Reports

Physicians participating with Blue Shield shall furnish reports to Blue Shield in such form as Blue Shield shall prescribe which shall remain confidential except for the purpose of determining rights and liabilities arising under this contract, relative to diagnosis and services given the subscriber entitled to or claiming such service under this certificate, and it is agreed that request for such service is authorization to the physician to make such reports.

Section 11—Identification

The subscriber's Identification Card must be presented to the physician when service is requested.

Section 12—Contest

No action or suit at law or in equity shall be commenced upon or under this contract until thirty (30) days after notice of claim has been given to Blue Shield, nor shall such action be brought at all later than two (2) years after such claim has arisen.

Section 13—Contract, Continuity of Benefits

The application submitted by the subscriber, this certificate and the identification card shall constitute the entire contract between the parties. No agent or em-

ployee is authorized to vary, add to, or change this contract as set forth in any manner or degree. The issuance of this certificate cancels all previous certificates then in force and all rights thereunder between the subscriber and Blue Shield.

Section 14—Reserves

After provision for proper reserves, subscribers may share at the discretion of the Board of Directors of Blue Shield and as approved by the Commissioner of Insurance of the State of Michigan, ratably or unequally according to such standards as may be provided by such Board and Commissioner, in surplus of Blue Shield through prospective or retrospective reduction of rates or prospective increase of services, or in such manner as such Board and Commissioner shall determine.

Section 15—Liberalization

Blue Shield may from time to time provide additional service or benefits by rider or other notice. Such additional service or benefits may be withdrawn at any time after notice given and deemed adequate by Blue Shield.

Section 16—Notice

Any notice required or permitted to be given by Blue Shield hereunder shall be deemed to have been duly given, if in writing and personally delivered, or if in writing and deposited in the United States mail with postage prepaid, addressed to the remitting agent or to the subscriber at the last address of record at the principal office of Blue Shield; such notice shall be deemed to be given when so personally delivered or mailed.

Section 17—Headings

The catchline headings and captions in no way shall be considered to be a part of this certificate, but are inserted only for purposes of convenience.

ON PROFESSIONAL CONDUCT

Michigan Medical Service was created to be of service to the people of Michigan. It was designed to provide *the patient* a means by which he could pay the doctor of his choice for professional care. Michigan Medical Service exists to provide a facility to the working men and women of this state. This basic fact seems to be losing much of its importance in the current thinking of some of the members of the medical profession.

This loss of the sight of a primary objective is fraught with peril. A danger lurks that is far more malignant than the petty hassles that now consume our interest. Certain groups are avidly concerned that they be paid as specialists for specialty care. It is important that a nice gradation be achieved. The hair must be split exactly and precisely so that each receives his portion in proportion. Quite suddenly, doctors appear to be more concerned with what they "get" than with what they "give."

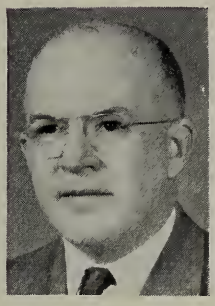
Let's review a few facts. The Michigan State Medical Society, less than twenty years ago, gained the enabling legislation that formed Michigan Medical Service. The medical profession was *forced* into the insurance business because no sound insurance company would undertake the gamble. It sought to provide the low-income wage-earner with a means of protection against financial ruin because of illness. It did this by combining group insurance principles with service contracts. The hospital group obtained the legislation that permitted the forming of Blue Cross. Again, group insurance with *service* contracts.

These plans had appeal and grew. By permitting people the right of free choice and at the same time providing them with an inexpensive and assured method of protection, Blue Cross and Blue Shield quickly became big business. They've had growing pains, but there will be difficulties and problems as long as growth continues.

Since when is Michigan Medical Service a means of funneling money into doctors' pockets? Has the surrounding clamor for more pay for less work infected our thinking? When our profession deserts its traditions (that have gained it esteem) to apparently substitute "smart business" for its dedicated ideals of trustworthiness, then we are far down the road to perdition. Fortunately, but a small segment of the members of the Michigan State Medical Society are engaged in haggling. The majority—the strong and too often silent majority—can correct this situation. It's high time they got busy. Too little and too late is nearly too true!—Ralph A. Johnson, *Detroit Medical News*, April 21, 1958.

Michigan State Medical Society

The Ninety-third Annual Session



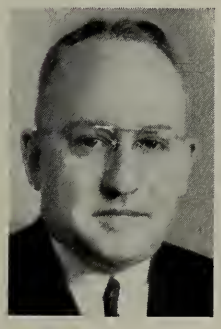
D. Bruce Wiley, M.D.
Utica
Council Chairman



G. W. Slagle, M.D.
Battle Creek
President



K. H. Johnson, M.D.
Lansing
Speaker



L. Fernald Foster, M.D.
Detroit
Secretary

OFFICIAL CALL

The Michigan State Medical Society will convene in Annual Session in Detroit, Michigan, September 28-29-30-October 1-2-3, 1958. The provisions of the Constitution and By-Laws and the Official Program will govern the deliberations.

G. W. Slagle, M.D.
President

D. Bruce Wiley, M.D.
Council Chairman

K. H. Johnson, M.D.
Speaker

J. J. Lightbody, M.D.
Vice Speaker

Attest:
L. Fernald Foster, M.D.
Secretary



J. J. Lightbody, M.D.
Detroit
Vice Speaker

THREE-DAY SESSION OF HOUSE OF DELEGATES

September 28-29-30, 1958

First Meeting—Sunday, 8:00 p.m.

The 1958 House of Delegates of the Michigan State Medical Society will hold a three-day session beginning Sunday, September 28, at 8:00 p.m. The business of the House of Delegates will be transacted in the Grand Ballroom of the Sheraton-Cadillac Hotel, Detroit.

The House will meet also on Monday, September 29 at 9:00 a.m. and on Tuesday, September 30, at 9:00 a.m. and at 8:00 p.m.

The intervals between meetings of the House of Delegates have been spaced to permit the Reference Committees ample time to transact all business referred to them.

SEATING OF DELEGATES

"Any Delegate-Elect not present to be seated at the hour of call of the first meeting may be replaced by the accredited Alternate next on the list as certified by the Secretary of the component County Society involved."—MSMS By-Laws, Chapter 8, Section 6.

OUTLINE OF 1958 ASSEMBLY AND SECTION SPEAKERS

93RD ANNUAL SESSION MSMS

Detroit, September 30-October 1-2-3, 1958

Time	Tuesday September 30, 1958	Wednesday October 1, 1958	Thursday October 2, 1958	Friday October 3, 1958
A.M. 9:00- 9:30		*Surgery* Vincent P. Collins, M.D. Houston, Texas	*Pediatrics* (To be Announced)	*Medicine* Perrin H. Long, M.D. Brooklyn, N. Y.
9:30-10:00		*Surgery* (To be Announced)	*General Practice* (To be Announced)	*Pathology* John M. Craig, M.D. Boston, Mass.
10:00-11:00		INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS
11:00-11:30		*Anesthesiology* John W. Severinghaus, M.D. Bethesda, Md.	*Public Health & Preventive Medicine* Hugh L. C. Wilkerson, M.D. Boston, Mass.	*Otolaryngology* (To be Announced)
11:30- 1:00 p.m.	Registration begins at 12:00 Noon on Tuesday	*Surgical Panel* James L. Wilson, M.D., *Moderator* Ann Arbor, Michigan Participants to be Announced	*Medicine Panel* David J. Sandweiss, M.D., *Moderator* Detroit, Michigan David Adlersberg, M.D. New York, N. Y. Henry L. Bockus, M.D. Philadelphia, Pa. Arthur B. French, M.D. Ann Arbor, Mich. Richard H. Marshak, M.D. New York City Robert J. Priest, M.D. Detroit, Mich.	*Nervous & Mental Diseases* (11:30-12:00 noon) O. Spurgeon English, M.D. Philadelphia, Pa.
P.M. 2:00- 2:30	*Gynecology* Willis E. Brown, M.D. Little Rock, Ark.	*Dermatology* Helen O. Curth, M.D. New York, N. Y.	*Biddle Lecture* *Gastroenterology-Proctology* Henry L. Bochus, M.D. Philadelphia, Pa.	*Medicine* (12:00-12:30 p.m.) Harry Gold, M.D. New York, N. Y.
2:30- 3:00	*Pediatrics* Waldo E. Nelson, M.D. Philadelphia, Pa.	*Urology* Ormond S. Culp, M.D. Rochester, Minn.	*Nervous & Mental Diseases* Lewis L. Robbins, M.D. Glen Oaks, N. Y.	*Medicine* (12:30-1.00 p.m.) (To be Announced)
3:00- 4:00	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS	FINAL INTERMISSION TO VIEW EXHIBITS (1:00-1:30 p.m.)
4:00- 4:30	*Obstetrics* Ralph A. Reis, M.D. Chicago, Ill.	*Dermatology* Theodore K. Lawless, M.D. Chicago, Ill.	*Ophthalmology* Alfred J. Elliot, M.D. Toronto, Ont.	TWO SECTION MEETINGS
4:30- 5:00	*Gynecology* Clayton T. Beecham, M.D. Philadelphia, Pa.	*Surgery* (To be Announced)	*Occupational Health* Thomas L. Shipman, M.D. Los Alamos, N.M.	*Pathology* (1:30 p.m. followed by dinner) John W. Craig, M.D. Boston, Mass.
	TWO SECTION MEETINGS	FOUR SECTION MEETINGS	EIGHT SECTION MEETINGS	*Medicine* (p.m.) John R. Simpson, M.D. Birmingham, Mich.
5:00- 6:00	*Obstetrics-Gynecology* (5:00-6:00 p.m.) (To be Announced)	*Urology* (5:00-6:00 p.m.) Ormond S. Culp, M.D. Rochester, Minn.	*Public Health & Preventive Medicine* (5:00-6:00 p.m.) Hugh L. C. Wilkerson, M.D. Boston, Mass.	CLINICS
	Pediatrics (5:00 p.m. followed by dinner) Waldo E. Nelson, M.D. Philadelphia, Pa.	*Surgery* (5:00-6:00 p.m.) Vincent P. Collins, M.D. Houston, Texas	*Gastroenterology-Proctology* (5:00-6:00 p.m. (To be Announced)	*Oto-Surgical Clinics:* 1:00 p.m. "Tympanoplasty" Harper Hospital Memorial Hospital Henry Ford Hospital
		Anesthesiology (5:00-6:00 p.m.) John W. Severinghaus Bethesda, Md.	*Nervous & Mental Diseases* (5:00-6:00 p.m.) Lewis L. Robbins, M.D. Glen Oaks, N. Y.	*Nervous & Mental Diseases Clinics:* 2:00 p.m.—Lafayette Hospital
		Dermatology-Syphilology (5:00-6:00 p.m.) Hermann K. Pinkus, M.D. Monroe, Mich.	*Ophthalmology Panel* (5:00 p.m. followed by dinner) Harold F. Falls, M.D. Ann Arbor, *Moderator* Windsor S. Davies, M.D. Detroit, Mich. Alfred J. Elliot, M.D. Toronto, Ont.	**Thursday** **October 2, 1958** *General Practice* (5:00-6:00 p.m.) (To be Announced)
		7:00 p.m. Officers Night Dinner Dance	*Otolaryngology* (6:30 p.m. dinner meeting) (To be Announced)	*Occupational Health* (5:00-6:00 p.m.) (To be Announced)
			(Continued next column)	*Radiology* (5:00-6:00 p.m.) (To be Announced)
				9:30 p.m. to 12:30 a.m. State Society Night MSMS Entertainment

Michigan State Medical Society

The Ninety-third Annual Session

SHERATON-CADILLAC HOTEL, DETROIT

SEPTEMBER 28-29-30; OCTOBER 1-2-3

INFORMATION

- **DETROIT WILL BE HOST TO MSMS IN SEPTEMBER, 1958**

- **MSMS HOUSE OF DELEGATES** convenes Sunday, September 28 at 8:00 p.m., Grand Ballroom, Sheraton-Cadillac Hotel. It will also hold two meetings on Monday, September 29 and two meetings on Tuesday, September 30.

- **THE PROGRAM OF THE ASSEMBLY** for the 93rd Annual Session of the Michigan State Medical Society lists guest speakers from all parts of the United States and Canada. They are the usual stars in the medical world who always grace the podium at annual conventions of the Michigan State Medical Society; they insure a valuable concentrated refresher course in all phases of medicine and surgery for the busy practitioners of Michigan, neighboring states and the Province of Ontario.

- **DATES OF SCIENTIFIC ASSEMBLY:** Tuesday noon through Friday noon, September 30, October 1-2-3, 1958.

- **REGISTRATION,** Tuesday afternoon (September 30) through Friday noon (October 3), Fifth floor, Sheraton-Cadillac Hotel. Present your State Medical Society, American Medical, or Canadian Medical Association membership card to expedite registration.

- **NO REGISTRATION FEE FOR STATE MEDICAL SOCIETY AND CMA MEMBERS.**
 Doctors of Medicine, who are not members of their state medical society or the Canadian Medical Association, will be accorded the privileges of the MSMS Annual Session upon payment of a $25.00 registration fee.

- **REGISTER AS SOON AS YOU ARRIVE. ADMISSION BY BADGE ONLY.**

- **DINNER-DANCE, WEDNESDAY, OCTOBER 1, 1958**
 The Officers Night Dinner Dance, to which all MSMS members and their ladies are cordially invited, will be held in the Book-Casino of the Sheraton-Cadillac Hotel, Detroit. Reception in Boulevard Lounge, 7:00 p.m.; dinner, 8:00 p.m. Sponsored by the Michigan State Medical Society and its Woman's Auxiliary.

- **MEMBERS OF MICHIGAN MEDICAL SERVICE** will meet in annual session, Tuesday, September 30, at 2:00 p.m. This meeting will follow the annual MMS luncheon will be held in the MMS Headquarters, 441 E. Jefferson.

- **ALL SUBJECTS** at the MSMS Annual Session are applicable to clinical medicine. They stress diagnosis and treatment, usable in everyday practice.

- **POSTGRADUATE CREDITS** given to every MSMS member who attends MSMS Annual Session.

- **SIX ASSEMBLIES**—15 Section Meetings—all on September 30-October 1-2-3.

- **SECTION MEETINGS** will follow the daily Assemblies.

- **PAPERS WILL BEGIN AND END ON TIME.** The MSMS scientific meeting always features by-the-clock promptness and regularity.

- **TECHNICAL EXHIBITS** will contain much of interest and value. Two daily intermissions to view the exhibits have been arranged.

- **C. I. OWEN, M.D., DETROIT,** is Chairman of the Committee on Arrangements for the 1958 Annual Session.

- **CABARET-STYLE DANCE AND ENTERTAINMENT,** with the compliments of the Michigan State Medical Society, will be held in the Grand Ballroom of the Sheraton-Cadillac Hotel on Thursday evening, October 1. All who register will receive a card of admission; they and their ladies are cordially invited to attend.

SCIENTIFIC ASSEMBLY

Tuesday-Wednesday-Thursday-Friday

September 30-October 1-2-3, 1958

SAVE AN ORDER FOR THE EXHIBITORS AT THE MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION

Michigan State Medical Society

The Ninety-third Annual Session

SHERATON-CADILLAC HOTEL, DETROIT, SEPTEMBER 28-30, 1958

HOUSE OF DELEGATES

ORDER OF BUSINESS*

SUNDAY, SEPTEMBER 28, 1958

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

6:00 p.m.—Registration

8:00 p.m.—First meeting

1. Call to Order by Speaker
2. Report of Committee on Credentials
3. Roll Call
4. Appointment of Reference Committees
 - (a) On Officers' Reports
 - (b) On Reports of The Council
 - (c) On Reports of Standing Committees
 - (d) On Reports of Special Committees
 - (e) On Constitution and By-Laws
 - (f) On Resolutions
 - (g) On Special Memberships
 - (h) On Rules and Order of Business
 - (i) On Legislation and Public Relations
 - (j) On Hygiene and Public Health
 - (k) On Medical Service and Prepayment Insurance
 - (l) On Miscellaneous Business
 - (m) On Executive Session
 - (n) On National Defense and Disaster Planning
5. Speaker's Remarks—K. H. Johnson, M.D., Lansing
6. President's Remarks—G. W. Slagle, M.D., Battle Creek
7. President-Elect's Remarks—G. B. Saltonstall, M.D., Charlevoix
8. Annual and Supplemental Reports of The Council—D. Bruce Wiley, M.D., Chairman of The Council
9. Report of Delegates to American Medical Association—W. A. Hyland, M.D., Grand Rapids, Chairman
10. Brief of Annual Report of Woman's Auxiliary—Mrs. C. Allen Payne, Grand Rapids
11. Brief of Annual Report of Michigan State Medical Assistants Society—Miss Marlouise Redman, Detroit
12. Report on Michigan Medical Service
13. Awards:
 - (a) Selection of Michigan's Foremost Family Physician
 - (b) Fifty-year Awards

*See the Constitution, Articles IV, VII and XII, and the By-Laws, Chapter 8 on "House of Delegates."

MONDAY, SEPTEMBER 29, 1958

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

9:00 p.m.—Second meeting

14. Supplemental Report of Committee on Credentials
15. Roll Call
16. Resolutions†
17. Reports of Committees of the House of Delegates
18. Reports of
 1. MSMS Standing Committees
 - (A) Committee on Postgraduate Medical Education
 - (B) Preventive Medicine Committee
 - (1) Committee on Rheumatic Fever Control
 - (2) Cancer Control Committee
 - (3) Maternal Health Committee
 - (4) Venereal Disease Control Committee
 - (5) Tuberculosis Control Committee
 - (6) Occupational Medicine Committee
 - (7) Mental Health Committee
 - (8) Child Welfare Committee (and Subcommittees)
 - (9) Iodized Salt Committee
 - (10) Geriatrics Committee
 - (C) Public Relations Committee (and Subcommittees)
 - (D) Ethics Committee
 - (E) Legislative Committee
 2. MSMS Special Committees
 - (A) Scientific Radio Committee
 - (B) Advisory Committee to Woman's Auxiliary
 - (C) Advisory Committee to Michigan State Medical Assistants Society

 Reports of the Committees of The Council, including Committee on Scientific Work, are included in Annual Report of The Council

MONDAY, SEPTEMBER 29, 1958

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

8:00 p.m.—Third Meeting

19. Supplementary Report of Committee on Credentials
20. Roll Call
21. Unfinished Business
22. New Business

†All resolutions, special reports, and new business shall be presented in writing in triplicate (By-Laws, Chapter 8, Section 10-m).

23. Reports of Reference Committees
 (a) On Officers' Reports
 (b) On Reports of The Council
 (c) On Reports of Standing Committees
 (d) On Reports of Special Committees
 (e) On Constitution and By-Laws
 (f) On Resolutions
 (g) On Special Memberships
 (h) On Rules and Order of Business
 (i) On Legislation and Public Relations
 (j) On Hygiene and Public Health
 (k) On Medical Service and Prepayment Insurance
 (l) On Miscellaneous Business
 (m) On Executive Session
 (n) On National Defense and Disaster Planning

TUESDAY, SEPTEMBER 30, 1958

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

9:00 a.m.—Fourth meeting

24. Supplementary Report of Committee on Credentials
25. Roll Call
26. Unfinished Business
27. New Business
28. Supplementary Reports of Reference Committees

TUESDAY, SEPTEMBER 30, 1958

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

8:00 p.m.—Fifth meeting

29. Supplementary Report of Committee on Credentials
30. Roll Call
31. Unfinished Business
32. Supplemental Report of The Council
33. Supplementary Reports of Reference Committees
34. Elections
 (a) Councilors:
 11th District—W. M. LeFevre, M.D., Muskegon—Incumbent
 12th District—B. T. Montgomery, M.D., Sault Ste. Marie—Incumbent
 17th District—W. B. Harm, M.D., Detroit—Incumbent
 (b) Delegates to American Medical Association
 W. D. Barrett, M.D., Detroit—Incumbent
 W. H. Huron, M.D., Iron Mountain—Incumbent
 R. L. Novy, M.D., Detroit—Incumbent
 (c) Alternate Delegates to American Medical Association
 Wm. Bromme, M.D., Detroit—Incumbent
 J. R. Rodger, M.D., Bellaire—Incumbent
 G. W. Slagle, M.D., Battle Creek—Incumbent
 (d) President-Elect
 (e) Speaker of the House of Delegates
 (f) Vice Speaker of the House of Delegates
35. Adjournment

ANNUAL SESSION APPOINTMENTS

Chairman of Arrangements

C. I. Owen, M.D., Detroit

House of Delegates Press Relations Committee

J. J. Lightbody, M.D., Detroit, Chairman
L. Fernald Foster, M.D., Detroit
K. H. Johnson, M.D., Lansing
M. L. Lichter, M.D., Melvindale
C. Allen Payne, M.D., Grand Rapids
W. S. Reveno, M.D., Detroit

Scientific Press Relations Committee

H. F. Dibble, M.D., Detroit, Chairman
A. B. Gwinn, M.D., Hastings
J. J. Lightbody, M.D., Detroit
C. Allen Payne, M.D., Grand Rapids
A. E. Schiller, M.D., Detroit
C. L. Weston, M.D., Owosso

HOTEL RESERVATIONS
MICHIGAN STATE MEDICAL SOCIETY

93rd Annual Session

Detroit, September 30-October 1-2-3, 1958

The reservation blank below is for your convenience in making your hotel reservations in Detroit. Please send your application to the Committee on Hotels for MSMS Convention, Sheraton-Cadillac Hotel, Detroit, Michigan. Mailing your application now will be of material assistance in securing hotel accommodations.

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant, when convenient.

— — — — — — — — — — — — — — — — —

Committee on Hotels,
Michigan State Medical Society
c/o Sheraton-Cadillac Hotel
Detroit, Michigan

Please make hotel reservation(s) as indicated below:

———— Single Room(s) ————persons

———— Double Room(s) for ————persons

———— Twin-Bedded Room(s) for ———persons

Arriving September ——— hour———A.M.———P.M.

Leaving ————————hour———A.M.———P.M.

Hotel of First Choice: ————————————

Second Choice: ————————————

Names and addressees of all applicants including persons making reservations:

Name	Address	City	State

Date ———— Signature ————————

Address ———————— City ————

MSMS HOUSE OF DELEGATES, 1958

Delegates and Alternates

(Names of Alternates appear in italics)

OFFICERS

K. H. Johnson, M.D., 1116 Mich. Natl. Tower, Lansing
Speaker
J. J. Lightbody, M.D., 501 David Whitney Bldg., Detroit
Vice Speaker
L. Fernald Foster, M.D., 441 E. Jefferson, Detroit
Secretary
Arch Walls, M.D., 17201 W. McNichols Rd., Detroit
Immediate Past President
A. Verne Wenger, M.D., 132 Grand Ave. N.E., Grand Rapids
Honorary Member

ALLEGAN

L. F. Brown, M.D., 133 E. Allegan, Otsego
E. B. Johnson, M.D., 144 Brady, Allegan

ALPENA-ALCONA-PRESQUE ISLE

E. S. Parmenter, M.D., P.O. Box 192, Alpena
J. E. Spens, M.D., 123 N. Second Ave., Alpena

BARRY

A. B. Gwinn, M.D., 102 East State St., Hastings

BAY-ARENAC-IOSCO

D. A. Bowman, M.D., 101 W. John, Bay City
A. D. Allen, M.D., 101 W. John, Bay City
W. G. Gamble, Jr., M.D., 2010 Fifth Ave., Bay City
W. E. Pelczar, M.D., 321 N. Johnson, Bay City

BERRIEN

N. J. Hershey, M.D., Box 222, Niles
D. W. Thorup, M.D., 756 Pipestone, Benton Harbor

BRANCH

R. J. Fraser, M.D., 22 W. Pearl, Coldwater
R. M. Leitch, M.D., 304 N. Broadway, Union City

CALHOUN

H. C. Hansen, M.D., 417 Post Building, Battle Creek
J. W. Hubly, M.D., 25 W. Michigan Ave., Battle Creek
G. T. Kelleher, M.D., 631 Post Building, Battle Creek
R. E. Fisher, M.D., 1501 W. Michigan Ave., Battle Creek

CASS

S. L. Loupee, M.D., 110 W. Division, Dowagiac
U. M. Adams, M.D., Marcellus

CHIPPEWA-MACKINAC

W. F. Mertaugh, M.D., Central Savings Bank Bldg., Sault Ste Marie
E. S. Rhind, M.D. 300 Court Street, Sault Ste Marie

CLINTON

F. W. Smith, M.D., 105 S. Ottawa, St. Johns
J. M. Grost, M.D., 303 E. Walker, St. Johns

DELTA-SCHOOLCRAFT

J. R. Dehlin, M.D., 8 S. 11th, Gladstone
J. H. Fyvie, M.D., 202 S. Cedar, Manistique

DICKINSON-IRON

D. R. Smith, M.D., 105 W. A. St., Iron Mountain
E. R. Addison, M.D., 412 Superior St., Crystal Falls

EATON

B. P. Brown, M.D., 339 S. Cochran, Charlotte
R. E. Landick, M.D., 111 S. Cochran, Charlotte

GENESEE

C. W. Colwell, M.D., 328 S. Saginaw, Flint
F. W. Baske, M.D., 1217 Mott Building, Flint
G. E. Anthony, M.D., 1015 Detroit St., Flint
J. E. Wentworth, M.D., 1651 Chevrolet Ave., Flint
F. D. Johnson, M.D., 653 S. Saginaw, Flint
L. G. Bateman, M.D., 1928 Lewis St., Flint
J. C. Benson, Jr., M.D., 402 W. 2nd St., Flint
W. F. Buchanan, M.D., Fenton
J. L. Leach, M.D., 3007 Industrial Ave., Flint
David McTaggart, M.D., 1603 Mott Building, Flint

GOGEBIC

W. A. Gingrich, M.D., 109 E. Aurora, Ironwood
F. J. Santini, M.D., 109 E. Aurora, Ironwood

GRAND TRAVERSE-LEELANAU-BENZIE

F. H. Power, M.D., 116 Cass, Traverse City
C. E. Lemen, M.D., 110 S. Madison, Traverse City

GRATIOT-ISABELLA-CLARE

John M. Wood, M.D., 815 E. Maple, Mt. Pleasant
Edward G. Meyers, M.D., Wolfe Clinic, Alma

HILLSDALE

A. W. Strom, M.D., 32 S. Broad, Hillsdale
L. W. Day, M.D., Jonesville

HOUGHTON-BARAGA-KEWEENAW

P. S. Sloan, M.D., 609 Shelden Ave., Houghton
L. C. Aldrich, M.D., 100 Quincy, Hancock

HURON

C. W. Oakes, M.D., Harbor Beach
R. C. Dixon, M.D., Box 77, Pigeon

INGHAM

K. H. Johnson, M.D., 1116 Michigan National Tower, Lansing
L. A. Drolett, M.D., 3526 W. Saginaw, Lansing
H. W. Harris, M.D., 609 N. Washington, Lansing
J. M. Wellman, M.D., 301 Seymour, Lansing
F. L. Troost, M.D., 4378 W. Delhi, Holt
K. W. Toothaker, M.D., 930 N. Washington, Lansing
I. E. Silverman, M.D., 1009 E. Michigan Ave., Lansing
R. E. Kalmbach, M.D., 301 Seymour Ave., Lansing
P. F. Lange, M.D., 1923 S. Cedar, Lansing
C. F. Holland, M.D., 125 W. Saginaw, Lansing

IONIA-MONTCALM

R. E. Rice, M.D., Box 271, Greenville
R. E. Campbell, M.D., 340 E. Main, Ionia

JACKSON

J. W. Rice, M.D., 421 McNeal, Jackson
H. W. Porter, M.D., 505 Wildwood, Jackson
C. R. Lenz, M.D., 405 First, Jackson
J. P. Bentley, M.D., 404 McNeal, Jackson

KALAMAZOO

W. K. Locklin, M.D., 1410 American Bank Bldg., Kalamazoo
F. C. Ryan, M.D., 507 S. Burdick, Kalamazoo
W. A. Scott, M.D., 208 Bronson Medical Center, Kalamazoo
J. G. Malone, M.D., 420 John, Kalamazoo
D. G. May, M.D., 516 Whites Road, Kalamazoo
M. D. Verhage, M.D., 228 West Cedar St., Kalamazoo

KENT

Richard A. Rasmussen, M.D., 1810 Wealthy S.E., Grand Rapids
Frank M. Burroughs, Jr., M.D., 11 S. Wilson, Grandville
J. Russell Brink, M.D., 50 College Ave. S.E., Grand Rapids
Felix S. Alfenito, M.D., 26 Sheldon Ave. S.E., Grand Rapids
J. A. Ferguson, M.D., 72 Sheldon Ave. S.E., Grand Rapids
G. R. Schneider, M.D., 1810 Wealthy, S.E., Grand Rapids
J. D. Miller, M.D., 50 College Ave. S.E., Grand Rapids
W. C. Beets, M.D., 124 Fulton, East, Grand Rapids
W. W. Jack, M.D., 1810 Wealthy S.E., Grand Rapids
D. P. Moore, M.D., 110 Fulton East, Grand Rapids
V. A. Notier, M.D., 50 College Ave. S.E., Grand Rapids
R. H. Puite, M.D., 26 Sheldon Ave. S.E., Grand Rapids
A. R. VandenBerg, M.D., 26 Sheldon Ave. S.E., Grand Rapids
Dale L. Kessler, M.D., 1840 Wealthy S.E., Grand Rapids
John F. Failing, M.D., 110-116 Fulton E., Grand Rapids
A. J. Hoffs, M.D., 26 Sheldon Ave. S.E., Grand Rapids

LAPEER

H. B. Zemmer, M.D., 311 Clay, Lapeer
T. K. Buchanan, M.D., 290 S. Almont Ave., Imlay City

LENAWEE

G. C. Wilson, M.D., 108 N. Jackson St.
W. H. Hewes, M.D., 146 E. Maumee, Adrian

LIVINGSTON

H. C. Hill, M.D., 116 N. Michigan, Howell
L. E. May, M.D., 203 N. Court St., Howell

LUCE

T. W. Thompson, M.D., Newberry State Hospital, Newberry
R. P. Hicks, M.D., 210 W. John Street, Newberry

MACOMB

Sydney Scher, M.D., 132 Case Avenue, Mt. Clemens
E. G. Siegfried, M.D., 91 Cass Ave., Mt. Clemens
E. J. Dudzinski, M.D., 424 Washington St., New Baltimore
J. H. Jewell, M.D., 18215 Utica Road, Roseville

MANISTEE

R. R. Garneau, M.D., Mercy Community Hospital, Manistee
E. B. Miller, M.D., 326 First, Manistee

MARQUETTE-ALGER

A. S. Narotzky, M.D., Miracle Circle, Ishpeming
J. R. Acocks, M.D., Morgan Heights San, Marquette

MASON

H. G. Bacon, M.D., 101 N. Main, Scotville
E. B. Boldyreff, M.D., Michigan Vets, FAC, Custer

MECOSTA-OSCEOLA-LAKE

Paul Ivkovich, M.D., 111 S. Chestnut, Reed City
E. H. Kowaleski, M.D., Remus

MENOMINEE

J. R. Heidenreich, M.D., Daggett
H. R. Brukardt, M.D., 534 First, Menominee

MIDLAND

H. L. Gordon, M.D., Dow Chemical Company, Midland
M. J. Ittner, M.D., 217 N. Saginaw, Midland

MONROE

S. N. Kelso, Jr., M.D., 127 E. Front, Monroe
R. A. Frary, M.D., 423 E. Elm, Monroe

MUSKEGON

D. R. Boyd, M.D., 1735 Peck, Muskegon
H. C. Tellman, M.D., 706 Hackley Union Bulding, Muskegon
W. H. Tyler, M.D., 1435 Peck, Muskegon
J. M. Busard, M.D., 503 Liberty Life Building, Muskegon

NEWAYGO

J. P. Klein, M.D., 16 West Sheridan, Fremont
R. E. Paxton, M.D., 40 West Sheridan, Fremont

NORTH CENTRAL

L. F. Hayes, M.D., Gaylord
C. L. Oppy, M.D., Roscommon

NORTHERN MICHIGAN

J. R. Rodger, M.D., Bellaire
Gerald Drake, M.D., 1109 E. Mitchell, Petosky

OAKLAND

E. B. Cudney, M.D., 809 Pontiac State Bank Bldg., Pontiac
W. J. Zimmerman, M.D., 253 Washington Square Bldg., Royal Oak
E. W. Bauer, M.D., 22643 Stephenson Hwy., Hazel Park
C. G. Burke, M.D., 1022 Riker Bldg., Pontiac
J. M. Markley, M.D., 839 W. Huron, Pontiac
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TEXAS-MICHIGAN PUBLIC HEALTH SERVICE MIGRANT PROJECT

One year ago, at a meeting in Washington, representatives of the Michigan and Texas State Health Departments and the United States Public Health Service reached agreement on the need for organizing an Interstate Study Project on the health needs of migrant workers. That project is now operative in Michigan.

The purpose of the project is to explore the problems of communities in providing health services for migrants both in their home-base and in their temporary northern work areas, and to develop and test techniques for dealing with these problems.

Headquarters for the home-base phase of the study is Laredo, in Webb County, Texas. Texas Employment Commission records show that about 45 crews totalling more than 600 persons had gone from Laredo to Michigan under their auspices in 1957. An analysis of the itineraries of these crews showed that four counties in Michigan tended to be points of concentration although fewer than 100 Laredo-based migrants were in any of these counties at one time. The four counties were Ingham, Montcalm, Newaygo, and Oceana. In addition, Lenawee and Monroe counties had relatively large numbers of Laredo workers for short periods in August and September. The records reviewed do not include persons recruited by the Michigan Sugar Company or who got jobs on their own.

In brief, the plan includes the following features:

1. So far as possible, each migrant going to Michigan from this recruiting center has been given a health appraisal. At the same time, he has been given a health record and instructions about its use. Every effort was made to get follow-up care completed as far as possible before the migrant left for Michigan.

2. Contact with the migrants has been made through the crew leaders with the co-operation of the recruiting agencies: the Texas Employment Commission and the Michigan Sugar Company. Including workers and all dependents, the number of migrants contacted is estimated at about 1,000 and they travel in from 60 to 80 crews.

3. A small group of migrants with identified health problems requiring follow-up care at the time of leaving Webb County have been selected for special study during the Michigan phase.

4. The field director was assigned to temporary duty in Laredo starting early in December. While in Texas, he functioned as a representative of the Texas State Department of Health until the processing of migrants had been completed and the exodus begun. Following the Texas phase, the field director was transferred to temporary duty in Michigan. Here he has similar responsibility for following up the procedures originated in the Texas phase of the project.

5. Costs of the field director's travel and other project costs within each state are met by the state involved; interstate travel for the field director is financed by the Public Health Service.

6. Correspondence concerning the project but not involving policy is sent direct with informational copies to the State and Regional offices concerned.

7. Data on crew itineraries showing work areas in Michigan is forwarded to Michigan as it becomes available.

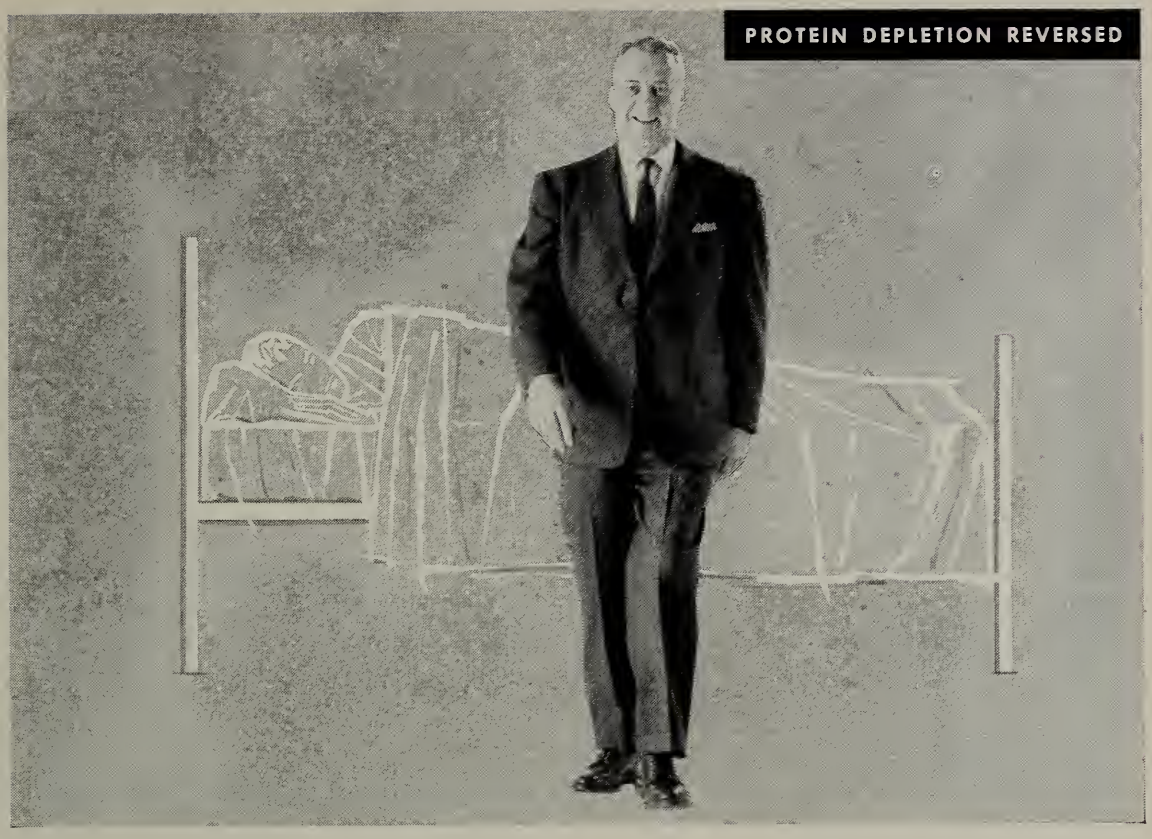
8. Information about work schedules in intermediate states is also obtained as soon as possible so that consideration can be given to the development of this phase of the project by central office personnel.

9. A pre-season field trip to Michigan was made by the field director and others from the Public Health Service (regional and central offices) in March in advance of the transfer of the field director, after the destination of Michigan-bound migrants was known. This field trip provided an opportunity for further planning and preparation for the Michigan phase and for discussion of plans for using the field director as a part of the Michigan Department of Health staff.

10. Each phase of the project has been so designed that comprehensive evaluation of its effectiveness is possible. This includes obtaining the suggestions and opinions of various participants—health workers, crew leaders, migrants, employment service personnel and others—as well as statistical analysis of the information available from a reappraisal of the migrants and their health record at the end of the migratory cycle.

HEALTH SHOWS ON RADIO

AMA's health messages are reaching the American people via radio. A glance at the latest Bureau of Health Education report shows that 574 sets of AMA transcriptions were in the hands of local broadcasters throughout the country on April 28, 1958. Since there are thirteen programs in each set, this represents approximately 7,500 local broadcasts which have been, are being, or will be made from these transcriptions. Some of the most popular series include "Menu for Health" (forty-five sets), "Harmony and Health" (forty-six sets), and "Interlude" (twenty-eight sets). Not included in these figures are the monthly platters entitled, "Health Magazine of the Air."



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In Memoriam

STANLEY E. CONDON, M.D., forty-one, Grosse Pointe Woods physician, died April 5, 1958, of a stroke.

Doctor Condon was a 1942 graduate of Wayne State University School of Medicine, interned at Los Angeles County Hospital and had practiced in Detroit about fifteen years.

SYDNEY I. FOLEY, M.D., sixty-six, Flint radiologist, lied March 12, 1958.

A native of Howe Island, Ontario, Doctor Foley received his medical degree from Queens University in Ontario in 1914. He completed his internship at Columbia University Hospital in 1916 and his residence training at Lying-In Hospital, New York City, in 1917.

He served as a captain in the Canadian Army medical corps from 1917 to 1919, following which he moved to Flint in 1920 where he engaged in general practice. In 1930 his interest in radiology led him to do work at the University of Pennsylvania. Upon his return to Flint in 1931, he began the radiology department at St. Joseph Hospital.

He was a member of St. Michael Catholic Church, the Knights of Columbus and Elks.

CLARENCE M. MERCER, M.D., seventy-five, Battle Creek physician, died April 11, 1958, of a heart ailment.

Born in Eureka, California, Doctor Mercer first came to Battle Creek in 1903 as a student of the American Medical Missionary College, but after two years transferred to Jefferson Medical College in Philadelphia where he received his medical degree in 1907. After his internship at Sequoia Hospital, Eureka, California, he became chief surgeon at the Humboldt County Hospital. Then followed graduate work in the New York Postgraduate School and the Lying-In Hospital in which he established his specialties in surgery and diagnosis before returning to Battle Creek in 1919.

Active in the Seventh-Day Adventist Church, Doctor Mercer was a Life Member of Battle Creek Commandery No. 33, Knights Templar and the Saladin Shrine Temple.

FRANK L. MORRIS, M.D., seventy-one, Cass City physician, died March 17, 1958. A graduate of Detroit College of Medicine in 1910, Doctor Morris had practiced in the Thumb area for almost 48 years. He opened the Morris Hospital in 1926, and although he sold the institution ten years ago, he has maintained an office there.

Three years ago Doctor Morris was honored by Cass City residents for forty-five years of service to the community and recalled at that time his many horse-and-buggy trips to care for patients. Once he pumped a handcar on railroad tracks for 12 miles to see a patient.

JOHN H. McEWAN, M.D., sixty-eight, Bay City physician, died March 14, 1958, after an illness of two months.

Born in Bay City, he started his practice in 1919 after serving as a captain in the U. S. Medical Corps in World War I.

Doctor McEwan received his medical degree from the University of Michigan in 1913 and interned at Harper Hospital, Detroit. He was a member of Phi Chi fraternity.

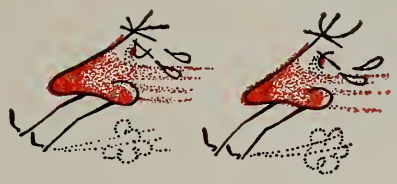
FRANKLYN A. RICE, M.D., seventy-two, Niles physician, died April 9, 1958. Doctor Rice, whose long medical career was marked by service in both world wars (he was a retired Army Colonel), was born in North Olmstead, Ohio. He took his medical education at Western Reserve University, Cleveland, Ohio.

Doctor Rice had been associated in private practice with his son, Franklin Gilbert Rice, M.D., in Niles, since his retirement from the service in 1947. His activities in civic affairs included serving as chief of staff at Pawating for two years, as director of the Berrien County medical branch of civilian defense and activities in the Red Cross and American Cancer Society.

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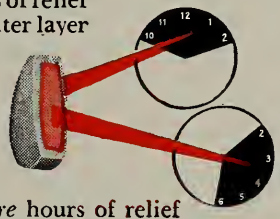
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MICHIGAN AUTHORS

Martin J. Urist, M.D., South Haven, is the author of an article entitled "The Effect of Asymmetrical Horizontal Muscle Surgery," published in A.M.A. *Archives of Ophthalmology,* February, 1958.

Steven J. Figiel, M.D., Leo S. Figiel, M.D. and **Desmond K. Rush, M.D.,** Detroit, are the authors of an article entitled "Study of Colon by Use of High-Kilovoltage Spot-Compression Technique," read before the Section on Radiology at the 106th annual meeting of the American Medical Association, New York, June, 1957, and published in *The Journal of the American Medical Association,* March 15, 1958.

Frederic B. House, M.D. and **Sylvester J. O'Connor, M.D.,** Ann Arbor, are the authors of an article entitled "Specific Management for Lumbar and Sacral Radiculitis," read before the Section on Physical Medicine at the 106th annual meeting of the American Medical Association, New York, June, 1957, and published in *The Journal of the American Medical Association,* March 15, 1958.

M. Wyatt Haisten, M.D., and **Jack S. Guyton, M.D.,** Detroit, are the authors of an article entitled "Cyclodialysis with Air Injection," presented before the 16th clinical meeting of the Wilmer Residents Association in April, 1957, and published in A.M.A. *Archives of Ophthalmology,* April, 1958.

Ned I. Chalat, M.D., Detroit, is the author of an article entitled "Synovial Otorrhea," published in A.M.A. *Archives of Otolaryngology,* April, 1958.

John M. Hammer, M.D., Patrick H. Seay, Ph.D., Richard L. Johnston, D.V.M., Kalamazoo, **Edward J. Hill, M.D,.** and **Frank W. Prust, M.D.,** Detroit, are the authors of an article entitled "Reinforcement of Vascular Grafts with Viable Intestinal Segments," published in A.M.A. *Archives of Surgery,* April, 1958.

Philip J. Huber, M.D., Detroit, is the author of a paper entitled "Neurosurgical and Neurological Aspects of Industrial Trauma," presented at the Michigan Industrial Association annual meeting, 1957, in Detroit, and published in *Industrial Medicine and Surgery,* April, 1958.

William J. Fulton, M.D., Detroit, is the author of an article entitled "Medical Department Layout and Design," published in *Industrial Medicine and Surgery,* April, 1958.

Carey P. McCord, M.D., Ann Arbor, is the author of an article entitled "The Toxic Properties of Some Timber Woods," published in *Industrial Medicine and Surgery,* April, 1958.

Harry Kashtan, M.D., Giovanni Chiappe, M.D., and **S. R. Scheinberg, M.D.,** Detroit, are the authors of an article entitled "Staphylococcus Enteritis and Pseudomembranous Enterocolitis," published in *Harper Hospital Bulletin,* January-February, 1958.

Herbert Rosenbaum, M.D., Detroit, is the author of an article entitled "Selections—1957 Session of the American Heart Association," published in *Harper Hospital Bulletin,* January-February, 1958.

Luther R. Leader, M.D., Detroit, is the author of an article entitled "Present-Day Treatment of Diverticulitis of the Colon," published in *Harper Hospital Bulletin,* January-February, 1958.

George Moriarty, M.D., Aaron Farbman, M.D., Philip Huber, M.D., Warren Babcock, M.D., Ethelbert Spurrier, M.D., Irving Kurtz, M.D., Garnet Ice, M.D., Raymond Husband, M.D., Louis Gariepy, M.D., Juan Chiappe, M.D., Laurence Linkner, M.D., John Skinner, M.D., and **Aran Johnson, M.D.,** Detroit, are the authors of an article entitled "Gems and Stratagems 11. 1957 Meeting, American College of Surgeons," published in *Harper Hospital Bulletin,* January-February, 1958.

Jay C. Ketchum, Executive Vice President, Michigan Medical Service, is the author of an article entitled "Blue Shield Yesterday, Today and Tomorrow," published in *The Journal of the Florida Medical Association,* March, 1958.

William J. Fulton, M.D., Detroit, is the author of an article entitled "Medical Department Layout and Design," published in *Industrial Medicine and Surgery,* March, 1958.

Edwin M. Knights, Jr., M.D., Flint (formerly of Detroit) is the author of an article entitled "Ultramicroanalytic Methods Now Adaptable to Hospital Use," published in *The Journal of the American Medical Association,* March 8, 1958.

Gordon C. Brown, Sc.D., Donald C. Smith, M.D., Ann Arbor, **Winston B. Prothro, M.D.,** Grand Rapids, and **Robert E. Rowe, M.D.,** Port Huron, are the authors of an article entitled "Duration of Serimmunity after Poliomyelitis Vaccination," published in *The Journal of the American Medical Association,* April 19, 1958.

Samuel J. Levin, M.D., and **Philip Adler, M.D.,** Detroit, are authors of an original article "Prednisone in the Treatment of Allergic Diseases in Children," which appeared in the *AMA Journal of Diseases of Children,* February, 1958.

D. C. Smith, M.D., Ann Arbor, **W. B. Prothro, M.D.,** Grand Rapids, and **R. E. Rowe, M.D.,** Port Huron, are coauthors of an original article "Duration of Serioimmunity after Poliomyelitis Vaccination" which appeared in JAMA of April 19, 1958, page 1960.

(Continued on Page 898)



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(Continued from Page 896)

The annual Coller-Penberthy Medical Conference will be held this year in Traverse City on Thursday and Friday, July 24 and 25.

* * *

Joseph N. Schaeffer, M.D., of Peoria, Illinois, has been appointed Special Professor of Physical Medicine, Wayne State University College of Medicine. He has also been named recently as Director of the Rehabilitation Institute of Metropolitan Detroit. The appointment became effective May 3, 1958. Dean Gordon H. Scott, in announcing the appointment, said, "The importance of physical and rehabilitation medicine has been growing in the last fifteen years and is now a must in modern medical education." Dr. Schaeffer graduated from Ohio State University's medical school in 1940 and served in the United States Air Force from 1942 to 1954. He served a residency at Percy Jones Army Hospital in Battle Creek, and took specialized training in physical medicine at the Mayo Clinic.

* * *

M. K. Newman, M.D., Detroit, presented a talk before the Windsor Chapter of the Canadian Physical Therapy Association, April 9, 1958. The title of his talk was, "Muscle Weakness and Atrophy." On April 10, 1958, he presented another paper before the Conference of Physical Medicine and Rehabilitation, Veterans Administration Hospital, Cincinnati, Ohio. This talk was entitled, "New and Promising Program Facets and Developments for Physical Medicine and Rehabilitation in the Veterans Administration."

* * *

Newly elected officers of the United States Section, International College of Surgeons, are: President, Dr. Edward L. Compere, Chicago; president-elect, Dr. Harry E. Bacon, Philadelphia; first vice president, Dr. Neal Owens, New Orleans; vice presidents, Drs. Alexander Brunschwig, New York; Arthur Steindler, Iowa City; Horace E. Ayers, New York; Francis L. Lederer, Chicago; David Allman, Atlantic City; Gilbert F. Douglas, Birmingham; Moses Behrend, Philadelphia; Earl J. Halligan, Jersey City, and Gershom J. Thompson, Rochester, Minnesota; secretary, Dr. Karl A. Meyer, Chicago; treasurer, Dr. Oscar B. Nugent, Chicago; honorary chairman of qualification, credentials and examination council, Dr. W. Wayne Babcock, Philadelphia; chairman of board of trustees, Dr. Claude J. Hunt, Kansas City, Missouri.

W. L. Lowrie, M.D., Detroit, is Chairman of the Clinical Society of the Michigan Diabetes Association and Walter L. Anderson, M.D., Detroit, is Program Chairman.

* * *

The Michigan Academy of Physical Medicine and Rehabilitation Officers are: President—James W. Rae, M.D., Ann Arbor; Secretary—Leonard F. Bender, M.D., Ann Arbor.

(Continued on Page 901)



(Continued from Page 898)

Chest x-ray surveys of the Michigan Department of Health last year were nearly twice as effective as in previous years in finding suspected cases of tuberculosis. A total of 8,059 tubercular suspects were found among the 399,364 films taken. This was a rate of 20.2 suspects for every 1,000 x-rays. In the preceding five years, the rate ranged from 10 to 12. An increasing portion of the newly reported tuberculosis cases are being found through selective x-ray surveys.

A total of 5,011 cases of tuberculosis were reported last year in Michigan. This is a reduction of 9 per cent from 1956. In recent years new cases of tuberculosis have fluctuated between 5,000 and 6,000, showing an over-all gradual decline. The 1957 new case figure may serve as a low point for some time. In the first four months of 1958, there were 491 more new cases reported than during the first four months of 1957.

MICHIGAN TUBERCULOSIS ASSOCIATION

* * *

Wayne State University's Board of Governors has voted to increase the College of Medicine enrollment from 75 to 125 freshmen students, beginning in September, 1958—with Legislative approval. Funds to cover expansion will come from the State's general appropriation to the University of $9,718,900. Estimated cost for the additional students is $285,000 for the first year.

* * *

John E. Webster, M.D., Detroit, received a special honor at Wayne State University's ninetieth annual alumni reunion, May 17, at the Sheraton-Cadillac Hotel, Detroit. Doctor Webster was one of five who received awards as graduates who have earned a distinguished record in their professional activities. Doctor Webster has been active in medical research in addition to his practice in neurology and surgery. Congratulations, Doctor Webster!

* * *

Kalamazoo will be one of the outlets for the ninety-minute closed circuit television program emanating from the AMA annual convention in San Francisco on Wednesday, June 25, 6:00 to 7:30 p.m. Pacific daylight time. The program is being sponsored by the American Medical Association and the Upjohn Company of Michigan.

* * *

The Genesee County Medical Society's 13th Annual Cancer Day was held April 9, in Flint. Over 400 doctors of medicine registered to hear guest speakers Eugene M. Bricker, M.D., St. Louis; Benjamin Felson, M.D., Cincinnati; Edgar L. Frazell, M.D., New York; Alfred Gellhorn, M.D., New York; Robert C. Horn, Jr., M.D., Detroit, and I. S. Ravdin, M.D., Philadel-

(Continued on Page 902)





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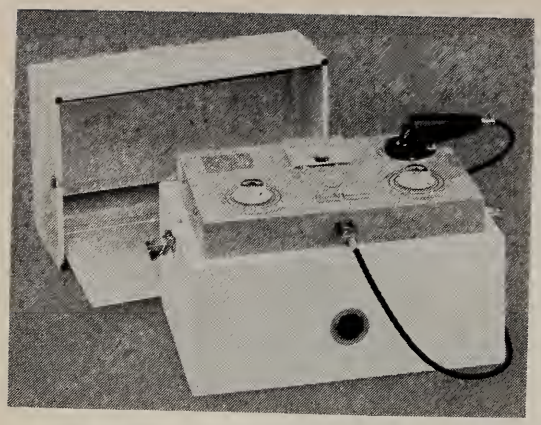
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(Continued from Page 901)

phia. The Clinic was co-sponsored by Mr. Donald E. Johnson, Flint, Vice-President of The American Cancer Society and an honorary member of MSMS.

* * *

A. Grant Clarke, Past President of the Medical Exhibitors Association and long-time friend of the Michigan State Medical Society, died suddenly April 23 in New York City. For some twenty years, Grant Clarke attended practically every annual session of the Michigan State Medical Society as Executive of Wm. Esty & Co. and more recently of Lennen & Newell, Inc., New York City.

* * *

The University of Illinois College of Medicine, Department of Otolaryngology, announces its Annual Assembly in Otolaryngology, September 29 through October 5, 1958. For information, write the department at 1853 West Polk Street, Chicago 12, Ill.

* * *

H. M. Nelson, M.D., Detroit, Chairman of the Michigan Cancer Co-ordinating Committee and Past President of the American Cancer Society, addressed the Saginaw Valley Public Health Association in Midland on April 24. His subject was "Progress in Control of Cancer Through Research."

* * *

R. W. Spalding, M.D., Lansing (formerly of Gobles, Michigan), C. H. Palmer, M.D., Hartford, and A. H. Steele, M.D., Paw Paw, were recently presented with fifteen-year service certificates from the Van Buren County Selective Service Board. Other Van Buren County doctors of medicine who received similar certificates were M. W. Buckborough, M.D., and John Itzel, M.D., of South Haven, and F. M. Boothby, M.D., of Lawrence.

* * *

A. A. Claytor, M.D., Saginaw, was recently honored by a reception in recognition of his appointment to the Board of Directors of the Virgin Islands. Held in Saginaw at the Bancroft Hotel, the affair was attended by about 150 persons including city, county and schools officials, state legislators and U.S. Senator Charles E. Potter. Congratulations, Doctor Claytor!

* * *

W. S. Martin, M.D., Ludington, was honored recently with a Certificate of Appreciation from the Mason County Selective Service Board in recognition of his outstanding public service to the nation.

* * *

The Second Oklahoma Colloquy on Advances in Medicine will be held November 12-15, 1958, at the University of Oklahoma School of Medicine, Oklahoma City. For information and registration data, write the Division of Postgraduate Education at the University.

* * *

Otto O. Beck, M.D., Birmingham, and Robin C. Buerki, M.D., Detroit, recently were re-elected as Trus-

(Continued on Page 904)

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*HARDY, J. A.: *Obstet. & Gynec.* (Nov., 1956)

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*A complete report on these animal feeding studies is available on request. Address WISCONSIN ALUMNI RESEARCH FOUNDATION, P. O. Box 2217, Madison 1, Wis.

(Continued from Page 902)

tees of Michigan Hospital Service (Blue Cross). Newly elected to the Board was James W. Logie, M.D., Grand Rapids.

* * *

Theodore P. Eberhard, M.D., Ann Arbor, was elected First Vice President of the American Radium Society at its fortieth annual meeting in Hollywood, Florida, recently. Congratulations, Doctor Eberhard!

* * *



Lyndle R. Martin, M.D., Grosse Pointe, has won the Detroit Edison Company's annual Alex Dow Award for outstanding achievement. The award, established in 1946, was presented to Doctor Martin on April 30. Congratulations, Doctor Martin!

* * *

MSMS President George W. Slagle, M.D., Battle Creek, has been named one of six judges for Michigan's First Search for New Hospital Achievements contest. The contest, sponsored by the Michigan Hospital Association and Michigan Hospital Service, offers $4,000 in cash awards to hospital employes for the best ideas contributing to money-saving improvements in member hospitals of the Michigan Hospital Association.

* * *

The Institute of Ophthalmology of the Americas (of the New York Eye and Ear Infirmary) announces a series of Postgraduate Courses for Ophthalmologists, November 3, 1958 through January 9, 1959. For list of courses and complete information, write Tamar Weber, Registrar, 218 Second Avenue, New York 3.

* * *

A. D. Ruedemann, Sr., M.D., Detroit, is President, Lester D. McCullough, M.D., Detroit, is Secretary and Robert J. Crossen, M.D., Detroit, is Treasurer of the Detroit Ophthalmological Society.

* * *

The Health Insurance Institute reports that in the period from January 1 through December 31, 1957, over $141.5 million was paid to help cover the cost of hospital and doctor bills, and to replace income lost through sickness or disability, by insurance companies to the people of Michigan. This represents a 19.2 per cent gain over the 1956 figure of $118.7 million.

The national increase was 16.1 per cent. People throughout the United States received a total of $2.5 billion in benefits in 1957.

* * *

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(Continued on Page 906)



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(Continued from Page 904)

tion will be merged as of July 1, with William B. Graham, President of Baxter Laboratories of Chicago as President. The merger occurred at the fifty-first annual meeting of the APMA at Boca Raton, Florida.

* * *

Peter B. Rastello, M.D., Warren, is President of the Michigan Industrial Medical Association. Officers elected at the annual meeting held recently in Grand Rapids are: Wilfred N. Sisk, M.D., Kalamazoo, President-Elect; Duane L. Block, M.D., Dearborn, Vice President; William Jend, Jr., M.D., Detroit, Secretary-Treasurer.

* * *

Seward E. Miller, M.D., has been appointed Director of the newly organized Department of Industrial Health, University of Michigan School of Public Health. Doctor Miller is a 1931 medical school graduate of the University of Michigan.

* * *

Benjamin Barenholtz, M.D., Detroit, is President of the Michigan Society of Neurology and Psychiatry, and the Michigan District branch of the American Psychiatric Association. Other officers for 1958-59 are: Ivan A. LaCore, M.D., Pontiac, President-Elect; Eugene J. Alexander, M.D., Detroit, Secretary; John A. Belisle, M.D., Eloise, Treasurer.

* * *

Thomas Francis, Jr., M.D., has been re-elected for a three-year term as a member of the governing council of the National Academy of Sciences. Doctor Francis has been a member of this thirty-man governing board since 1948. Election to the group is considered one of the highest honors that American scientists can attain. Congratulations Doctor Francis!

* * *

The first electronic larynx, to aid the voices of thousands of cancer victims who have had their larynx removed, is called the Cooper-Rand Electronic Speech Aid. The new device is a six-ounce compact, self-powered transistorized oscillator, which can be adjusted to reproduce tones from 90 cycles to 120 cycles, the male fundamental voice range. A model for female users is available with the tone one octave higher. Inquiries may be addressed to the Rand Development Corporation, Cleveland, Ohio.

* * *

The American Medical Association, through its Council on National Defense, is sponsoring its Sixth Annual National Civil Defense Conference, on Saturday, June 21, Sheraton-Palace Hotel in San Francisco. For full particulars and program, write Frank W. Barton, Secretary AMA Council on National Defense, 535 North Dearborn Street, Chicago, Illinois.

* * *

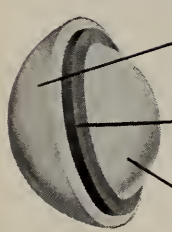
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(Continued on Page 908)

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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

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1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

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(Continued from Page 906)

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GEORGE KAMPERMAN ANNUAL LECTURESHIP INSTITUTED



On March 27, 1958, Wayne State University College of Medicine, officially notified George Kamperman, M.D., of the institution of The George Kamperman Annual Lectureship of Wayne State University College of Medicine, and personally handed to him a citation.

Dr. Kamperman graduated from the University of Michigan Medical School in 1907, following which he was an instructor in the Department of Obstetrics and Gynecology until 1912. He has practiced in Detroit since that time and was Chief of the Department of Obstetrics and Gynecology at Harper Hospital from 1922-1945. Since his retirement as Chief of this Department, he was appointed a member of the Board of Trustees of Harper Hospital.

He was a founding member and first president of the Detroit Gynecological Society and again served as president when this society was reorganized to form the Michigan Society of Obstetricians and Gynecologists. He was a founding member of the Central Association of Obstetricians and Gynecologists and is also a past president of this organization. He is a member of the American Gynecological Society and a founding member of the American College of Obstetricians and Gynecologists. He is a Fellow of the American College of Surgeons.

In recognition for his contributions to the specialty and his eminence as a teacher, the University of Michigan conferred upon him an honorary degree of Master of Science. Through his Residency Program at Harper Hospital, Dr. Kamperman has been responsible for the training of a large number of obstetricians and gynecologists in Michigan and other parts of the United States. The establishment of Maternal Mortality Studies in Detroit and Michigan resulted from his efforts.

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(Continued on Page 910)

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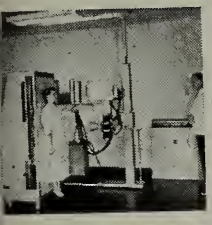
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*REFERENCE: J.A.M.A. 163: 359, 1957 (February 2)

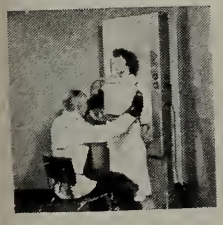
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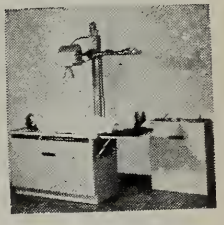
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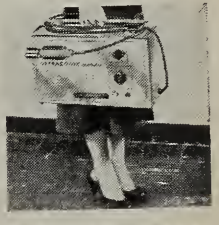
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(Continued from Page 908)

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* * *

The 11th Annual Conference on Aging, sponsored by the University of Michigan, Michigan State Medical Society et al, will be held in Ann Arbor, June 23-25, 1958. The theme will be "Social Gerontology and Its Applications." For program, write Dr. Wilma Donahue, Secretary, Rackham Memorial Building, Ann Arbor.

* * *

Who is primarily affected by the plague of housing decay? As in the case of tuberculosis, it is a plague of the people and not merely an affliction of the health director or his department. We could never expect to control tuberculosis without the understanding cooperation of the public. Tuberculosis services, case-finding programs, hospitals and sanatoria, rehabilitation services, financial aid for the patient and family, and the health department itself exist only because the public believes in them as a means toward success in the struggle against the tubercle bacillus. Health education provides the thread that binds the program together so that failure is denied.—HENRY F. VAUGHAN, Dr. P.H., *Am. J. Pub. Health*, March, 1956.

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MSMS members having taxable purchases to report are requested by the Michigan Department of Revenue

(Continued on Page 912)

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(Continued from Page 910)

to contact its Use Tax Division, Lansing, Michigan, for reporting forms (Ut-4a).

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Michigan Health Council Medical TV Shows over WJBK-TV in April included:

April 13—Dental Health—(Film—"Tooth and Consequences")

April 20—Gallbladder Surgery — (Film—"Gallbladder Surgery")

April 27—"Dental Radiology"—Rene Rochon, D.D.S., Joseph A. Molner, M.D., Albert G. Richards, all of Detroit.

VOLUNTARY HEALTH INSURANCE FOR THE AGED

An article in the April, 1958, issue of the *Chronic Illness Newsletter,* published bi-monthly by the AMA Council on Medical Service, describes some of the methods by which persons over sixty-five are being increasingly included in voluntary health insurance coverage. The article breaks down various groups within this over-65 population by type of protection or lack of it, describes a number of the programs currently under way by the Blue Shield-Blue Cross plans, private insurance companies, industry and others in extending voluntary health protection for these groups, and analyzes the socioeconomic forces behind a rising trend in coverage of this section of the population. Additional copies of this issue of the *Newsletter* are available on request from the Council.

MEDICAL MEETINGS AND CLINIC DAYS

1958		
June 20-21	Upper Peninsula Medical Meeting	Marquette
July 24-25	Coller-Penberthy Clinic	Traverse City
September 30-*October* 1-2-3	MSMS Annual Session	Detroit

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Communications

To the Editor:

The recent report of the Ad Hoc Committee of the Surgeon General of the United States, after weighing the advantages and disadvantages of BCG vaccination, states: "It is believed, however, that the advantages of vaccination outweigh the disadvantages for tuberculin negative persons who are exposed to a definite risk of infection, especially if they cannot be retested frequently with tuberculin."

This Committee recommended BCG vaccination for those groups recommended by the American Trudeau Society, the American College of Chest Physicians, the American Medical Association, and the Medical Advisory Committee of Research Foundation.

The specific groups recommended for BCG vaccination by the American Trudeau Society are: (1) doctors, medical students, and nurses who are exposed to tuberculosis; (2) all hospital and laboratory personnel whose work exposes them to contact with the bacillus of tuberculosis; (3) individuals who are unavoidably exposed to infectious tuberculosis in the home; (4) patients and employes in mental hospitals, prisons, and other custodial institutions in whom the incidence of tuberculosis is known to be high; (5) children and certain adults considered to have inferior resistance and living in communities in which the tuberculosis mortality rate is unusually high.

There have been numerous inquiries from all parts of the United States as to where BCG vaccine may be obtained. In order to assist those interested, the following information is offered:

BCG vaccine may be obtained by any licensed physician in the United States and its territories by writing to the laboratories of Research Foundation and the University of Illinois, the only institutions licensed to produce and distribute BCG in this country. The address of Research Foundation is: 70 West Hubbard Street, Chicago 10, Illinois.

Sol Roy Rosenthal, M.D., Ph.D.
Medical Director, Research Foundation, and Director, Institution for Tuberculosis Research, University of Illinois

L. A. Drolett, M.D.
Chairman MSMS Committee on Legislation
Lansing, Michigan

Dear Doctor Drolett:

Just read your Legislative Report of April 24. Thought it might gratify you to know that it strikes me as a masterpiece of service to those of us who closely follow what goes on in the Michigan Legislature.

I commend the contents of your report.

Sincerely,
S. L. Loupee, M.D.
Dowagiac, Michigan

GUIDE FOR COMMITTEES ON AGING

"Suggested Guides for Medical Society Committees on Aging" is the title of a new booklet being prepared by the AMA's Committee on Aging for use by state and county medical societies. The booklet contains suggestions as to (1) purposes of a medical society committee on aging; (2) membership and format; (3) tenure of members; (4) meetings, and (5) activities. Copies of the pamphlet will be available from the Council on Medical Service.

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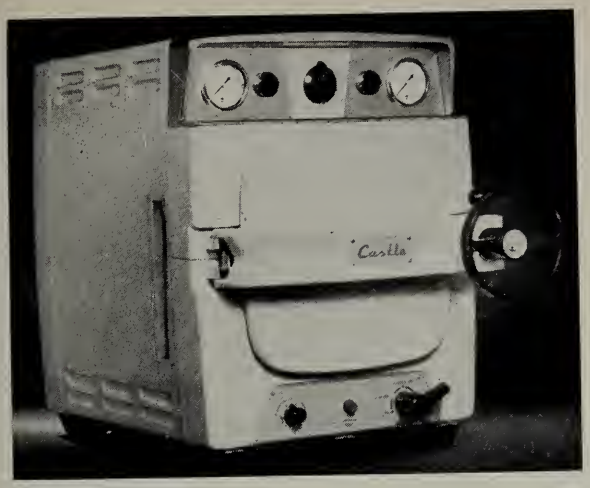
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Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

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Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

BOOKS RECEIVED

FAT CONSUMPTION AND CORONARY DISEASE. The Evolutionary Answer to this Problem. A basic approach to the prevention and arrest of coronary disease. By T. L. Cleave, M.R.C.P.(Lond.) Surgeon Captain, Royal Navy. With a Foreword by Percy Stocks, C.M.G., M.A., M.D.(Camb.) F.R.C.P.(Lond.), F.S.S., Senior Research Fellow, British Empire Cancer Campaign, late Reader in Medical Statistics, Galton Laboratory, University of London; Chief Medical Statistician, General Register Office. New York: Philosophical Library, 1958. Price $2.50.

UNITED STATES ATOMIC ENERGY COMMISSION. Progress in Peaceful Uses of Atomic Energy, July-December, 1957. Washington, D. C.: United States Government Printing Office, January, 1958. For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Price $1.25.

PHYSICIANS' DESK REFERENCE to Pharmaceutical Specialties and Biologicals. In five sections. An arbitrary page numbering plan to facilitate the compilation of this reference book. Section One (Pink), Alphabetical Index; Section Two (Yellow), Drug, Chemical and Pharmacological Index, Section Three (Blue), Therapeutic Indications Index; Section Four (White), Professional Products Information; Section Five (Green), General Professional Information. J. Paul Folsom, General Manager; Henrietta Bull, Managing Editor; J. E. Hoyen, Production Director; Robert C. Batterman, M.D., Editorial Consultant. Oradell, N. J.: Medical Economics, Inc., 1957.

CHOLESTEROL AS RELATED TO ATHEROSCLEROSIS. A Review of the Literature, 1950 to July, 1957. Prepared by Helen I. Mattill, Ph.D., Department of Physiology, College of Medicine, State University of Iowa, Iowa City, Iowa. This research was generously supported by a grant from the Cereal Institute, Inc., 135 South LaSalle Street, Chicago 3, A research and educational endeavor devoted to the betterment of national nutrition. Members of the Cereal Institute: Albers Milling Company, Los Angeles, California; Post Cereals Division, General Foods Corporation, Battle Creek, Michigan; General Mills, Inc., Minneapolis, Minnesota; Kellogg Company, Battle Creek, Michigan; Malt-o-Meal Company, Minneapolis, Minnesota; National Biscuit Company, New York, New York; The Quaker Oats Company, Chicago, Illinois; Ralston Purina Company, St. Louis, Missouri; Van Brode Milling Company, Inc., Clinton, Massachusetts.

FACTS ABOUT PHARMACY AND PHARMACEUTICALS. Material in this booklet may be reprinted without permission. Library of Congress Catalogue Card No. 58-9529. New York: Health News Institute, 1958. Price, $1.25 (Quantity prices quoted on request).

LIFE'S EBB AND FLOW. A Book of Poems. By Carlton F. Brown, M.D. New York: Exposition Press, 1958. Price $3.00.

A Michigan doctor has let his pen turn to poetry and gives us a book of poems which are very readable and very consoling. For relaxation, we think it is a valuable book.

URGERY IN WORLD WAR II: OPHTHALMOLOGY AND OTOLARYNGOLOGY. Medical Department, United States Army. Editor-in-Chief, Colonel John Boyd Coates, Jr., MC. Editor for Ophthalmology, M. Elliott Randolph, M.D. Editor for Otolaryngology, Norton Canfield, M.D. Associate Editor, Elizabeth M. McFetridge, M.A. Washington, D. C.: Office of the Surgeon General, Department of the Army, 1957. Price $5.00.

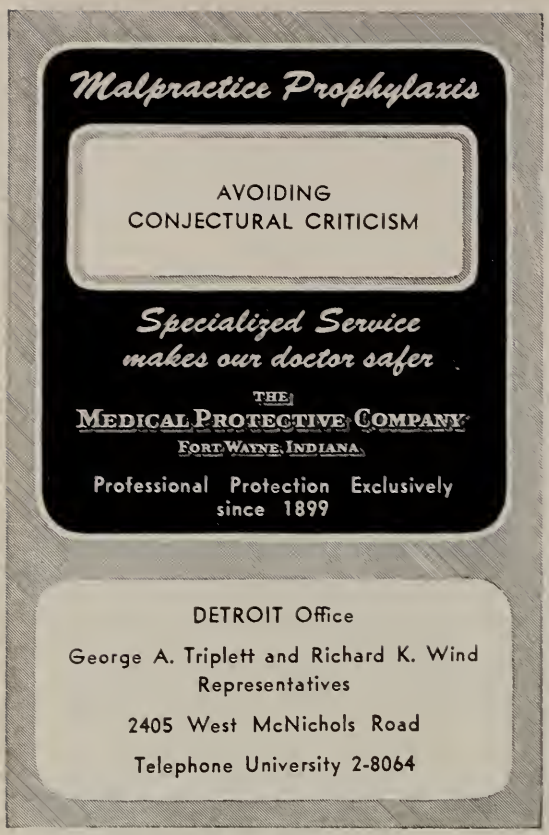
This remarkable book for the extremely low price is work of art. It goes into detail concerning the ophthalmologic and otolaryngologic service during the war. It gives details of establishing units, numbers of men to be available, qualifications of the men to do the work, and a very large amount of valuable material in every line in the field. It is well printed and well illustrated, with good type, and is easily readable. It would be a very valued addition to the library of any ophthalmologist or otologist, especially if they served during any war. We are pleased with the book and have found some very valuable ideas in it.



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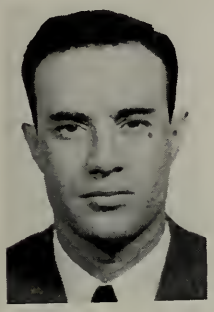
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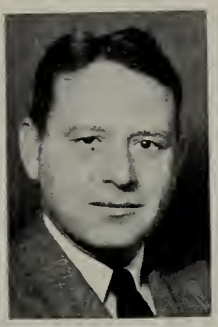
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VOLUME 57 JULY, 1958 NUMBER 7

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MANUEL FERNANDEZ, M.D.



C. PAUL HODGKINSON, M.D.



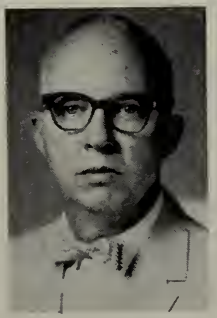
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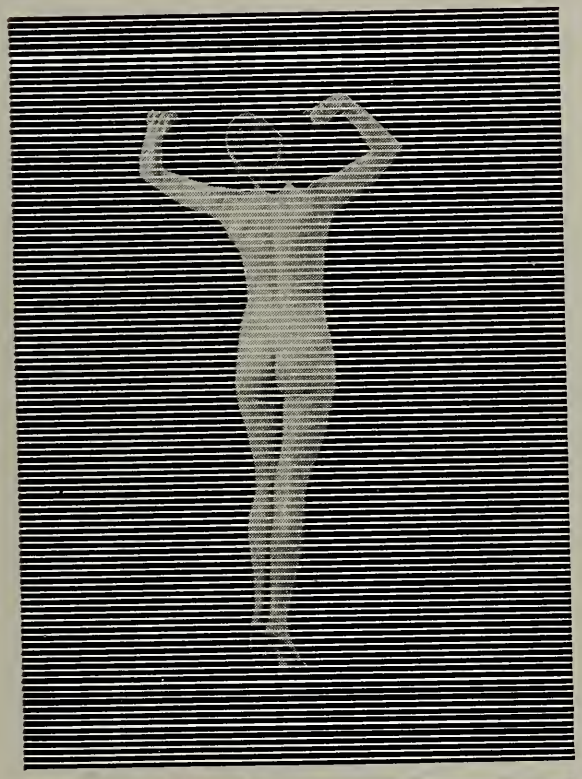
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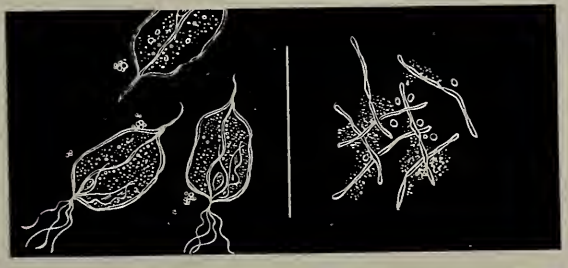
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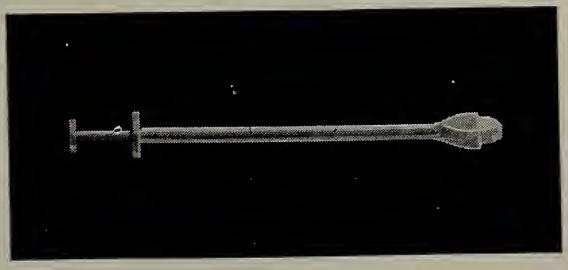
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Ninetieth Anniversary

Wayne State University College of Medicine Alumni Association held its ninetieth alumni reunion and clinic program on May 7, 1958, in Detroit. A daytime and evening program started with registration at 8:00 a.m. All programs were at the Fort Shelby Hotel.



MEMBERS OF THE CLASS OF 1908

(Left to right) Henry L. Ulbrich, M.D., Clayton J. Ettinger, M.D., J. Milton Robb, M.D. (valedictorian), John S. Van Loon, M.D., and William J. Cassidy, M.D.

At the annual business meeting, Clarence I. Owen, M.D., was selected as president-elect. The program was a surgical symposium on "Biliary Tract Disease." Participants were Sol G. Meyers, M.D. Detroit, Michigan, Clinical Professor of Medicine, Wayne State University College of Medicine; James E. Lofstrom, M.D., Detroit, Michigan, Professor and Chairman, Division of Radiology, Wayne State University College of Medicine; Alfred M. Large, M.D., Detroit, Michigan, Assistant Professor of Clinical Surgery, Wayne State University College of Medicine.

The first paper presented, "State of the Nation's Health and National Health Problems," by Leonard A. Scheele, M.D., former Surgeon-General of the United States Public Health Service, was a careful study of health information, improvements, and trends.

The second paper, "Medical Writing" by Jonathan Forman, M.D., Editor of the *Ohio State Medical Journal,* was primarily a treatise on medical writing, its importance, and each doctor's need to do medical writing himself.

The luncheon following the morning program was through the courtesy of Parke, Davis & Company.

The afternoon program included two papers: "Cancer Detection in the Office of the Generalist," presented by John S. DeTar, M.D., Milan, Michigan, past president, American Academy of General Practice; "Acute Interstitial Pancreatitis —Fact or Fiction," presented by Carl A. Moyer, M.D., St. Louis, Missouri, Bixby Professor of Surgery, Washington School of Medicine. These papers were followed by a panel discussion on "Care of the Diabetic Pregnant Patient." The panel consisted of Robert B. Leach, M.D., Detroit, Assistant Professor of Medicine, Wayne State University College of Medicine; George C. Thosteson, M.D., Detroit, Associate Clinical Professor of Medicine, Wayne State University College of Medicine; and Harold Fachnie, M.D., Detroit, Assistant Professor of Obstetrics and Gynecology, Wayne State University College of Medicine.



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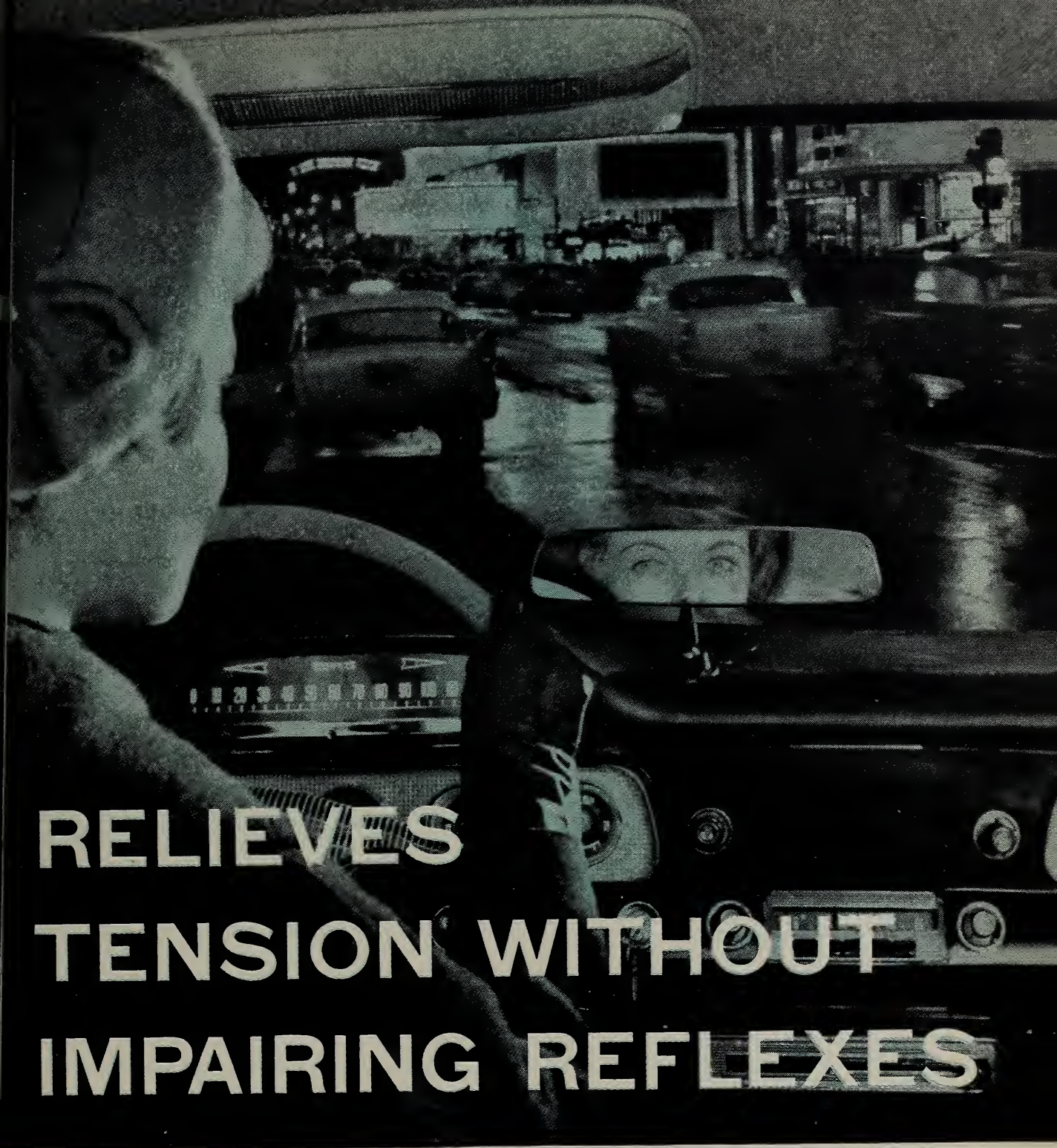
(Left to right) Lawrence Pratt, M.D., Gordon B. Myers, M.D., and Leonard A. Scheele, M.D.

Trustees of the Medical Library Fund, Inc., held their annual meeting following the general meeting.

A reception at 6:15 was followed by the annual Alumni Reunion Banquet, at which Clarence I. Owen, M.D., was toastmaster. Greetings from the College were given by Dr. Gordon H. Scott. Recognition was given the class reunion groups and members of the class of 1958 were introduced.

Alumni awards were presented by Don W. McLean, M.D., honorary president, Medical Alumni Association. The Medical Annual Sophomore

(Continued on Page 932)



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*Marquis, D. G., Kelly, E. L., Miller, J. G., Gerard, R. W. and Rapoport, A.: Ann. New York Acad. Sc. 67: 701, May 9, 1957.

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(Continued from Page 930)

Award was given to Ronald Seltzer, and the Medical Alumni Senior Scholarship Award was presented to Jerry R. Croteau.

The Class of 1908 Golden Anniversary Diplomas were presented by Irwin W. Sander, M.D., Class of 1929, with the response by James Milton Robb, M.D., Class of 1908. Only ten members of this class are living. Those attending were: Clayton J. Ettinger, M.D., Detroit; J. Earl McIntyre, M.D., Lansing; Daniel J. O'Brien, M.D., Lapeer; Henry W. Paddell, M.D., London Ontario; James Milton Robb, M.D., Detroit; John S. Van Loon, M.D., Detroit; and Henry L. Ulbrich, M.D., Grosse Pointe. Those unable to attend were William J. Cassidy, M.D., Detroit; Fred H. Cole, M.D., Detroit, and John H. Elias, M.D., Glouster, Ohio.

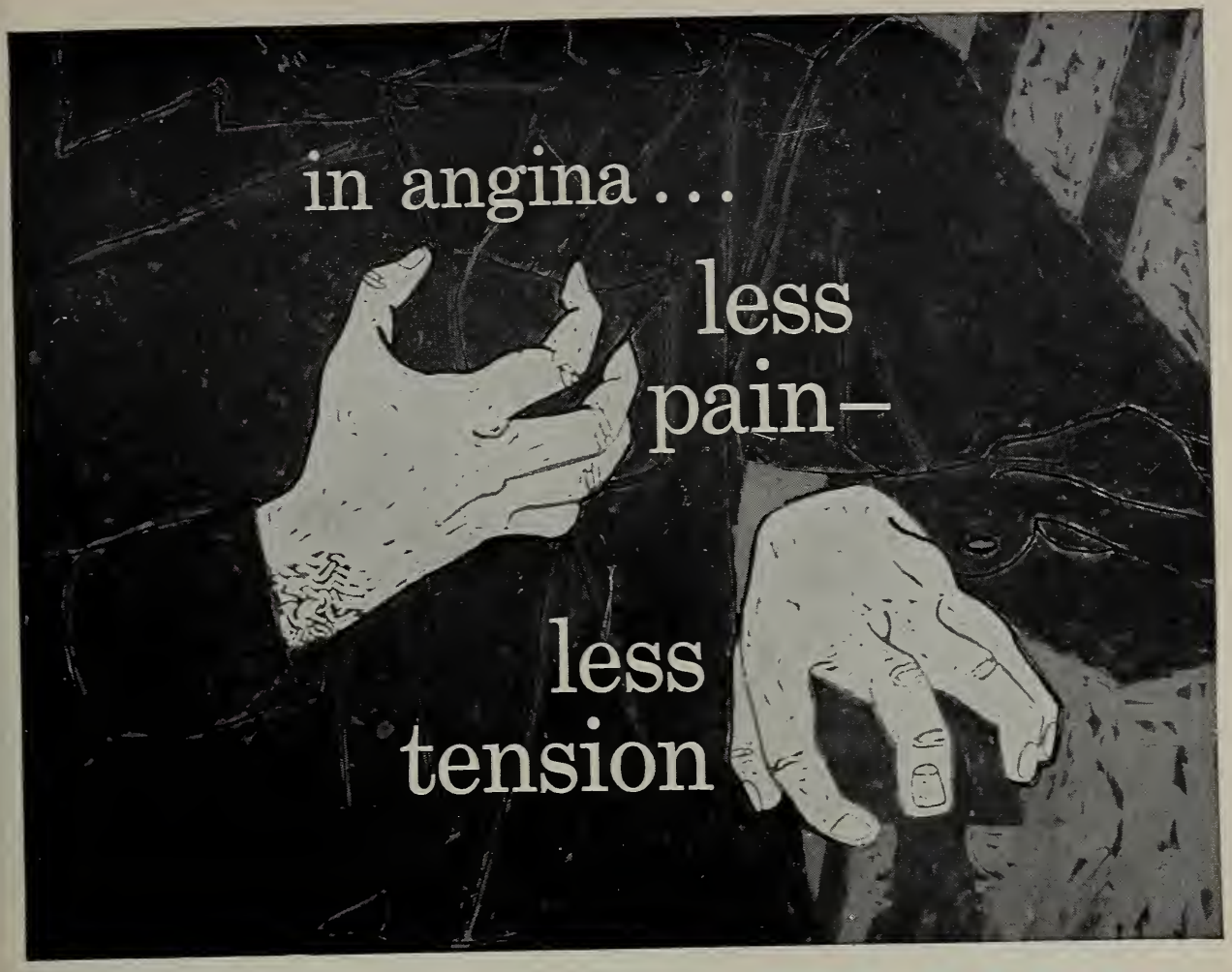
The ceremonial presentation consisted of a review of each man's medical history, condensed but interesting. Following this was the presentation of the Distinguished Service Citations given by Lawrence A. Pratt, M.D., President of the Medical Alumni Association. Gordon B. Myers, M.D., of the faculty, was cited for outstanding teaching service over the years. Leonard A. Scheele, M.D., of the Class of 1934, was cited for his long years of service in public health, and for almost nine years as Surgeon-General of the United States Public Health Service.

Dr. Reginald Luxton, of Manchester, England, gave a very challenging address, "A Prescription for Health." The final part of the program was the installation of the new president, Theodore I. Bergman, M.D., of the Class of 1932. The Medical Alumni Association gathering has been an outstanding feature in Michigan for a great many years, and this year's assembly marked the ninetieth anniversary of the establishment of the College.

THE DOCTOR EXPLAINS TO THE PATIENT

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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

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Michigan Doctors Active in National Science Fair



SCENE OF AWARDS LUNCHEON

The American Medical Association was host at the awards luncheon held in the Industrial Mutual Auditorium, Flint, Michigan, with George W. Slagle, M.D., presiding.

Offering their congratulations to the winners of the American Medical Association's top honors in the basic medical science exhibits entered in the National Science Fair in Flint, May 7-10, were Otto J. Preston, M.D., chairman of the Fair's executive committee and immediate past president of the Genesee County Medical Society; Clayton K. Stroup, M.D., president of the county society, and George W. Slagle, M.D., president of the Michigan State Medical Society.

The winners were David R. Brown, fifteen, Minneapolis, Minnesota, for his exhibit on "Humeral Transplants," and Clare L. Chatland, sixteen, Missoula, Montana, for her work with hypersensitized mice. The AMA awards consisted of a citation and invitation to exhibit their work at

(Continued on Page 936)



AMA SCIENCE AWARD WINNERS RECEIVE CONGRATULATIONS

(Left to right) Otto J. Preston, M.D., chairman of Science Fair executive committee; David R. Brown, Minneapolis; Clayton K. Stroup, M.D., president, Genesee County Medical Society; Clare L. Chatland, Missoula; George W. Slagle, M.D., president, Michigan State Medical Society.



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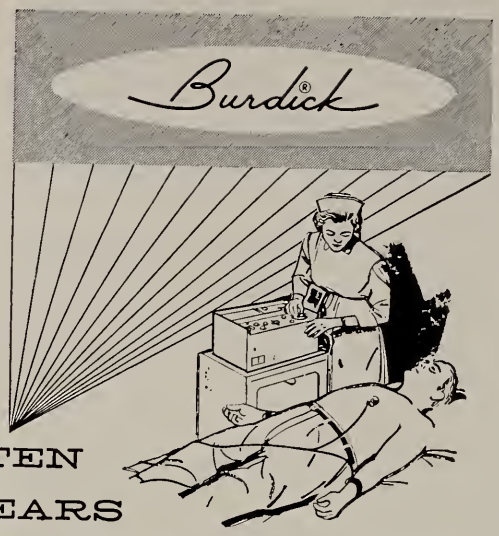
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(Continued from Page 934)

the 107th annual meeting in San Francisco, June 23 to 27.

Doctor Preston presented the citations at a special AMA luncheon, and Doctor Slagle acted as master of ceremonies. More than 820 students, teachers, regional science fair sponsors, and press and medical representatives attended in the Industrial Mutual Auditorium. Doctor Stroup was one of the honored guests.

Clare's and David's exhibits were chosen from a field of 281 entries from forty-one states, the District of Columbia, Alaska, Hawaii, Germany, and Japan by an AMA judging committee headed by Dr. Alphonse McMahon, St. Louis; Dr. Stanley P. Reimann, Philadelphia; Dr. Henry R. Viets, Boston, and Dr. Thomas G. Hull, Chicago—chairman and members, respectively, of the AMA Council on Scientific Assembly.

The annual Ninth National Science Fair, sponsored by Science Clubs of America, Washington, D. C., was the largest and most successful in history. The exhibits were viewed by more than 30,000 students and adults in the Ballenger Field House on the Flint Junior College Campus, and all previous attendance records were broken. The AMA awards, which were presented for the third consecutive year, are the annual highlight capping the medical profession's program to encourage talented students to study the medical sciences. Next year, the Fair will be held in Hartford, Connecticut, and the following year in Indianapolis, Indiana.

COMMITTEE STUDIES BASIC PROGRAMS

One of the first projects of the Committee to Study AMA Objectives and Basic Programs will be to send out a questionnaire inviting suggestions and criticisms of the Association. This questionnaire will be based on the following four points which were listed by the House of Delegates when the committee was organized last December: (1) redefining the central concept of AMA objectives and basic programs; (2) placing more emphasis on scientific activities; (3) taking the lead in creating more cohesion among national medical societies, and (4) studying socioeconomic problems.

The questionnaires will be sent to not only state and county medical societies, specialty groups and other national medical organizations but also to a probability sample of more than 3,000 physicians chosen systematically from the new AMA directory. The latter sample will include both AMA members and nonmembers.

Members of the committee include: Drs. Lewis A. Alesen, chairman, Los Angeles; Thurman G. Givan, Brooklyn; Milford O. Rouse, Dallas; James Z. Appel, Lancaster, Pennsylvania; Hugh H. Hussey, Washington, D. C., and Raymond M. McKeown, Coos Bay, Oregon.

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Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris. Circulation (Jan.) 1958.

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Heart Beats

MHA EXECUTIVE DIRECTOR TO JOIN TEXAS HEART ASSOCIATION



Ernest T. Guy, Detroit, Executive Director of the Michigan Heart Association for the past five and one-half years, has been appointed Executive Director of the Texas Heart Association with headquarters in Houston, it was announced recently. Mr. Guy was the first layman to become MHA Executive Director, the position having been filled by medical doctors during the Association's first three years of existence.

Mr. Guy joined the Michigan Heart Association on May 15, 1950, as Public Relations Director and was named Executive Director on January 1, 1953. In October, 1952, he released to the nation's press the startling announcement concerning the first successful use of a "mechanical heart" on a human patient which maintained blood circulation while surgeons operated on the living heart. The "mechanical heart" was developed by a medical-engineering team headed by F. D. Dodrill, M.D., Detroit, current MHA President, and it was rated as one of the top ten scientific developments of 1952.

During Mr. Guy's tenure as Executive Director, the Michigan Heart Association has grown from a small office in Detroit with two employes in 1953 to twenty-two employes at present with regional offices located in four major areas of the State. The Association's income has increased 335 per cent during the same period of time.

EARLY REGISTRATION URGED FOR SCIENTIFIC SESSIONS OF AMERICAN HEART ASSOCIATION

As an inducement to early registration for attending the American Heart Association's Annual Scientific Sessions in San Francisco, October 24-26, all physicians who register prior to the meeting will receive for the first time this year an advance complimentary program containing abstracts of the proceedings. The program will be sold for $1.00 at the meeting. Registration and accommodation forms are now available from the Association, 44 East 23rd Street, New York 10, N. Y.

Following is a tentative schedule of the program:

Friday, October 24.—A morning session on genetics will be presented jointly by the Heart Association and the American Society for the Study of Arteriosclerosis. The Society is holding its Annual Meeting to coincide with the AHA Scientific Sessions this year for the first time. Concurrent sessions of general interest to physicians will also be held Friday morning under sponsorship of the AHA Councils on Circulation and on Cardiovascular Surgery.

A session sponsored by the Association's Council on Rheumatic Fever and Congenital Heart Disease will be held Friday afternoon, as will a symposium conducted jointly by the AHA Council on Circulation and the Microcirculatory Conference. Friday evening's session will be on the subject of "Instrumental Study of the Heart and Circulation."

Practicing Physicians' Session.—An all-day session for physicians in general practice and for internists will be held concurrently on Friday under sponsorship of the Council on Clinical Cardiology. Presented initially last year, it is essentially a presentation of clinical problems in cardiovascular disease and has again been classified by the American Academy of General Practice as acceptable for Category II credit for Academy members.

Saturday, October 25.—Scheduled for Saturday morning are a session on Applied Cardiovascular Research; the Lewis A. Conner Memorial Lecture by John H. Gibbon, Jr., M.D., Professor of Surgery, Jefferson Medical College, Philadelphia, on "Maintenance of Cardio-Respiratory Functions by Extracorporeal Circulation;" the George E. Brown Memorial Lecture by Lewis Thomas, M.D., Professor and Chairman, Department of Pathology, New York University College of Medicine on "The Role of Hypersensitivity in Cardiovascular Disease and the presentation of the Albert Lasker Award of the American Heart Association for cardiovascular research.

On Saturday afternoon, joint panels on "Emotional and Endocrine Aspects of Cardiovascular Disease" and "Effects of Hemodynamics and Vascular Injury" will be presented in conjunction with the American Society for the Study of Arteriosclerosis.

Sunday, October 26.—The schedule for Sunday morning includes simultaneous sessions to be con-

(Continued on Page 940)

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1. Meprobamate is more widely prescribed than any other tranquilizer. Source: Independent research organization; name on request.

2. Baird, H. W., III: A comparison of Meprospan (sustained action meprobamate capsule) with other tranquilizing and relaxing agents in children. Submitted for publication, 1958.

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EARLY REGISTRATION URGED FOR AHA SESSIONS

(Continued from Page 938)

ducted by the Councils on Clinical Cardiology, High Blood Pressure Research, and Basic Science. A special program, "Rewards of Research," designed to interest physicians as well as laymen will be held Sunday afternoon, as will the program on "Prevention of Rheumatic Fever." The Association's Annual Dinner is scheduled for Sunday evening.

In addition, the program will include the showing of a number of medical motion pictures. Also, a section of scientific and industrial exhibits will be provided. Plans are under way to present an award for the outstanding scientific exhibit on display.

The Annual Meeting of the Assembly to review national policies and activities of the Association will be held on Monday, October 27, and Tuesday, October 28. The Assembly convenes on Monday morning to hear a keynote address by Dr. William P. Shepard, 2nd Vice President, Health and Welfare Division, Metropolitan Life Insurance Company.

Six Assembly Panels will be in session on Monday. The full Assembly, national delegate body of the Heart Association, will meet Tuesday morning to review Panel recommendations and to elect officers and Board members of the Association.

SCIENTIFIC SESSIONS IN HAWAII TO FOLLOW AHA MEETING

Following the 31st Annual Scientific Sessions of the American Heart Association in San Francisco, October 24-26, the Hawaii Heart Association will conduct a post-meeting tour which includes two days of cardiological scientific sessions in Honolulu on October 31 and November 1. Arrangements to participate may be made through H. Douglas Chisholm, Associate Director American Heart Association, 44 East 23rd Street, New York 10, N. Y., or directly through the American Express Company, 65 Broadway, New York, N. Y.

PROCEEDINGS OF HYPERTENSION MEETING PUBLISHED

The Proceedings of the Annual Meeting of the American Heart Association's Council on High Blood Pressure Research, which contain up-to-date symposium on mineral metabolism as related to arterial hypertension, are now available. The Council met in November, 1957.

The 109-page illustrated volume includes discussions by authorities on such subjects as *"The Relationship of Sodium and Water Ratios to Hypertension," "Exploration of the Renal Excretory Mechanism with Radioactive Sodium and Potassium," "Chronic Sodium Chloride Toxicity and the Protective Effect of Potassium Chloride."*

Also included in the volume are reports on the current status of surgical treatment, chemotherapy, epidemiology of hypertension and on instrumental techniques.

The volume, sixth in a series on Hypertension based on the Council's annual meetings, is obtainable through the American Heart Association, 44 East 23rd Street, New York 10, N. Y., or through local Heart Associations at $2.50 a copy. A special pre-publication rate of $2.00 a copy will be given for orders received before June 1, 1958.

APPLICATIONS FOR RESEARCH SUPPORT NOW BEING INVITED BY AMERICAN HEART ASSOCIATION

Applications by research investigators for support of studies to be developed during the fiscal year beginning July 1, 1959, are now being accepted by the American Heart Association.

The deadline for Research Fellowship applications and Established Investigatorships is September 15, 1958. Applications for Grants-in-Aid must be made by November 1, 1958.

Fund for Association-supported research in the cardiovascular field are provided by public contributions to the Heart Fund. At least half of all funds received by the American Heart Association's National Office are allocated to research. Almost $31,500,000 has been allocated for research support by the Association and its state and local affiliates and chapters in the past 10 years.

TWO NEW LEAFLETS

The personal, human qualities of medical practice are emphasized in two new American Medical Association leaflets designed for the general public. The first, "Do *You* Like to Make Decisions?", states that the physician applies the "skill of his profession with the art of his understanding" in prescribing a specific treatment suited to the patient's individual needs. In selecting a particular treatment, the doctor is guided by his knowledge of the patient and his faith in his own judgment. The second leaflet—"The Fifth Freedom"—points out every American's basic right to choose not only where he will live or the church he will attend but also the physician in whom he has the greatest confidence. Free choice and mutual understanding are essential to the formation of a good doctor-patient relationship.

Both pamphlets have been distributed in recent months to state and county medical societies for distribution at local fairs and similar public gatherings.

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RADIATION HAZARDS

The reduction of radiation hazards whenever practicable and the facing up to those that must be tolerated was advocated recently by C. W. Shilling, M.D., Deputy Director, Division of Biology and Medicine, Atomic Energy Commission, at a meeting of occupational health specialists in Atlantic City, New Jersey, April 22. 1958.

Dr. Shilling said:

"Obviously the risk from the ever-present background of radiation has to be taken. We cannot get away from it, for even if we lived in a balloon, thus escaping radiation from the earth's crust, we would receive additional radiation from cosmic rays. Also, it seems obvious that we must take our chances with the medical use of the x-ray and by-products of atomic energy, both for diagnosis and treatment. I would urge, however, that the roentgenologist become thoroughly familiar with this problem and use x-ray as sparingly as possible.

"The next question we must face and answer is, *must we continue to live with radioactive fallout?* To this, the answer is 'yes,' for we must continue testing of the various types of nuclear weapons not only to study their characteristics but also, and perhaps more importantly, to study ways and means of protecting populations from their effects, should they ever be used in warfare. We must gamble with the probability of radiation damage to a few individuals in order to secure the survival of the total society."

Concerning atomic powers to be generated by nuclear reactors, Dr. Shilling said that the risk of accidental release of radioactive contamination is extremely low. He pointed out that the atomic energy program has made an excellent safety record in its operations to date and that there is every reason to believe that, under the safeguards in effect, this good record will continue as the atomic power industry develops. Dr. Shilling observed that the cheaper atomic power would undoubtedly revolutionize the civilization of many areas of the globe and that better living conditions would definitely follow. The incalculable benefits derived from isotopes were also described by Dr. Shilling. He said, "It has been estimated that the use of isotopes in industry already is resulting in cost savings of $295 million to $485 million annually. This does not count the enormous advancement of the frontiers of knowledge through the use of isotopes in research, nor does it count the value to humanity in the diagnosis and treatment of disease."

Dr. Shilling stated that the National Academy of Sicences report indicates that the amount of radiation to the gonads from fallout, if testing is continued at the level of the past five years, probably will amount to 0.1 roentgen for the average person in the United States during his reproductive lifetime. This should be compared, he said, with the average reproductive lifetime dose to the gonads of 4.3 roentgens from natural or background radiation and 3.0 roentgens from the medical use of x-rays.

The animal experimental work of the Atomic Energy Commission, Dr. Shilling said, has indicated that, following exposure to large amounts of radiation (enormous when compared to fallout), there is an increase in the incidence of cancer, there is an aging effect, and there is definite life shortening, but this is with exposures at thousands of times greater than the average received from all fallout from 1945 to date.

With regard to genetic effects, Dr. Shilling said:

"The radiation produced by fallout from atomic weapons tests as well as from present and future peaceful applications of nuclear energy will result in additional mutations in human genes. The number of these cannot be estimated accurately at this time. At the current rate of irradiation from fallout, among the four million children born each year in the United States, perhaps from a hundred to several thousand may carry as a result of this irradiation a mutated gene. At most, a small percentage of these genes will not produce any noticeable effect in the first generation. Only slowly, over hundreds of years will the majority of these radiation-induced genes become apparent, in a few individuals at a time, usually by causing a less than normal development or functioning of the person concerned. It will be impossible to identify these individuals among the large number of similar ones, affected by genes already present in the population due to accumulated spontaneous mutations.

"No measurable increase in defective individuals will be observable at any time as the result of current weapons' tests, since the few radiation-induced defectives will not change measurably the number of about 40,000 defectives who will occur spontaneously among the four million births of each year in the United States. It may be pointed out that no significant change in the percentage of malformed children has been observed among those conceived after the war whose parents had been exposed to the atomic bombs in Hiroshima and Nagasaki."

Dr. Shilling presented the C. O. Sappington Memorial Lecture, part of the program of the Industrial Medical Association. This group, together with the American Conference of Governmental Industrial Hygienists, the American Industrial Hygiene Association, the American Association of Industrial Nurses, and the American Association of Industrial Dentists, comprises the week-long National Industrial Health Conference, which has brought together over 3,000 leading occupational health specialists. The conference is devoted to an exchange of the latest information on the control of occupational health hazards and on general health maintenance of workers.

(Continued on Page 944)



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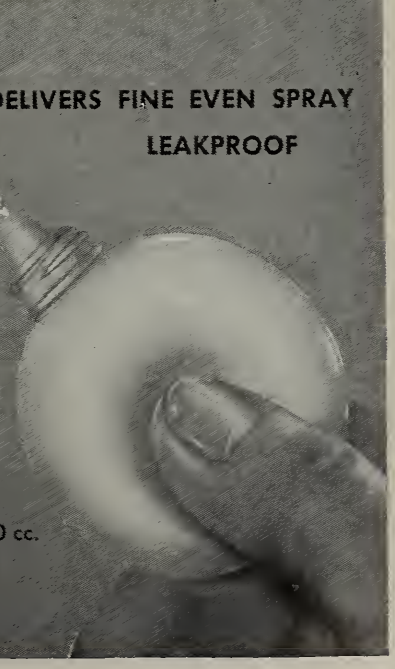
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(Continued from Page 942)

REBUILDING HISTORIC MACKINAC ISLAND

The Journal readers, particularly those who are interested in the Beaumont Memorial and the entire Mackinac Island restoration program, will be interested in knowing that a modern museum is being installed in the refurnished Fort Mackinac.

Highlighting the displays in the museum will be a series of six large action-filled murals painted by artist Dirk Gringhuis of Lansing. Mr. Gringhuis has been the official cover artist for the MSMS Journal for the past two years.

Other color displays, including a Beaumont section, will recreate an exciting event in the Fort's 200-year-old history. The above activity has been sparked by the Mackinac Island State Park Commission under the direction of W. S. Woodfill, chairman. Dr. Eugene T. Petersen, Curator of the Michigan Historical Museum in Lansing, is director of the project.

Other associations have been following the lead of the Michigan State Medical Society and the Beaumont Memorial Foundation in restoration of this historic Island to its grandeur of the early Eighteen hundreds. For example, the Michigan Society of Architects presently is restoring the Biddle House on Market Street.

Appropriately, the Beaumont Memorial Foundation is expanding its medical museum in the Beaumont Memorial guided by the dedicated efforts of Otto O. Beck, M.D., of Birmingham, past president of the State Society and President of the Foundation.

It is interesting to note that the members of MSMS again have set a pattern—by their sponsorship and maintenance of the Beaumont Memorial—which bids fair to succeed in an over-all rebuilding and restoring of all the historic "shrines" on Mackinac Island.

TRAFFIC ACCIDENTS

Human failure, rather than the condition of road or vehicle, is the largest factor in causing traffic accidents. Poor judgment, slow reaction time, faulty mental attitudes and physical and emotional disabilities are basically responsible for most accidents.

Seward E. Miller, M.D., director of the Institute of Industrial Health at the University of Michigan, speaking at the conference on Medical Aspects of Highway Safety, held at the University of Michigan Medical Center, predicted that one person in every ten will be killed or injured in a motor vehicle accident in the next fifteen years. Dr. Miller termed this "one of the nation's largest unsolved health hazards."

The effect of the mounting death rate (40,000 killed in 1957) is that conscientious people are coming to family physicians to learn whether they have the physical and emotional ability to meet the demands of day-to-day driving.

He urged the 150 physicians and specialists in his audience to measure the driving ability of these patients with six major questions:

1. Is the patient likely to suffer excessive fatigue?
2. Is he apt to lose consciousness, or become confused?
3. Are his vision and hearing adequate to cope with today's high-speed highways?
4. Does he have the physical and mental ability to manipulate the controls of the vehicle?
5. Does he have absolute emotional control of himself or does he show signs of anti-social behavior?
6. Is he subject to temporary impairment of physical and mental abilities because of drugs, alcohol, infection or medical treatment?

Dr. Miller pointed out that patients with convulsive disorders, heart disease and certain forms of diabetes, risk their lives every time they get behind the wheel of an automobile.

Other dangerous disabilities result from hypertension, particularly through complications in the brain, kidney, heart or eyes. Any form of dizziness or vertigo also disables a driver, as does Ménière's disease until it is controlled.

The great bulk of personal injury accidents occur among drivers who are only involved once in a collision. The small minority of drivers who get into trouble repeatedly are special cases, often characterized by low intelligence, youthfulness or supreme egotism.

MICHIGAN HEALTH COUNCIL MEMBERSHIP SPIRALING HIGHER

Thirteen new voting members, two associate members and ten new chapters were welcomed into membership of the Michigan Health Council at a spring dinner meeting held May 12 at Kellogg Center, Michigan State University.

A meeting of the co-sponsors for the twelfth annual Michigan Rural Health Conference was conducted after the membership ceremonies.

The thirteen new voting members of the Michigan Health Council are the Michigan League for Nursing, Michigan State Dental Assistants, Michigan Practical Nurses Association, Michigan Department of Agriculture, Michigan Chapter —National Multiple Sclerosis Society, Michigan State Association of Supervisors, Michigan Chapter of the American Physical Therapy Association, Michigan State Association of Accident and Health Underwriters, Michigan State Association of Life Underwriters, Michigan Department of Mental Health, Consulting Engineers of Michigan, Michigan Office of Hospital Survey and Construction and Michigan Office of Vocational Rehabilitation.

(Continued on Page 946)



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MICHIGAN HEALTH COUNCIL

(Continued from Page 944)

Associate Members Added

The Michigan National Bank and Michigan Associates (a large Lansing consulting engineering firm) were awarded recognition as associate members. An associate is a new classification for individuals or corporations which are not health organizations but have an interest in the progress of the Michigan Health Council and its aims and purposes.

The ten new chapters of the Michigan Health Council which received certificates were the Algoma Health Council, Clarence Township Health Council, Hamtramck Inter-Agency Organization, Maple Grove Community Council, Haslett Community Council, Port Huron Junior Chamber of Commerce, Warren Community Council and Wyandotte Health Council. The term "chapter" is a new designation for community health councils which has been adopted by the Finance and Membership Committee and approved by the Board of Trustees of the Michigan Health Council.

Expansion Anticipated

There are now fifty-eight voting members, two associate members and eighty-four chapters. Hugh W. Brenneman, Secretary of the Michigan Health Council, announced that five more applications for voting memberships have been received. He indicated that with the present progress in membership, the Board of Trustees hoped to have ninety voting member organizations and associates as well as 100 Health Council chapters by the end of 1958. This would enable the Health Council to expand greatly its programs and projects to Michigan communities.

J. K. Altland, M.D., president of the Michigan Health Council, announced that during the year, much emphasis will be given to "health careers" through the weekly television programs of the Councils and to the expansion of the M.D. Placement Program.

During the membership ceremonies, Marvin L. Niehuss, Health Council vice president; H. B. Zemmer, M.D., medical advisor, and Mr. Brenneman gave inspirational talks on the past, present, and future activities and plans of the Health Council.

Conference Date Set

The dates of the twelfth annual Michigan Rural Health Conference have been set for April 8 to 9, 1959, at the Kellogg Center, Michigan State University, by the co-sponsors at their business meeting following the dinner program.

Harry A. Towsley, M.D., is general chairman for the 1959 Conference. He stated that the 1958 Conference had been hailed as the finest health conference for professional and lay people ever held in Michigan and had received nationwide publicity on many of the talks given by the fifty-six speakers on the conference program. Doctor Towsley also read many suggestions received for subjects, topics and participants for next year's program and urged that members as well as nonmembers of the Michigan Health Council send in suggestions.

John A. Doherty, executive secretary, said he hoped that the 1959 Conference will draw an attendance of close to 1,000 rural and urban residents as well as representatives from health organizations and high school students interested in health careers.

HIGHLIGHTS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of May 14, 1958

- **Progress Report on New MSMS Headquarters Building.** Architects Yamasaki and Jarrett will have preliminary plans ready for presentation of The Council in July; the final plans will be presented to The Council in September, for referral to the House of Delegates on September 27, 1958.

 The Bruce Publishing Company of St. Paul, Minnesota, long time publishers of JMSMS, offered to contribute $1000.00 for the new MSMS building, which generous offer was accepted with high thanks.
- **New Blue Shield Contract.** Michigan Medical Service Vice President Jay C. Ketchum reported that on May 14, the Insurance Department had approved the new contract which will be publicized as of June 1, 1958. The Executive Committee of The Council instructed that every MSMS member be sent by mail full information and a specimen copy of the new Blue Shield contract.
- **President G. W. Slagle, M.D.,** Battle Creek, reported on his official attendance at meetings of the Ohio State Medical Association in Cincinnati, of the Medical Society in the State of Wisconsin in Milwaukee, at the National Science Fair in Flint; he urged more active participation in this last activity (MSMS this year joined with the Genesee County Medical Society in underwriting the cost of the souvenir program).

 The suggestion that the two winners of the AMA Awards at the National Science Fair be invited to one of the Michigan Delegates' Breakfasts at the forthcoming AMA Annual Session in San Francisco was approved.
- **Appointments:** Dale L. Kessler, M.D., Grand Rapids, was appointed as MSMS Representative to the North Central District Blood Banks

(Continued on Page 950)

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1 **INITIATE THERAPY WITH 'DIURIL'.** 'DIURIL' is given in a dosage range of from 250 mg. twice a day to 500 mg. three times a day.

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Smooth, more trouble-free management of hypertension with 'DIURIL'

HIGHLIGHTS OF THE COUNCIL

(Continued from Page 946)

Clearing House; T. Sid Conover, M.D., of Flint, was appointed as a member of Committee to Arrange Program for State Board of Alcoholism; H. E. Cope, M.D., Lansing, was appointed as member of the 1959 Michigan Clinical Institute Committee on Arrangements; L. Fernald Foster, M.D., Detroit, and R. L. Novy, M.D., Detroit, were nominated to the Michigan Hospital Service Medical Advisory Committee; I. A. LaCore, M.D., Pontiac, was appointed as MSMS Representative to the Fifth Annual Conference of Mental Health Representatives to be held in Chicago.

- **Liaison Study Committee on Hospital Staff Payments by Michigan Medical Service.** A committee requested by the MMS Board was appointed: Muir Clapper, M.D., Detroit; B. E. Brush, M.D., Detroit; R. B. Nelson, M.D., Ann Arbor; H. C. Mack, M.D., Detroit; Julian E. Priver, M.D., Detroit; O. B. McGillicuddy, M.D., Lansing; John R. Pedden, M.D., Grand Rapids; J. W. Rice, M.D., Jackson, and C. K. Stroup, M.D., Flint.

- **Legal Counsel Lester P. Dodd** presented opinions (a) re legality of paying a Blue Shield claim to a physician subscriber who has either treated himself or a member of his immediate family; (b) re electrocardiogram being interpreted by M.D.'s for non-medical laboratories; (c) re term "unprofessional conduct."

- **Financial report for the month** was presented, studied and approved; bills payable were given study, approved and payment authorized.

- **1959 Michigan Clinical Institute Television Program Committee** was appointed: Wm. S. Reveno, M.D., Detroit, Chairman; E. A. Osius, M.D.; C. G. Johnson, M.D.; B. E. Brush, M.D.; D. W. Myers, M.D.; D. H. Kaump, M.D., of Detroit and Robert A. Reath, Philadelphia, Advisor. Providence Hospital, Detroit, was chosen as the site for beaming the 1959 color television program during the MCI, March 10-11-12-13, 1959.

- **Report from L. A. Drolett, M.D.,** MSMS Representative to the Chicago meeting on Uniform Hazardous Substances Act, was approved with thanks.

- **Public Relations Counsel's Report** included (a) progress on MSMS Seal of Assurance Campaign; (b) legislative bills pending; (c) invitation to MSMS to appoint representative to Legislative Advisory Committee—the Executive Committee of The Council appointing A. H. Hirschfeld, M.D., Detroit; (d) progress report on Michigan Association of Professions; (e) People's Community Hospital Authority; the public relations counsel was authorized to meet with the chiefs of staffs in these hospitals to obtain information and study the problems; (f) the MSMS Exhibit was authorized to be shown at the Michigan State Fair in Detroit, at the Ionia Free Fair, and at the Saginaw County Fair; (g) E. S. Oldham, M.D., Councilor for the eighth district, was authorized to attend the Michigan Practical Nurses Association annual convention in Saginaw as MSMS representative.

- **Committee Reports.** The following were considered: Maternal Health Committee, meeting of February 6; Rural Medical Service Committee, April 10; Permanent Conference Committee, April 16; Study Committee on Prevention of Highway Accidents, April 17; Planning Committee for Officer's Night Dinner Dance, April 22; Rheumatic Fever Control Committee, May 7; Committee on Committees, May 13; Arbitration Committee, May 25: VA Home-Town Medical Care Program Fee Schedule Committee, April 15.

- **Michigan Health Commissioner A. E. Heustis, M.D.,** presented matters of mutual interest re the Department budget; poliomyelitis; nursing homes; TPCF Testing; and radiation policy.

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is obtained by desensitizing your patient for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction for each. Specific desensitization against irritants such as foods, epidermals, dust, fungi, bacteria and pollens immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For your patients that have already been skin tested by any means, simply send their list of offenders to the Allergy Division. Prompt 7-10 day service on all Rx's.

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PR REPORT

ORIGINS OF SELF REGULATION IN MEDICINE: Part V

By Gaylord S. Bates, M.D.

The history of American medicine with respect to regulation has reproduced in 300 years the European experience of 2000 years. It began with uncontrolled practice by whoever wished to call himself a healer. Then the degree of Doctor of Medicine became accepted as a criterion for adequate medical knowledge. Toward the end of the colonial period medical societies were organized in many states and became the agencies controlling medical practice conferring licenses, as Massachusetts did in 1781. Some states atempted regulation by appointing boards of medical examiners, notably New York and New Jersey. By the middle of the 19th century conditions of medical practice and medical education had become so chaotic that state boards of medical examiners were permanently established. Led by Texas in 1873 nearly all states instituted this means of control by the end of the century.

The regulation of physicians by law has been continuous throughout the history of civilized peoples. It grew out of the practical realization that the health of individuals vitally concerned the very existence of the state, and therefore must be of prime concern to the state. The physician, being the only agency devoted to the study, treatment and prevention of disease, has been the chief subject for consideration by the state in its efforts to protect its own health. Individual citizens do not have the means to assess accurately the scientific attainments of one who claims to be a physician nor of his moral fitness. Since the state does have means of establishing the facts, it has assumed that duty. In reality, the scientific qualifications of a physician are determined in law by specifying minimums of training, and by examination. No equivalent means have been formed for judging moral qualifications. This area has been left to physicians themselves. Although good moral character is required by law society can only assure it indirectly by recourse to civil suit in suspected cases of immoral practice. The first known significant response was the ethical precepts of the Greek physicians represented by the Hippocratic Collection. The guilds and colleges of the middle ages were empowered by their charters to deal with quackery and immoral or unskillful practices. MacKinney shows from recent historical researches that Hippocratic ideals can be traced in an unbroken line through the Dark Ages and into the 15th century. An example is from a 10th century manuscript now in Chartres and titled:

WHAT SORT OF PERSON A PHYSICIAN SHOULD BE

"Let us now explain what sort of person a physician should be. He should be gentle in manners and modest, with the proper amount of reliability. He should be neither lacking in knowledge, nor proud; he should take care of rich and poor, slave and free equally for among all such people medicines are needed. Moreover, if certain compensation is offered, let him accept rather than refuse. If, however, it is not offered, do not demand it because, however much each one pays, the compensation for medical services cannot be equated with the benefits. Moreover, enter the homes you visit in such a manner as to have eyes only for the healing of the sick. Be mindful of the Hippocratic Oath, and abstain from all guilt and especially from immorality and acts of seduction. Keep secret everything that goes on or is spoken in the home. Thus the physician himself, and the art, will acquire greater praise. The physician should have slender, fine fingers so as to be agreeable to all and to be subtle to his touch. Hippocrates himself said this. The physician should be no less agreeable in conversation, and not wanting in philosophy. He should be unassuming in manners so that both perfection in the art and good manners may be harmonized insofar as is possible."

This is the fifth installment of a paper presented before the Detroit Academy of Medicine at the Dearborn Inn, November 12, 1957.

SPECIAL COUNCILOR MEETINGS SOLVE PR COMMUNICATIONS PROBLEM

Two months ago when the Michigan State Medical Society was planning the participation phase of its new Seal of Assurance Plan, the Society faced a monumental communications problem. It was plain that reliance on just a mail campaign would not be enough. The story of the new plan would have to be explained to every MSMS member by someone who knew the complete evolution of the plan, from the survey last summer, to the House of Delegates meeting last fall, to the eight months' work by the Medical Care Insurance Committee since then.

Consequently, from May 7 to May 21, the sixteen lower peninsula Councilors held special briefing district meetings to which they invited their county medical society officers, delegates and alternate delegates. They, in turn, asked the MSMS and MMS "panels" questions about every phase of the new program; and it is a credit to the subsequent efforts of these key men when they returned home that many county societies (Van Buren first!) reached their 100 per cent participation figure in the early stages of the "sign-up" campaign. The two upper peninsula Councilors achieved like results with personal letters to each MSMS member in their respective districts.

This speedy response of the medical profession to support its own plan is but another example of the importance of good communications to good public relations.

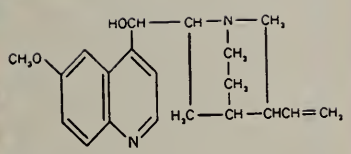
Progress in SYNTHETIC CHEMISTRY EQUALS Progress in CHEMOTHERAPEUTICS

"It has a high degree of clinical safety. . . It is considered to be the preferred antimalarial drug for treatment of disorders of connective tissue, because of the low incidence of gastrointestinal distress as compared to that with chloroquine phosphate."[1]

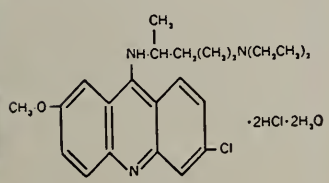
". . . Plaquenil is decidedly less toxic and better tolerated by the average patient, even in high dosage, than is chloroquine."[2]

". . . the least toxic of its class . . ."[3]

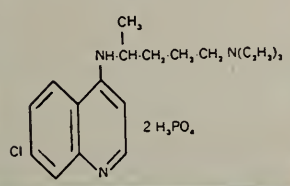
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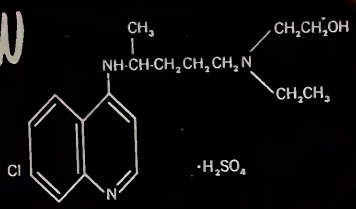
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SUPPLIED: Tablets of 200 mg., bottles of 100.

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ENCES:
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h, A.G., and Alexander, L.J.: The Schoch section, *Bull. A. Mil. Dermatologists* 5:25, Nov., 1956.
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Atabrine (brand of quinacrine), Aralen (brand of chloroquine) and Plaquenil (brand of hydroxychloroquine) trademarks reg. U.S. Pat. O

Editorial Comment

PREMATURE APPLAUSE

Press association teleprinters chattered last week with seemingly momentous news from Boston: "Discovery of a mold extract which seeks and destroys fresh blood clots in minutes . . . can be used safely on the sickest patient . . . credited with furnishing quick relief for sufferers of heart attacks." Editors front-paged the claims, which had been announced by the Massachusetts Heart Association.

No one was more dismayed by the sensational stories than Dr. Mario Stefanini of Boston's St. Elizabeth's Hospital, who had worked for two years to get the extract (an enzyme) from common molds. He has found that it dissolves the fibrous part of clots in animals and has tested its safety in 25 humans. But it will be two years, he estimates, before its value in relieving the symptoms of heart attacks and strokes can be shown. In any case it cannot reverse the original damage done by the clot. There is no assurance that the extract can be produced commercially.

By no coincidence, the heart association was having a fund drive when it announced Dr. Stefanini's work.—*Time*, March 3, 1958.

A HOUSE DIVIDED

"In the past twenty-five years there have been startling sociologic changes in these United States —many of them having a profound influence upon medicine. And surely more changes are in prospect. It is important to medicine, as it is to any segment of the nation's population, that those changes be for the good of the whole nation.

So, it is disquieting, to say the least, that medicine is a house divided. The segments are easy to see. There is a small segment made up of the "informed" physicians—those who have studied the current social, economic, and medical problems and their interrelationships. That small segment contains the leaders of "organized" medicine—a group of men who have dedicated no small part of their lives and fortunes to a program that will insure that the wheel will turn in the direction of growth, not decadence.

The larger segment of the divided house is made up of men who are uninformed or partly informed. Herein lies medicine's weakness.

Although there may be various reasons that a large number of physicians are uninformed, it seems probable that the major factor is a lack of interest on their part. That thought is based upon the simple truth that people learn quickly and completely about things in which they have a keen interest.

There is evident danger in this situation. If changes are to take place in the medical-social scheme, physicians are the people most able to turn those changes to the advantage of the nation. They are the potential guides for this part of the nation's destiny. But a guide who is uninformed or uninterested is no guide at all.

The remedy for all this is obvious—obvious but not simple. Some means must be found to insure that more physicians become informed. Finding those means is a complicated business. In this modern world, there are more and more things to compete for the physician's interest. What can be done to make paramount his interest in everything that relates to the medical-social setting? The answer to that question is the greatest single challenge to medicine's leaders."—GP published by the American Academy of General Practice, March, 1958.

STUDY OF INSURANCE PLANS PROPOSED

In a message to the Legislature dated February 25, 1958, Governor Harriman proposed and requested approval for a study of the Blue Cross and Blue Shield plans operating in the State. It is pointed out that the laws governing these rapidly growing plans are in need of modernization. Says the Governor, in part:

In a recent decision disapproving an application by the Associated Hospital Service (Blue Cross) of New York, for an increase in subscriber rates, approximating 40 per cent, the Superintendent of Insurance indicated that, in several significant respects, the operations of these plans were beyond his purview. He also indicated the need for a change in the statutory requirements relative to the maintenance of a contingent surplus fund. Legislation has been introduced to permit a reduction in these funds. The moneys so released can be used to pay claims and expenses. This proposed change will permit a greater degree of flexibility, while at the same time recognizing the needs of the plans to be able to meet unexpected contingencies. It will also permit requests for changes in subscriber rates to be determined by the Superintendent of Insurance on a more realistic basis.

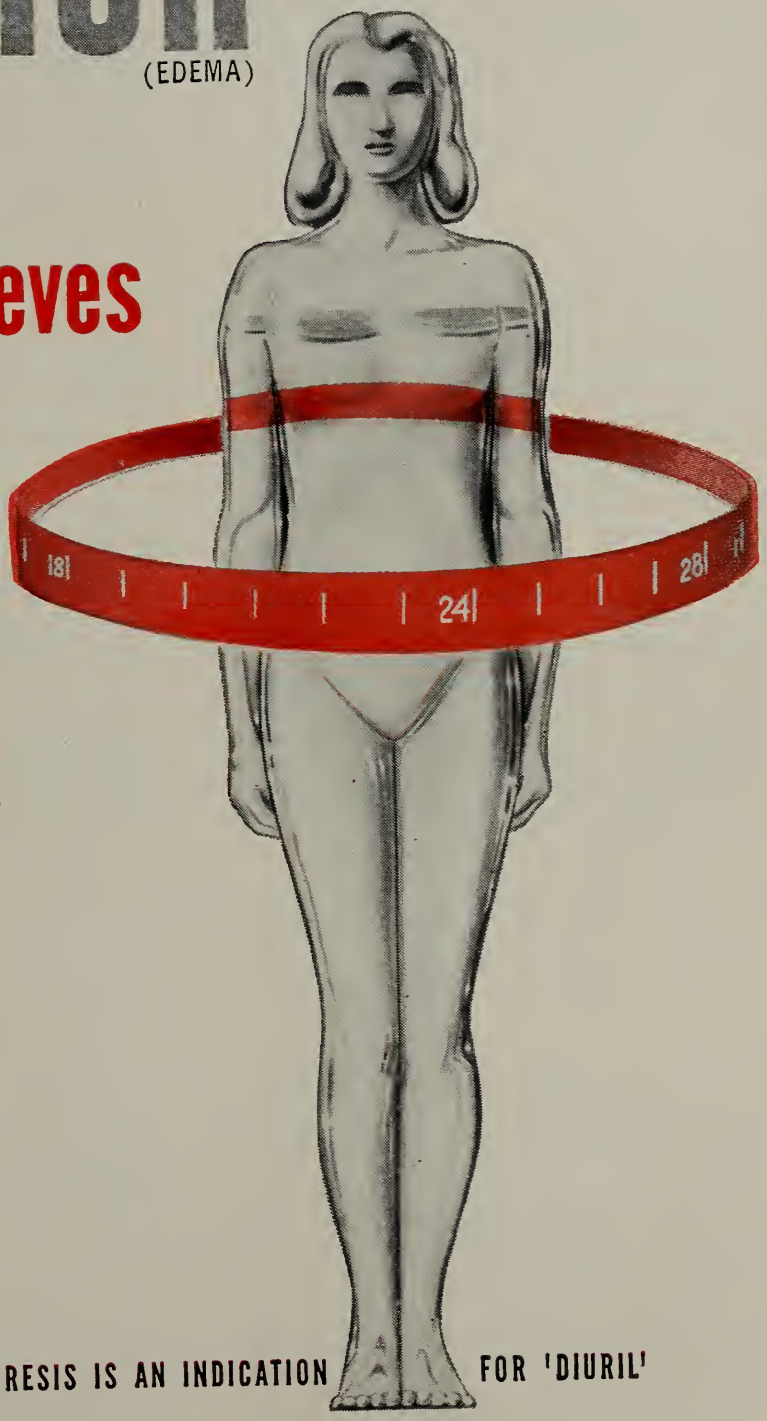
It would seem to be only common sense and certainly in the public interest to review the plans from time to time in the light of the rapid social and other changes that are taking place in our economy, especially as there has been no "Thorough review of their operations, conducted by an impartial body" since the 1930's.

The entire message was reproduced on page 1594 of the May 1 issue for the information of our membership. We feel that few will disagree with the intent of the study and that most will concur in the proposed plan to implement it. We urge all to read it carefully.—*New York State Journal of Medicine*, June 1, 1958.

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Distention
Discomfort



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AMA Washington Letter

THE MONTH IN WASHINGTON

The Hill-Burton program for U.S. grants to states to help build hospitals and other health facilities has run a successful course for almost twelve years. It has never been cut back in scope, and once (in 1954) it was expanded to take in diagnostic-treatment centers, nursing homes, chronic disease hospitals and rehabilitation centers.

On the overall, the U.S. puts up one-third of the money for a state's projects, but the state may give individual projects as much as two-thirds of their costs.

In the twelve years, 3,725 projects have been completed, are under construction or have been approved. They represent a total investment of about $3 billion, just under one-third of it federal money. Included are 156,658 hospital beds, 4,542 nursing beds, and almost 1,000 other facilities, such as rehabilitation centers.

Congress, as it has several times in the past, now is being asked to renew the program, which no doubt it will do. Also, the Department of Health, Education, and Welfare and several organizations in the health fields have looked over the twelve years' experience, and want some changes made in the way the program is handled. None of them, however, wants to end it.

The American Medical Association, for example, is suggesting that diagnostic-treatment and public health centers be dropped from the program, and that the mandatory emphasis on rural communities also be eliminated. These and other AMA recommendations are the result of a fourteen-state survey by the association.

Also, the AMA joins with the Department of Health, Education, and Welfare in proposing that emphasis be placed on facilities for the chronically ill and nursing homes, and that states be given more freedom in shifting money among the various categories.

Both the AMA and the AHA want Congress to authorize loans for hospitals and nursing homes, with the AMA recommending that loan guarantees be offered to proprietary as well as nonprofit institutions.

Before Congress are a dozen or more other suggested changes. Several groups want the research fund raised from the present $1.5 million a year to $4 or $5 million, and HEW would like to be able to advance money for planning when this action would hurry construction. HEW also, along with several Congressmen and state medical societies, would like to see the eligibility requirements eased so more nonprofit groups can build diagnostic-treatment centers. Another HEW proposal would recognize a rehabilitation center even if it did not furnish psychological, social and vocational evaluation services, as well as medical; now the center has to furnish all four services.

At this writing, indications are Congress will not allow a slip-up in extending the program, which is scheduled to expire June 30, 1959, even if it has to move along a simple extension bill, then try to work out agreement on all the suggested changes.

Regardless of what happens, Hill-Burton is undergoing more friendly—but critical—examination than it has experienced since its birth in 1946.

Notes.—American Association of Medical Colleges estimates that the country's 85 medical schools will require $275 million for rehabilitation and new construction in the next few years, not including money for research and hospital construction.

To learn how far our supplies could be stretched in event of nuclear attack, the Office of Defense Mobilization has asked Public Health Service to survey 700 wholesale drug houses, surgical supply firms and chain drug store warehouses for an inventory of their stocks.

American Medical Association, among other groups, is supporting legislation that would request President Eisenhower to call a 1960 White House Conference on the problems of the aged. However, HEW sees no need for the conference, nor does it favor suggestions that a new bureau be set up to handle the problem, nor a commission created.

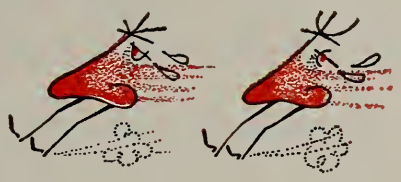
After conclusion of hearings, a House subcommittee has under consideration legislation for "bricks-and-mortar" U.S. grants to help medical and dental schools finance buildings and purchase of equipment; money could not be used for general operating expenses.

Dr. Thomas H. Alphin has resigned as director of AMA's Washington Office to become associate medical director of the Equitable Life Assurance Society at the group's main office in New York. Dr. William J. Kennard, deputy director, has been named acting director of the Washington Office.

VA is calling for bids on 12 construction projects estimated to cost a total of at least $4.2 million. Locations include Murfreesboro, Tenn.; Tomah, Wis.; Columbia, S. C.; Bay Pines, Fla.; Newington, Conn.; Iowa City, Iowa; West Roxbury, Mass.; Rutland Heights, Mass.; Walla Walla, Wash.; Wood, Wis.; Wadsworth, Kan.



running noses . . .



and other hay fever symptoms

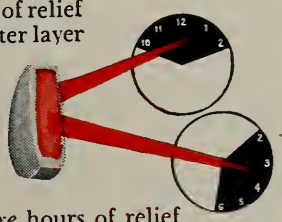
TRIAMINIC stops rhinorrhea, congestion and other distressing symptoms of summer allergies, including hay fever. Running nose, watery eyes and sneezing are best relieved by antihistamine *plus* decongestant action — systemically — with TRIAMINIC.

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TRIAMINIC brings relief in minutes—lasts for hours. Running noses stop, congested noses open—and stay open for 6 to 8 hours.

Triaminic provides around-the-clock freedom from allergic congestion with just one tablet t.i.d. because of the special timed-release design.

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Dosage: One tablet in the morning, mid-afternoon and at bedtime. In postnasal drip, one tablet at bedtime is usually sufficient.

Each timed-release TRIAMINIC Tablet contains:

Phenylpropanolamine HCl	50 mg.
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AMA News Notes

GUNNAR GUNDERSEN—112TH PRESIDENT

In taking the oath of office as the 112th president of the American Medical Association, June 24, in San Francisco, Dr. Gunnar Gundersen called attention to the physician's obligations on the international scene. The sixty-one-year-old La Crosse, Wisconsin, surgeon said: "As both physicians and citizens, we must see that medicine plays its full role, not only in promoting better world health, but also in helping the search for brotherhood and peace."

As American citizens, Dr. Gundersen said, "our first duty is to this country. But as members of the brotherhood of man, we also have a duty toward all men who yearn for freedom, dignity and peace." He further pointed out that "medicine can play a vitally effective part in bringing reality to the dream of world peace. For medicine, despite the designs of politicians or dictators, is above the harsh conflicts of ideologies and power policies. Medicine, like religion, speaks a universal language which passes all barriers of race, creed, color and nationality."

Dr. Gundersen has been active in state and national medical affairs throughout his practice. He was president of the State Medical Society of Wisconsin in 1941-42, served on a number of the society's committees, and was speaker of its House of Delegates for about five years. He was a member of the AMA's House of Delegates in 1937-38 and was elected to the AMA Board of Trustees in 1948. He became chairman of the Board in June, 1955. His keen interest in hospital affairs and the quality of hospital service led to his election as the first chairman of the Joint Commission on Accreditation of Hospitals when it was formed in 1951. He served in that capacity until 1953.

He now operates the Gundersen Clinic in La Crosse, along with three of his physician brothers, Sigurd B., Alf H., and Thorolf E. Two other physician brothers, Drs. Trygve and Sven M. Gundersen, are practicing in Boston and Hanover, New Hampshire, respectively. The Gundersen Clinic, which handles 3,000 to 4,000 new patients a year, was established in 1927. It attracts people from all over the United States and is operated in conjunction with the La Crosse Lutheran Hospital next door.

Dr. Gundersen did his preparatory school work in Oslo, Norway, and returned to the United States to obtain his B.S. degree from the University of Wisconsin in 1917, and his M.D. from Columbia University in 1920. He served his internship and residency at La Crosse Lutheran Hospital from 1920 to 1922. He is a diplomate of the American Board of Surgery, a fellow of the American College of Surgeons and the International College of Surgeons, a member of the Council of the World Medical Association, and a member of the American Public Health Association.

NEW CAREER FILM

A little seven-year-old youngster is helping influence students to choose a career on the health team. She's Julie Morgan, the star of a new 16mm medical health career recruitment film produced by the American Medical Association, the American Hospital Association and E. R. Squibb and Sons. "Helping Hands for Julie" tells the dramatic story of the fight to save Julie's life. The helping hands aiding the doctors in finding the correct diagnosis of meningitis are those of the nurses, medical technologists, x-ray technicians and medical record librarians. With the diagnosis made, the drugs of the pharmacist, the nourishing food of the dietitian, the restorative work of the physical therapist, and the care of the nurses bring Julie back to health.

Medical societies and auxiliaries may arrange for bookings of this 30-minute, black and white sound film through AMA's Film Library after July 1.

HIGH SCHOOL SCIENTISTS EXHIBIT IN SAN FRANCISCO

The American Medical Association was host to two teen-age scientists during its Annual Meeting in San Francisco. As a result of their winning the AMA's top citations at the National Science Fair in Flint, Michigan, May 7-10, Clare L. Chatland, sixteen, Missoula, Montana, and David R. Brown, fifteen, Minneapolis, Minnesota, showed their exhibits to 30,000 physicians and guests at the San Francisco meeting.

David's exhibit on humeral transplants illustrates the method by which fetal mouse bones become ossified when transplanted into hostile media, and Clare's work is an experiment with mice showing how hypersensitizing agents enhance antigen-antibody reactions.

Their exhibits were chosen by a special AMA committee, headed by Dr. Alphonse McMahon, chairman of the AMA Council on Scientific Assembly, in a field of 281 entries from forty-one states, the District of Columbia, Alaska, Hawaii, Germany and Japan.

In addition to the two top AMA awards, honorable mention citations were presented to Robert L. Sayre, seventeen, Huntington, West Virginia, for his exhibit on "The Neurohumeral Theory and Cardiac Inhibition," and to Barbara Ann Conway, sixteen, Chatanooga, Tennessee, for her study of "Experimental Teratology," showing the development of congenital malformations when pregnant rats are subjected to stress.

Hundreds of county and state medical societies are now co-operating with and supporting their local science fairs, which send winners to the National competitions. The 1959 Fair, sponsored by Science Clubs of America, 1719 N Street N.W., Washington, D. C., as an encouragement to the study of science, will be held May 6 to 9 in Hartford, Connecticut, and in 1960 in Indianapolis, Indiana.

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The Management of Coronary Diseases and Anginal Seizures

By Leon H. Goldberg, M.D.
Nyack, New York

THIS IS a maiden presentation, introducing the plant Chelidonium majus (commonly known as the swallowwort) as a new and effective remedy in the management of coronary artery disease and angina pectoris. Prepared by a special process, the extract of the total alkaloids of the plant, biologically standardized, is available under the pharmaceutical name of Kelid.

Chelidonium majus is a member of the Papaveraceae family of plants. Its individual alkaloids, chelidonine, alpha and beta homochelidonime, and cherylrythrin, are reputed to be smooth muscle relaxants. In searching for a remedy for hypertension, I assumed that the total alkaloidal extract would act much as its individual alkaloidal components. After several years of clinical trial, it became apparent that the drug had no effect upon the blood pressure. But what emerged pointedly was the fact that a good number of hypertensile patients, who had coronary artery disease and angina pectoris, were relieved of their painful seizures over extended periods of time. Accordingly, in April, 1954, an organized study of the effect of the drug on the anginal sufferer, in general, was instituted. After another three years of clinical observation, it became strikingly evident that the total alkaloidal extract of the plant brought gratifying and prolonged relief to the anginal sufferer.

In investigating the action of the total alkaloids of the plant, a pharmacologic paradox presented itself. In the light of the clinical experience of over a ten-year period, the total alkaloids were investigated for their effect upon the heart and the coronary circulation.

Pharmacologically, the total alkaloid fraction acts differently from any of its individual alkaloids. The rhythmic contraction of isolated smooth muscle is generally increased in amplitude. The effect on smooth muscle stimulants, such as histamine, is not antagonized. The isolated perfused rabbit heart is increased in the amplitude of the beat and slightly slowed in rate. Tracings are indistinguishable from those produced by khellin using the same procedures. The drug is "washed out" of muscle only with difficulty.

Perfusion experiments indicate an increased flow through the coronary circulation. Electrocardiograms in the intact dog show little change except a slight slowing of the rate. The effect was not altered after vagal inhibition by atropine. The blood pressure was not significantly affected by small intravenous doses although a transient increase followed by a slight depression was observed. This latter effect has not been seen clinically.

The drug does not appear to be very toxic. Intravenous injections of as much as 2 cc./Kg. do not produce apparent toxic effects in the an-

Presented before the Michigan Academy of General Practice, Detroit, November 6, 1957.

Dr. Goldberg is a Fellow of the American College of Cardiology, Associate Member of the American College of Physicians, and a Diplomate of the American Board of Internal Medicine.

TABLE I. CORONARY ARTERY DISEASE—ANGINA PECTORIS
42 Cases

Post Infarctional	Abnormal Resting E.K.G.	Normal Resting E.K.G.	H.T.C.V.D. Abnormal Resting E.K.G.	H.T.C.V.D. Normal Resting E.K.G.	Total
Male	Male	Male	Male	Male	
S.S. 47 P	F.B. 44	R.G. 51	H.F. 67 D	K.C. 63 D	
G.W. 53 P	H.B. 51	G.M. 54			
E.N. 59	A.G. 51	J.W. 54 P			
F.P. 61	J.O. 57 P	I.S. 61			
D.G. 67 P	L.W. 60 P	E.F. 62 P			
R.K. 67	H.G. 62 P	A.S. 65			
	E.H. 67	J.P. 68 P/D			P—Pathol.
	H.S. 70 P	T.M. 70 P			
	H.H. 76 P				D—Deaths
	F.S. 89 D				
Female	Female	Female	Female	Female	
L.B. 51 P	M.C. 59	L.C. 79 D	A.F. 59 D		
H.T. 52	D.M. 60		B.V. 70		
N.S. 59	G.B. 61 P				
H.S. 66 P/D	E.B. 63 P				
B.S. 70	S.B. 69 P				
	A.C. 70 P				
	E.B. 72				
	K.E. 77 P				
Male 6	Male 10	Male 8	Male 1	Male 1	Males 26
Female 5	Female 8	Female 1	Female 2	Female 0	Females 16
Deaths 1	Deaths 1	Deaths 2	Deaths 2	Deaths 1	Deaths 7

TABLE II.

SUMMARY OF ANGINA PECTORIS PATIENTS TREATED

Differential Diagnosis	Male	Female	Total	Deaths
Postinfarctional angina	6	5	11	1
Coronary artery disease with abnormal resting E.K.G.	10	8	18	1
Coronary artery disease with normal resting E.K.G.	8	1	9	2
Hypertensive cardiovascular with abnormal resting E.K.G.	1	2	3	2
Hypertensive cardiovascular with normal resting E.K.G.	1	0	1	1
Total	26	16	42	7

TABLE III. AGE DISTRIBUTION IN DECADES

Male			Female		
Age	No.	Deaths	Age	No.	Deaths
40-50	2	0	40-50	0	0
50-60	8	0	50-60	5	1
60-70	12	3	60-70	5	1
70-80	3	0	70-80	6	1
80-90	1	1	80-90	0	0
Total	26	4	Total	16	3

esthetized dog. Thus a pharmacologic basis for the clinical results obtained appears to be established.

Materials and Methods

The patients for this evaluation were obtained from an unselected group of ambulatory clients, as seen in private practice in a suburban area adjacent to New York City. Only those patients were included whose history and other findings permitted an unequivocal diagnosis of angina pectoris.

There are forty-two cases in all. All had angina pectoris of varying intensities and varying frequencies. No attempt was made to qualify the intensity of the pain. For the sake of simplicity, let us say that they all suffered moderately severe seizures. Each sufferer is unto himself a case. Each patient is unto himself a series. And when two patients with the same noses will come to me, then I will know that they suffer their anginal seizures with equal intensity.

They were divided into five clinical groups:

(1) Six men between the ages of forty-seven and sitxy-seven; and five women between the ages of fifty-one and seventy make up the postinfarctional group.

(2) Ten men between the ages of forty-four and eighty-nine and eight women between the ages of fifty-nine and seventy-seven constitute the group of anginal sufferers inscribing abnormal resting electrocardiograms.

(3) Eight men ranging in age from fifty-one to seventy; and one woman of seventy, all of whom presented unequivocal clinical evidences of coronary artery disease and angina pectoris, showed normal resting electrocardiograms.

(4) One man, aged seventy-six, and two women, ages fifty-nine and seventy, are in the hypertensile cardiovascular group with abnormal resting electrocardiograms.

(5) One man, aged sixty-three, an hypertensile for over twenty-five years, inscribed a normal electrocardiogram.

TABLE IV.

CORONARY ARTERY DISEASE—ANGINA PECTORIS—WITH CONCURRENT OTHER PATHOLOGIC CONDITIONS

					Deaths
Postinfarctional			Male	1	
	S.S.	47	Hiatus hernia −	1	
	G.W.	53	Duodenal ulcer	1	
	D.G.	67	Cardiomegaly +++++−		
5			Female	1	
	L.B.	51	Anxiety neuroses ++++		
	H.S.	65	Gall-bladder disease with stones		
Abnormal resting E.K.G.			Male		
	J.O.	57	Chronic rheumatic valvular heart disease	1	1
	L.W.	60	Hypertrophic gastritis		
	H.G.	62	Primary pulmonary emphysema −		
	H.S.	70	Primary pulmonary emphysema −	1	
	H.H.	76	Hypertrophied prostatitic—Uric acid renal calculi		
10			Female	2	1
	G.B.	61	Gall-bladder disease with gallstones		
	E.B.	63	Chronic rheumatic valvular heart disease		
	A.G.	70	Chronic rheumatic valvular heart disease	4	
	S.B.	69	Primary pulmonary emphysema		
	K.E.	77	Primary pulmonary emphysema		
Normal resting E.K.G.			Male	1	
	J.W.	54	Gastric diverticulum	1	
	E.T.	62	Symptomatic ankylosed cervical spondylitis	4	
4	J.P.	68	Chronic rheumatic valvular heart disease	1	
	T.M.	70	Parkinson's disease		
			Total 19 (45% of all cases)	19	2
Deaths	J.P.	M. 68	Chronic rheumatic valvular heart disease. Normal E.K.G.—Infarction		
	H.S.	F. 67	Gall-bladder disease—Stones—Abnormal E.K.G.—Infarction		

There are seven deaths listed. Mrs. H. S., from the postinfarctional group, who had gall-bladder disease with stones, died on September 19, 1957. The pathologist reported marked and severe sclerosis with occlusion of right and left coronary arteries; old and recent infarcts of the left ventricle, of the apex, and of the posterior wall of the right ventricle, and mural thrombi of both right and left ventricles, and an embolus to the main branch of the pulmonary artery from thrombi in the right ventricle.

From the group inscribing abnormal electrocardiograms, the eighty-nine-year-old gentleman died in his easy chair.

From the group with normal electrocardiograms, J. P., sixty-eight, with chronic valvular heart disease, died of a myocardial infarction. Mrs. L. C., who enjoyed ten years of a cardiac symptom-free status, died at seventy-nine of a cerebrovascular accident.

Out of the four hypertensile patients, three are dead. H. F., sixty-seven, died of a cerebrovascular accident; Mrs. A. F., fifty-six, of an acute coronary occlusion and myocardial infarction, and J. C., sixty-three, of an acute coronary occlusion and myocardial infarction.

Five of the deaths were due to coronary artery disease, two to cerebrovascular accidents.

Because it is not uncommon to be confronted in our respective practices by an anginal sufferer with another concurrent disease, nineteen such instances are tabulated in Table V. They were labeled "P" in Table I.

TABLE V. CONCURRENT PATHOLOGIC CONDITIONS

Disease	No.	Deaths
Chronic rheumatic valvular heart disease	4	1
Primary pulmonary emphysema	4	
Gallbladder disease with stones	2	1
Anxiety neuroses (post-psychotic)	1	
Idiopathic cardiomegaly	1	
Hiatus hernia	1	
Hypertrophic gastritis	1	
Hypertrophic prostatitis with renal calculi	1	
Gastric diverticulum	1	
Duodenal ulcer	1	
Parkinson's disease	1	
Symptomatic ankylosing cervical spondylitis	1	
Total	19	2

I wish it were possible to present each of the forty-two cases in this study. Despite the fact that they are divided into groups, and that almost half of them have concurrent other pathologies, the presentation of the following cases will serve as a guide and yardstick to the management of the anginal sufferer, in general.

Case Reports

Case 1.—E. N., a fifty-eight-year-old normotensive man of average build and weight, suffered an acute coronary insult on October 8, 1954, while watching television. He was observed at home by his physician for four days and then hospitalized for two weeks when the painful seizure and shock recurred. Ten days after hospital discharge, another seizure occurred and he was again hospitalized for seven days. He was allowed to return to his work as a bookbinder on January 17, 1955,

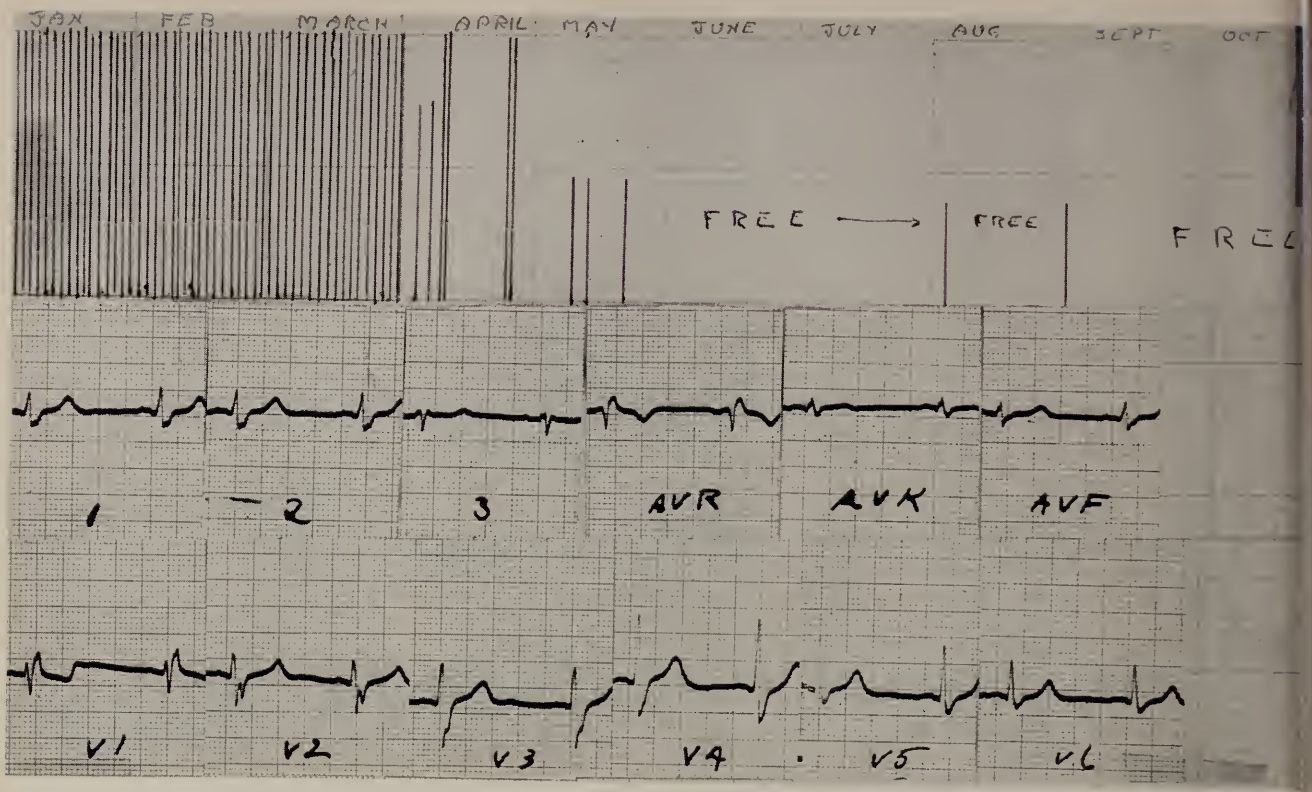


Fig. 1. Case 1. Mr. E. N., aged sixty-one. Graphic illustration of the course and remission of painful episodes. The vertical lines during January, February and March represent the frequency and the intensity of the anginal seizures. The electrocardiogram is the stabilized pattern he inscribed throughout.

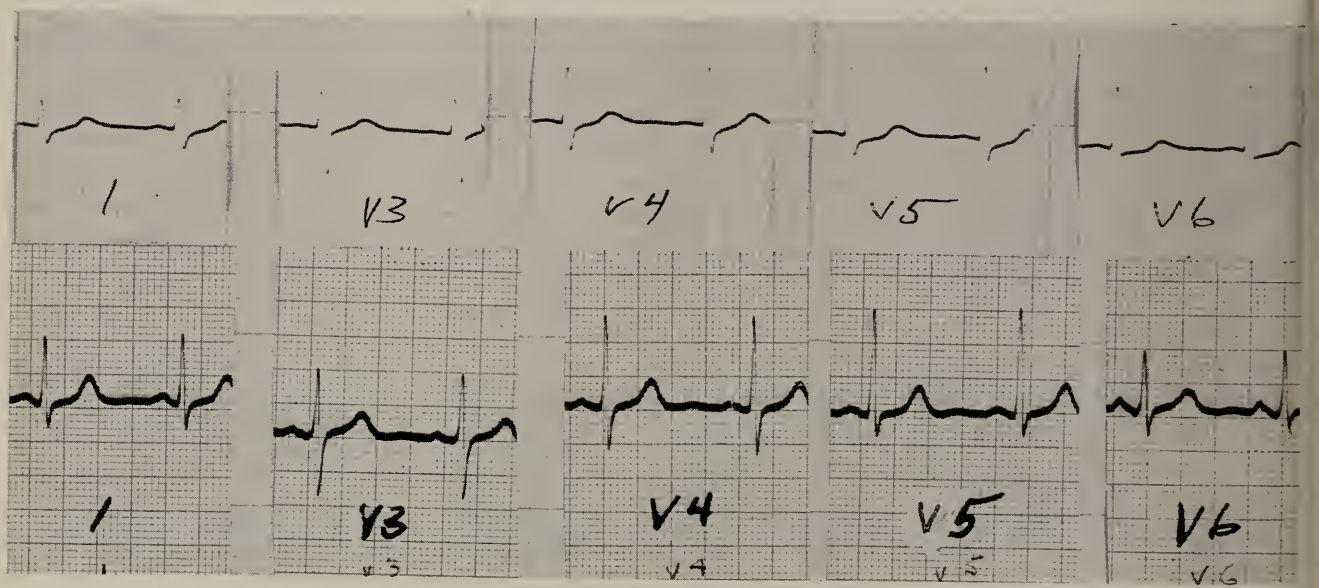


Fig. 2. Case 2. Mrs. G. B., aged sixty-one. Upper cardiogram, April 2, 1957; lower, September 3. 1957.

but he suffered daily painful episodes requiring nitroglycerin and occasionally Demerol for relief. On March 17, a severe painful seizure was relieved by Demerol only after one and one-half hours.

This patient was first referred to us by his physician from a neighboring state on March 22, 1955. He was depressed, anxious, tense and complained of dizziness and chest pain. Classical treatment between March 22 and April 4, was without beneficial effect and he suffered three episodes of severe pain in that period.

Kelid was begun April 4, 1955, 0.25 cc., three times a day. Despite increased mental tension due to economic circumstances, improvement was satisfactory. He reported very slight pains on April 6, evanescent pains on April 8, and marked improvement on April 10. The patient mowed his lawn on May 21, experiencing slight discomfort but no pain. He was symptom-free on June 11, 1955, and walked four to five blocks comfortably by November. Kelid was discontinued on August 18, 1956.

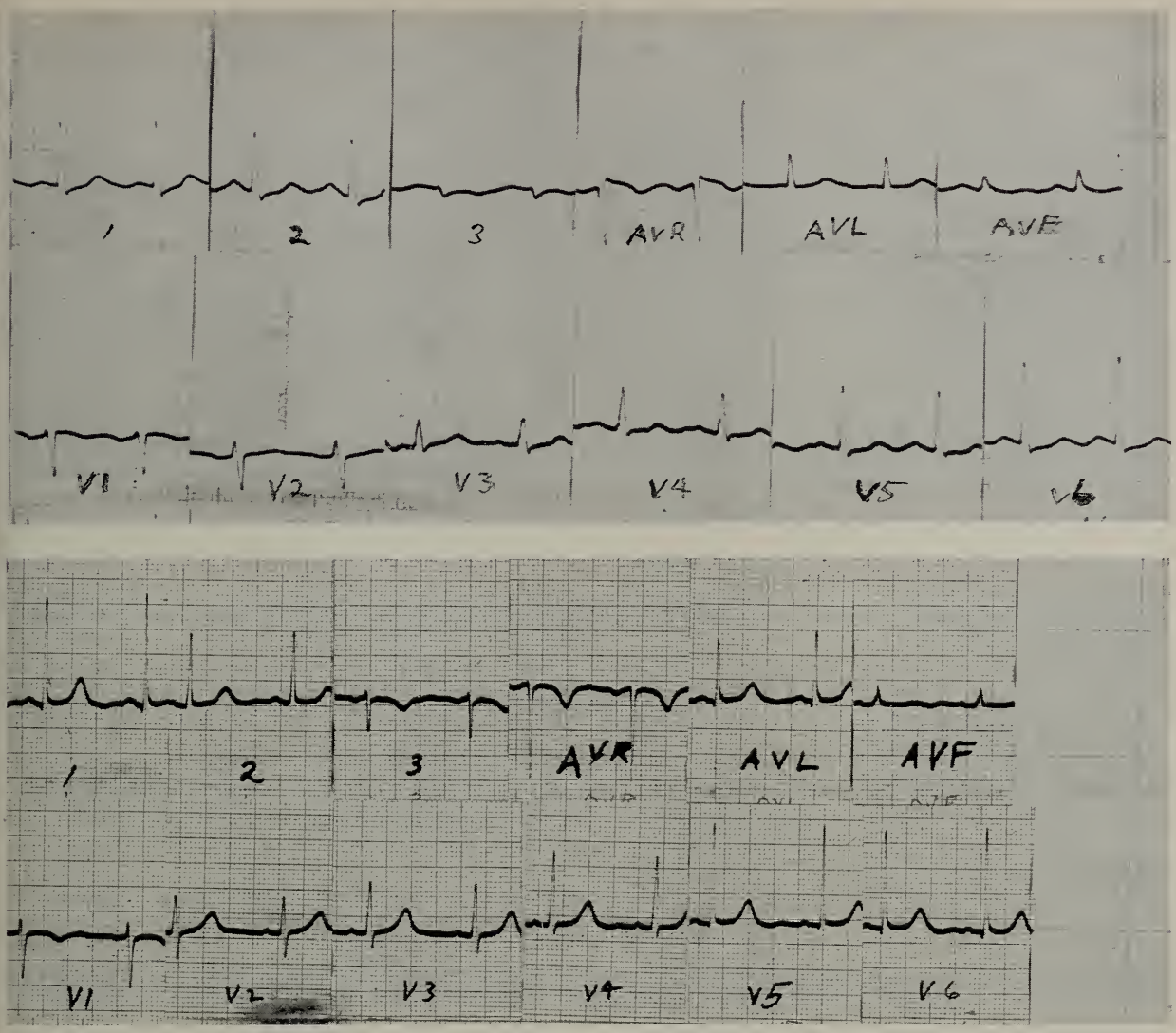


Fig. 3. Case 3. Mrs. E. B., aged sixty-three. Upper cardiogram, January 11, 1957; lower, May 3, 1957.

The patient's last visit to me was June 28, 1957. He has remained cardiologically symptom-free despite intercurrent coughs and colds, commuting to and from his daily work and walking seven blocks to and from the factory.

Case 2.—From the group inscribing abnormal electrocardiograms, is the case of G. B., a sixty-one-year-old woman. She was obese and evidenced a labile blood pressure ranging between 180/120 and 124/84 throughout the past twelve years. At no time could she endure a reduction regimen. She was hospitalized for her first anginal seizure in May, 1945. A normal electrocardiogram and a sluggish and poor functioning gall bladder without stones confused the young physician at that time.

She visited me in October, 1945, and presented a history clinically suggestive of angina pectoris. During 1946 and 1947, she suffered several acute episodes requiring Demerol. Following her husband's death in 1947, she presented a blood pressure of 120/84 and complained of chest pains radiating to the left shoulder and arm upon exertion. Kelid was prescribed at that time. The electrocardiogram showed normal reaction.

Much as she would stick to a diet for a week or so, she took her medication for similar short periods. Nonetheless, she enjoyed considerable relief. Following several recurring episodes of acute cholecystitis, she was reexamined radiologically in November, 1950. A Graham-negative gall bladder with a cluster of stones was found. The electrocardiogram showed no abnormalities.

In March, 1951, the stones were removed but her gall bladder was not removed. Following her surgery she remained clinically well until April, 1954, when her precordial distress recurred. Kelid was dispensed to her. Once more she discontinued her medication after several weeks. In August of 1954, she was awakened from her sleep by a dream in which she was being chased up hill and she suffered a deep, smothering substernal pressure and pain. She resumed taking Kelid, found herself free from pain and discontinued it herself once again. As the gall-bladder area showed clinical evidence of trouble, another x-ray study in December, 1954, demonstrated

once again a Graham-negative gall bladder but with a cluster of stones. The electrocardiogram gave normal findings.

She passed two uneventful clinical years until April 1, 1957, when she reported that she was having recurring episodes of throat fullness and spasms for several weeks. A resting electrocardiogram demonstrated depressed ST segments in leads 1, V_3, V_4, V_5 and V_6. Kelid was dispensed once again. She was then advised that her heart was under strain. She continued on Kelid until August 10, 1957, and remained symptom-free in that period. This time I discontinued the remedy.

She continued on her symptom-free status. Eighteen days later I reinstituted the Kelid therapy, not because of any symptoms, but as a prophylactic measure. On September 3, 1957, all the ST depressions returned to the isoelectric level. So impressed was she that she began and continues on as of this day, a dietary reduction regimen, on Kelid, remaining symptom-free.

Case 3.—Mrs. E. B., a normotensive female of average weight with mitral valvular disease and two-plus cardiomegaly, had two bouts of bronchopneumonia without failure between 1951 and 1952. Between 1952 and January 1957, she suffered from but mild colds and a few sore throats. On January 6, 1957, and again on January 7, 1957, she experienced daily seizures of precordial tightness of rather severe intensities. She was first seen on January 11, 1957. Kelid was dispensed. She inscribed an abnormal resting electrocardiogram that day. On January 18, she reported one evanescent mild episode during the week. She was left with a sense of ill feeling until February 11, when she reported a state of well-being. The medication was discontinued that day. In spite of a sore throat on March 24, 1957, she remained in a symptom-free state. On April 4, 1957, she reported a state of well-being. An electrocardiogram that day showed a return of all the ST depressions to their isoelectric lines. She remains symptom-free until this very moment.

Several other cases present graphic evidence of improvement in the electrocardiogram. We are not prepared to state that Kelid was responsible for the restoring the depressed ST segments to their isoelectric levels. Yet it is so nice to have graphic evidence of improvement concurrent with symptomatic relief, that I chose to present these two cases to you. I am satisfied that we consider it a happy clinical coincidence until further evidences are accumulated throughout the years. From our very practical point of view, the relief of the patient's pain and the concurrent anxieties are our principal aim. We do not treat the electrocardiogram.

Case 4.—This is selected from the group of patients with coronary artery disease who show no resting electrocardiographic abnormalities.

T. M., a seventy-year-old educator, had first suffered chest discomfort six years previously in 1949, at the time of unusual exertion. The pain returned in troublesome degree in the summer of 1955. His physician recorded a blood pressure reading of 150/90 in 1949 and had entered a diagnosis of coronary artery disease and angina pectoris with normal electrocardiogram in 1955. Nitroglycerin had been prescribed for use in the usual way.

The patient came under my care on November 28, 1955. Pulse was 68 and regular, blood pressure 150/80. The left hand evidenced a noticeable Parkinsonian tremor. His resting electrocardiogram showed no abnormalities.

Kelid was prescribed on that date, 0.25 cc. three times a day. The patient remained free of pain until December 26, 1955, when a severe four-hour attack was not relieved by nitroglycerin. Thereafter, the patient was symptom-free until unusual exertion caused a mild attack on February 15, 1956. Except for a brief painless "inner turbulence" on April 28, 1956, when temporarily out of medicine, the patient has continued to be symptom-free. He was last seen on September 30, 1957. He continued his activities as dean of a college and complained that when he walked uphill in humid weather, he experienced a few mild precordial twinges.

This gentleman has been taking Kelid since November, 1955, fully two years without any evidence of any side effects.

Miss K. E., the seventy-seven-year-old lady, with primary pulmonary emphysema and a moderately elevated hypertension of 160/100, has been on Kelid 0.25 cc. by mouth since June 18, 1946. She has been free from any precordial discomforts since August, 1946. She calls every three months or so from the city for a new supply of the drug. She has had no side effects. She has been on Kelid for eleven years.

On the other hand, about three out of the forty-two cases gave a history of nausea. In all three, half of the dose carried them along satisfactorily.

Case 5.—In 1940, J. C., a forty-nine-year-old man, presented himself with a history of hypertension over a period of fifteen years. He complained then of postprandial sub-xiphoid pain. He was seen infrequently during the next two years for minor intercurrent simple colds and upper respiratory infections. Blood pressure fluctuated, during this period, between 140/100 and 170/110. This patient was not seen during the war years, 1942-1947, but returned in May, 1947, with a diagnosis of coronary artery disease. Anxiety and distress were pronounced since he had awakened that morning with left precordial pain radiating to the left side of the neck, left arm and substernally. The incident was of short duration.

Simple expectant therapy was effective for a time

but during the following year, several infrequent bouts of mild to moderate angina were experienced. Blood pressure remained between 170/110 and 190/130 despite the concurrent use of several of the currently used anti-hypertensive drugs. The angina gradually became more severe and on September 8, 1948, Kelid was prescribed.

Improvement was gradual and satisfactory. The patient resumed his erstwhile church, social and business activities and remained cardiologically symptom-free. The electrocardiogram was normal as of December 11, 1948. On April 13, 1949, he reported the disappearance of an erstwhile nocturia.

In May of 1949, this patient reported fleeting red spots in the visual periphery; in 1952, he suffered several episodes of evanescent giddiness; in 1954, a brief episode of labyrinthitis. With these exceptions, he remained well, active and free from anginal attacks with unchanged blood pressure until April 22, 1955. On that date he drove his car to the side of the road, cut off the ignition and collapsed and died at the wheel at the age of sixty-four.

This patient had taken Kelid daily for seven consecutive years. He enjoyed seven years of an active and symptom-free life.

It is fully recognized that the clinical course of angina pectoris is highly variable and that this factor makes an evaluation of therapy extremely difficult. Our results, however, seem to us to be unequivocal. Weighed against the experience of the years, we have been more than gratified with the successful results we have obtained with this drug.

Results

The anginal syndrome was definitely improved in all of our forty-two patients. Improvement was usually noted within two weeks and the patients were able to resume reasonable patterns of physical activity within two months following the initiation of Kelid treatment. It was usually possible to discontinue medication after the sixty-day period and still maintain the patient on a cardiologic symptom-free status. Two years follow-up on most of the thirty-five patients who remain available to us, indicates freedom from anginal attack in the post-treatment period.

The side effects are minimal. Although half a unit appears to be adequate as a maintenance dose, I am of the opinion that such a dose is not too effective. On the other hand, in two instances in which one unit or 0.25 cc. seemed to be not quite as effective as our experiences dictated, the dose was increased to one unit and a half. This dose was tolerated well and satisfactory improvement followed.

In theory, there are several ways in which Kelid might relieve the anginal syndrome. A direct action on the smooth muscle of the coronary arteries could improve coronary flow. Or, since coronary flow occurs during diastole, greater myocardial relaxation duing the diastolic phase could provide improved myocardial nutrition. Or lastly, a lessening of the sensibility of the sensory afferent pain receptors in the myocardium could be involved.

A lessening of reflex sensitivity does not appear to be in accord with the pharmacologic or clinical observations.

The most attractive theory assumes that Kelid causes increased coronary flow during the period of diastole. The slight slowing of the beat both in the normal animal and on heart perfusion when considered with the increased coronary flow and the increase in amplitude of the beat provide grounds for this assumption. The fact that the drug does not "wash out" readily from muscle bath preparations accounts, perhaps, for the long-lasting effectiveness of the small doses employed and the therapeutic after effect.

Summary

The use of Kelid, a biologically standardized total alkaloid extract from a papaveraceous plant, Chelidonium majus, has given satisfactory, successful results in the management of patients with angina pectoris.

Improvement usually appears within two weeks and patients are usually symptom-free within two months at a reasonable pattern of physical activity.

Follow-up studies over a two-year period indicate that patients remain relatively free of anginal attacks after discontinuation of medication.

No toxicity was observed in the doses used and side effects, such as nausea, were rare and minimal.

The drug appears to act by increasing coronary flow during the diastolic phase of the cardiac cycle. It does not appear to be an "antispasmodic" and has no generalized effect on the blood pressure.

A dosage of 0.25 cc. orally or one soft gelatin Kelid capsule three times a day is recommended

(Continued on Page 986)

Surgical Lesions of the Lower Extremities in Diabetics

A Classification of Lesions Arrived at Clinically, Applicable as a Guide to Surgical Procedure

By Frederick W. Williams, M.D., F.A.C.P.,
and Thomas J. O'Kane, M.D., F.A.C.S.
Bronx, New York

LESIONS of the lower extremities associated with diabetes can be classified by purely clinical methods. This statement we are able to make as a result of our having devised a classification nineteen years ago and applying it through the years. In accordance with our modern and progressive advancements in the treatment of infection, our progressive knowledge of peripheral vascular disease and the developments of technique in surgery, we offered this classification originally to be used as a guide for operation level. In the light of our present knowledge, we would venture to say that this classification arrived at clinically, is definitely applicable and is not only a guide for operation or amputation level but also is now a guide for the conservative treatment, considering the wide variety of antibiotics that are now available. In the early days, all the lesions of the lower extremities were vaguely thrown into one large group and named "diabetic gangrene."

Classification

Doctors Root and McKittrick, in their early book on surgery in the diabetic patient, suggested that there were certain lesions that were vascular and certain lesions that had an infectious element. This was the first real contribution toward classifying and establishing lesions. In 1937[1] and 1938,[2] and again in 1940,[3] we published our classification. It was based upon the knowledge of peripheral vascular disease and applied to diabetic legs; it was also based upon the other fundamental pathological element, infection. We had arrived at the conclusion at that time that if we were going to classify the lesions of the lower extremities in diabetic patients on the basis of two fundamental pathological elements, there must of necessity be two fundamental classifications: purely vascular and purely infectious. With two elements there must be a third group of lesions. These were mixed lesions. In the mixed lesions, the only contribution that we had made was that they could be sub-classified into three types, dependent upon the degree of impairment of peripheral arterial circulation.

After clinical experience, we had arrived at three types of mixed lesions. The first was marked arterial impairment with infection; the second, moderate vascular arterial impairment with infection; and the third, slight vascular arterial impairment together with infection. Thus, we then found ourselves with the classification that gave us five types of lesions (Table I). The first type was a lesion which was purely vascular and characterized by marked arterial insufficiency on an arterioslerotic basis. The lesion itself, initially a gangrene, may vary in extent (Fig. 1-3), and there is no evidence of infection. The second type, the mixed lesion, we vernacularly call a 3-plus vascular mixed. This was characterized as a purely vascular lesion by marked arterial insufficiently, initially a gangrene, and having infection superimposed (Fig. 4). Once the infection was superimposed, this was an entirely different lesion from the purely vascular, with absence of infection. The third type was the 2-plus vascular mixed lesion, characterized by moderate arterial insufficiency (the initial lesion is an infection and then a gangrenous lesion is superimposed). This usually occurs because an edema and swelling compress the collateral circulation and thrombose the veins. A 2-plus vascular mixed lesion is illustrated in Figure 5. The 1-plus vascular mixed lesion is quite readily understood. It has slight arterial insufficiency, is initially an infectious lesion but the circulation (and the collateral) present, is adequate to prevent the superimposition of

Presented before the Michigan Clinical Institute, Detroit March, 1957.

TABLE I. LESIONS OF THE LOWER EXTREMITIES

Class	Criteria	Clinical Findings	Lesion	Procedure
Purely vascular	Marked arterial deficiency, no infection	Marked P.V.D.* Initial lesion, gangrene No infection	Superficial Localized Extensive	No operation Low amp. (below knee) Amp. above knee
Mixed, 3 plus vascular	Marked arterial deficiency Infection	Marked P.V.D. Initial lesion, gangrene Infection superimposed	Spreading	Amp. urgent (sulfa drugs, penicillin, anti-biotics)
Mixed, 2 plus vascular	Moderate arterial deficiency Infection	Moderate P.V.D. Initial lesion, infection Gangrene secondary	Spreading	Amp. urgent (sulfa drugs, penicillin, anti-biotics)
Mixed, 1 plus vascular	Slight arterial deficiency Infection	Slight P.V.D. Initial lesion, infection No gangrene	Superficial Localized Spreading	No operation Incision, drainage, amp. of toe Amp. at calf urgent (sulfa drugs, penicillin, anti-biotics)
Purely infectious	No arterial deficiency Infection	No P.V.D. Initial lesion, infection No gangrene	Superficial Localized Spreading	No operation Incision and drainage (sulfa drugs, penicillin, anti-biotics) Incision and drainage urgent (sulfa drugs, penicillin, anti-biotics)

*P.V.D.—Peripheral vascular disease.



Fig. 1. Purely vascular lesion (extensive). Marked impairment of circulation, gangrene, no infection.



Fig. 2. Purely vascular lesion (localized).



Fig. 3. Purely vascular lesion (superficial).

a gangrene. This we term a 1-plus vascular mixed lesion (Fig. 6). Now the purely infectious lesions, or the 4-plus infectious lesions as we call them, are characterized by none of the signs of arterial insufficiency. The initial lesion is an infection and there is no gangrene (Fig. 7). The next logical question one asks is, "This is all very true and very interesting and readily followed, but how does one determine marked, moderate, mild and none—in degree of arterial circulation?"

Clinical Procedure

This is a portion of our presentation which we feel is very important because this can be arrived at clinically. We do not depend upon oscillometers, geiger counters and radioactive indicators at all. Actually we examine the leg. The diagnostic criteria for our examination of the leg are listed in Table II. Table II is an outline of the precedure of clinical examination by which we determine the degree of arterial impairment and the severity and extent of infection. Under the column marked "Signs and Symptoms" we have tabulated the clinical observations made routinely in our cases. These include systemic and local findings.

The important systemic findings are age, evidence of arteriosclerosis in radial, retinal and coronary arteries, concomitant disease and systemic manifestations of the presence of infection. The local findings include all of the clinical observations of the lesion of the foot and the leg for the consideration of the vascular impairment and the extent and degree or intensity of infection.

In the center of Table II there is a col-

umn noting character of observation, whether it is a vascular or an infectious consideration (see footnote Table II). These observations have been cross-tabulated individually against the right hand



Fig. 4. Three-plus vascular mixed lesion. Marked vascular impairment, initial lesion gangrene, superimposed infection.



Fig. 5. Two-plus vascular mixed lesion. Moderate impairment of circulation, initial lesion infection, swelling causes compression of circulation, a superimposed gangrene.



Fig. 6. One-plus vascular mixed lesion. Slight impairment of circulation, lesion infectious.



Fig. 7. Purely infectious lesion. Circulation good, lesion infection in a diabetic patient.

five columns "Classification of the Lesions" (which shows the five classifications of the lesions). In the vertical columns under each of the classifications of the lesions, we have tabulated an adverb of degree giving a conception of the frequency of the occurrence of the finding. Now if one reads each column of the classification of Table II from above down, under each column one reviews a series of clinical observations and these form a definite clinical concept in the mind of the examiner, which at the termination has developed into a concept of this class of lesion. (Take the time to read all five classes of lesions and one will clarify his clinical background.) In this manner, we feel that after these years of application we are still able clinically, without instruments, to arrive at a definite conclusion as to th degree of arterial insufficiency, the severity an the extent of the infection.

It is to be noticed that the x-ray findings ar tabulated as the last finding of our clinical observation of the patient and the leg. This we feel is the proper place for the x-ray findings because calcification casts only a shadow on the x-ray, but the shadow cast on x-ray gives the examiner no concept as to the adequacy of the collateral or to patency of the lumen which may still be present within a calcified vessel. We feel that too often the error is made that a diabetic with a lesion of the foot has an x-ray taken, calcium shadows are found, and an amputation is done high up. This is a typical mistake which we hope the thorough use of the classification will avoid.

Guide for Therapy

The classification which is offered for lesions of the lower extremities in diabetic patients, is clinically arrived at and has value in use as a guide for therapeutic indications. The value as a guide for therapeutic indications is based upon two principles of the classification. The first and most important principle is that surgery can only be done at a level where the arterial circulation is competent to cope with the trauma of the surgical procedure anticipated. The second principle is the degree of infection entering the lesion and how much one can depend upon our modern armamentarium of antibiotic and chemotherapeu-

TABLE II.

TABULATION OF THE DIAGNOSTIC CRITERIA IN THE LESIONS OF THE LOWER EXTREMITIES IN DIABETES

	Signs and Symptoms		*	Classification of the Lesions				
				Vascular	Mixed			Infectious
				"Four Plus" Purely	"Three Plus Vascular"	"Two Plus Vascular"	"One Plus Vascular"	"Four Plus" Purely
Systemic	Age	over 55 years	V	usually	usually	frequently	occasionally	rarely
		under 55 years	I	rarely	rarely	often	frequently	usually
	Concomitant disease	cerebral sclerosis	V	usually	usually	frequently	rarely	very rarely
		coronary sclerosis	V	usually	often	frequently	occasionally	occasionally
		kidney lesion	V-I	nephrosclerosis	nephrosclerosis	nephritis	nephritis	nephritis
		cystitis	I	often late	often	often	occasionally	not rarely
		metastatic abscess	I	never	rarely	occasionally	occasionally	occasionally
	Vascular evidence	arcus senalis	V	usually	usually	occasionally	never	never
		retinal sclerosis	V	usually	usually	often	often	rarely
		radial sclerosis	V	usually	usually	often	rarely	never
		"E.K.G." changes	V	usually	usually	often	often	occasionally
	Infectious evidence	temperature	I	never	usually	usually	usually	always
		pulse rate	I	normal	increased	increased	increased	increased
		leucocytosis	I	normal	increased	increased	increased	increased
		blood culture positive	I	never	often	often	occasionally	occasionally
Local	Lesion	gangrene	V	always	usually early	often late	rarely late	never
	Infectious	redness	I	none	always	always	always	always
		swelling	I	none	frequently	usually	usually	usually
		heat	I	none	usually	usually	usually	usually
		fluctuation	I	none	rarely	frequently	frequently	frequently
		discharge	I	none	rarely	usually	usually	usually
	Pain	claudication	V	usually	usually	rarely	very rarely	never
		"night pain"	V	usually	usually	occasionally	rarely	never
		throbbing	I	never	frequently	frequently	often	usually
		"bone" lesion	I	rarely	occasionally	occasionally	occasionally	occasionally
	Nourishment nails	transverse lamination	V	usually	usually	often	rarely	never
	Skin	elasticity	V	lost	lost	diminished	normal	normal
		dryness	V	markedly	markedly	moderately	slight edema	edema
		atrophy	V	markedly	markedly	moderately	slight	absent
		absence of hair	V	markedly	markedly	moderately	rarely	normal
	Muscle and fat	atrophy	V	markedly	markedly	slightly	none	none
	Lymphatics	ducts infected	I	absent	frequently	often	occasionally	occasionally
		enlarged glands	I	absent	frequently	often	occasionally	occasionally
		tender glands	I	never	frequently	often	occasionally	occasionally
	Foot and Leg — Arterial — Thickening	femoral	V	markedly	markedly	moderately	mild	never
		popliteal	V	markedly	markedly	moderately	mild	never
		dorsalis pedis	V	markedly	markedly	moderately	mild	never
		posterior tibial	V	markedly	markedly	moderately	mild	never
	Foot and Leg — Arterial — Pulsations Diminution	femoral	V	markedly	markedly	moderately	none	none
		popliteal	V	markedly	markedly	moderately	none	none
		dorsalis pedis	V	absent	absent	markedly	slightly	none
		posterior tibial	V	absent	absent	markedly	slightly	none
	Surface temperature		V-I	cold	infectious heat	infectious heat	infectious heat	infectious heat
	Vein refilling		V	prolonged	prolonged	slowed	normal	normal
	Color changes	elevation pallor	V	marked	marked	mild	no change	no change
		rubor dependency lividity	V	extensive	extensive	limited	slightly	no change
	Capillary circulation		V	delayed	delayed	fair	fair	good
	Wound culture	staphlococcus	I	negative	occasionally	frequently	commonly	commonly
		streptococcus	I	negative	commonly	commonly	occasionally	occasionally
		B. coli	I	negative	rarely	rarely	frequently	frequently
		B. welchii	I	negative	may occur	may occur	may occur	may occur
	Xray findings	calcified vessels	V	usually	usually	frequently	rarely	never
		bone necrosis	I	rarely	rarely	occasionally	frequently	often

*Character of observation: V—vascular observation; I—infectious observation.

tic control. With these two fundamental principles as a guide to therapy, in the light of our classification, we have established a guide for therapy in all of the lesions.

The purely vascular lesions, when they are superficial, require no operation and can be followed with conservative therapy as long as the gangrene does not extend and the lesion does not develop a superimposed infection. The purely vascular lesions that extend beyond the toe or into the web space, are known as localized gangrenous lesions and must have a modified guillotine amputation between the ankle and the knee in the absence of spreading infection. In the purely vascular lesions that are extensive, the amputation must be done above the knee, and, in our experi-

ence, a modified guillotine or step-amputation can safely be done at the supracondular level. We see no advantage in the use of a mid-thigh amputation.

In the mixed lesions the indicated therapy is:

The 3-plus mixed lesions (those with arterial insufficiency marked with a superimposed infection) are more urgent and if antibiotic and chemotherapy has not controlled the spreading infection or the spreading gangrene, then an urgent amputation is indicated and most often at the supracondular level, rarely below the knee.

The mixed lesions, which we call 2-plus vascular mixed lesions (those with moderate arterial circulatory impairment together with an infection and often a secondary gangrene) require some little judgment. However, in the presence of modern chemotherapy and antibiotic therapy, the infection can be so controlled and, with only moderate impairment of arterial circulation, the amputation can very often be done successfully with a modified guillotine technique at a level below the knee or mid-calf.

The mixed lesions, which we classify as 1-plus vascular mixed lesions (those with slight arterial circulatory impairment in which the lesion was initially an infection and in which no gangrene is present), can be classified again as the superficial, localized and extensive types. In the superficial type the indicated therapy calls for no operation, but does require antibiotic therapy and patient waiting. In the 1-plus mixed type, where the lesion is localized, there can be attempted incision and drainage and amputation of a toe, provided there is no evidence of gangrene. If the infection is more extensive in spite of the antibiotic and chemotherapy, then lower leg modified guillotine amputation is indicated.

Finally, in the purely infectious type of lesion, where there is no clinical evidence of arterial circulatory impairment, and if the lesion is superficial, conservative treatment and no operation is indicated. If the lesion is localized, incision and drainage and sulfa and antibiotic therapy is indicated, and, if the lesion is spreading, early incision and drainage and diligent and intensive sulfa and antibiotic treatment is definitely indicated. In these purely infectious lesions rarely is amputation indicated, except amputation of a toe to "pie-cut" a foot and adequately drain infection.

But the key here is: Can the arterial circulation cope with the trauma of the surgical procedure? Nowadays, in the face of our modern anti-infectious treatment, many of these cases can be subjected to this treatment successfully. These recommendations have definitely and specifically applied the two principles aforementioned. The first is, infection can be controlled by sulfa and antibiotic therapy, by selection and care regarding sensitivity tests. The second is, the surgical procedure indicated must be judged and the level determined by a careful estimation, clinically, of the circulatory state of the leg. Surgery must be done only at a level where the circulation is adequate to cope with the trauma of the surgical procedure.

Conclusion

In conclusion, we have attempted to present our evidence to show that the surgical lesions involving the extremities in diabetic patients can be classified clinically without instrumental apparatus. We have tried to show that in the light of this classification, arrived at by careful physical examination of the patient and the leg, these lesions so-classified, can be treated conservatively. We have attempted also to present the application of this classification as a guide to the therapy. We have attempted to show, in view of our present-day knowledge of anti-infectious therapy, that this classification can be a guide to conservative therapy in legs where the circulation is only moderately or slightly impaired, or show no impairment. However, we wish to show and state definitely that when the arterial circulatory impairment is such as to be moderate, marked or severe, and the lesion is a gangrenous lesion dependent purely upon the element of arterial circulation, then amputation is indicated.

Also we have attempted to show that this classification can be used as a guide regarding the level of amputation in an attempt to avoid repeated amputation—the principle involved being that the amputation can be done only at the level where the arterial circulation is adequate to cope with the trauma of the surgical procedure. This definitely is true, we feel, and is presented as a result of nineteen or twenty years of experience in applying the classification to these kinds of lesions. All of this presentation, however pre-

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Some Problems of Gerontology

By William B. Kountz, M.D.
St. Louis, Missouri

PERHAPS ONE of the greatest problems of gerontology is its complexity. This complexity causes it to be involved with many different fields of human thinking, and since thought patterns are generally divided into disciplines which add up to the total unit of any problem, we find it difficult to bring together the units for a composite picture of the whole. Thus, the social, medical, biological, economic and psychological aspects are all units of the larger problem of gerontology. However, by far the most important are the medical and the biological aspects, which lead to a clearer understanding of health. They will keep the individual from the diseases that are so frequently associated with years, and thereby making him able to maintain his place in society.

No one would deny that in our present society the different disciplines are so interrelated that they influence one another, and perhaps the problem of ill health comes in for more than its proportionate share. For example, the economic aspect may modify the psychology and the physical state in different ways and cause disease to occur. It is thus important that physicians treating older people evaluate not only a single aspect of the older person, such as the clinical status or the psychology alone, but also the social and other aspects of the individual's existence in order to accrue proper values for therapy.

On this program we must limit our remarks to the clarification of thinking in the field of medicine. This requires the answers to certain questions. One question that needs understanding is: what relation do the common degenerative diseases, associated with the period of midlife and beyond, have to actual aging in years? Formerly it was considered that the degenerative diseases were directly related to age, that it was impossible to turn back time, and, therefore, such conditions were inevitable parts of human existence—perhaps like death and taxes. Only in recent years has clarification of the problem been sufficient to establish that the diseases past midlife, although commonly occurring in older persons, are not a necessary concomitant of growing older. Medical experience has shown that the child with the early-aging syndrome, or so-called progeria, will have the same characteristics and clinical picture as seen in older people. He will die at an early age, in his teens or earlier, with such diseases as coronary thrombosis, heart failure, etc.: the diseases that are so commonly associated with older people.

The development of knowledge of the physiology of the human body, and the amplification of certain factors, have established that the so-called degenerative diseases are probably nutritional in origin. This concept brings up the relationship of various nutritional functions of the body, such as the glands of internal secretion, as well as the nutritional function of other tissues. It also involves the problem of food intake and an understanding of its influence on the human mechanism. Such substances as different types of fats, the lack of certain vitamins, and, more recently, the problem of trace minerals have come into view. In addition, the understanding of stress and strain and the realization that stress within itself will produce definite nutritional disturbances are important. The realization that nutrition and disturbed metabolism of the body may be the cause of degenerative disease makes a more rational approach to the study of health past midlife. In other words, there is a realization that disease changes are the results of exhaustive phenomena that may be corrected, rather than of the addition of years, for which nothing can be done.

A recent article by Dr. Charles D. Marple, Medical Director of the American Heart Association, emphasizes that much of our medical research is not geared to fundamental facts. Dr. Marple emphasizes that there is a parallelism between changes that occur with aging, which is not age, and the increase of cardiovascular disease, of which high blood pressure, arteriosclerotic heart disease and cerebrovascular lesions are the com-

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mon afflictions. He further states that the control of the diseases of the blood vessels does not lie with study of the blood vessels alone, but with study of the scientific problems and facts of age changes, with no single aspect of the problem completely independent. He states that all facets of the problem of aging should be considered, and scientific progress at all levels of the phenomena must be followed in order to develop a complete program.

The recent work on physical or emotional stress and its relationship to the development of heart disease emphasizes that disciplines other than biology must be considered in the control of degenerative disease. Therefore, there is a need for physicians, particularly, to realize that we must encourage and demand that our scientists study the fundamentals of medical research rather than, shall we say, a study on simple heart disease or cancer or arthritis. Physicians should insist upon, and try to obtain always, a better understanding of the physiology of the human mechanism as it grows older.

So much, then, for the problem of the relationship between common diseases associated with midlife and beyond and the process of aging. We would say that it is clear that they are associated, but that age in years plays little if any part in the formation of ill health.

The next problem we must clarify is the possibility of whether medicine can modify the course of diseases that are commonly associated with older people. Since medical thinking is primarily in terms of anatomy and we think of disease and change in these terms rather than in the functional aspect of tissue, let us review some of the restorative changes that have been seen in the older organism.

One can say with definite certainty that anatomical and functional changes may be brought about and a tissue returned very much more nearly to normal if proper stimulation is applied, to which the tissues respond. Since there is a need for a better understanding of the physiology of the body and its application to the older person, it becomes necessary for us to review some of the physiological changes that occur with time, which give evidence that they may lead to the degenerative diseases which we hope to control.

One may conclude that, parallel with age, there are certain changes in the body function and especially in the glands of internal secretion which modify the metabolism, the nutrition, and doubtless contribute to the occurrence of degenerative diseases. Proof of such changes has been developed in relation to the problem of thyroid function. Prolonged thyroid inactivity leads to a low iodine level and disease of the blood vessels.

Deficiencies of the estrogen groups have been shown in the experimental animal, particularly the chicken, to lead to coronary artery disease. Perhaps the most important disturbance of estrogen deficiency in the body has been shown by Korenchevsky to be decreased permeability of all tissue membranes. This decreased permeability leads to poorer nutrition, a change in fluid balance and mineral balance in all the cells. The depletion of the androgenic substances from the body leads to a loss of body protein. Since one of the characteristic changes in individuals past forty is a loss of calcium and protein in the body resulting in senile changes, the use of the sex hormones must be emphasized.

Thus, the studies of body changes emphasize that the hormones play an important part in the nutrition of the body of the older person. The present indications are that most degenerative disease changes are related to disturbed nutrition, and it is therefore logical to assume that a common relationship may exist. It has been shown that certain hormone substances have an ability to protect the body, particularly from the standpoint of repairing and conserving protein. These substances include the androgens, the thyroid, insulin and estrogen, depending upon the need of the individual for the particular hormone. On the other hand, cortisone and corticotropin cause mobilization of tissue substances, particularly proteins, and tend to increase body tissue loss and accentuate the aging process by acting like stress factors. Since stress is a common feature of life, whether physiological, psychological or physical, protection by hormones is very important.

Therefore, not only is proper diet necessary but proper clinical evaluation of individuals must be made in order to establish the combination of hormone substances needed in the body. When any lack is met and supplied, health and the prevention of body deterioration occurring with age are facilitated.

Time will not permit us to go into specific treatment of individuals; we can only give you a

consideration that whatever is needed to bring the body function toward normal is important in therapy. Hormone substances have a definite place but they vary from individual to individual. These all may and should be measured when therapy is anticipated: the thyroid by various techniques, the androgen content of the body by nitrogen balance studies, the estrogen content of the blood, the adrenal cortex by 17-ketosteroids, etc. The question of other substances, such as the vitamins and minerals as well as the newer tranquilizing drugs, must also be considered.

The older person generally needs supplementary feedings and administration of different vitamins. It has been found that some individuals need a relatively higher intake level particularly of vitamin A, vitamin D, thiamine, ascorbic acid, riboflavin, than most will take in by food. It is interesting that many individuals, even though their blood levels may be adequate for these various substances, will respond to supplementary administration. Another factor of importance is the trace minerals which have been found to have a definite function within the body. Copper, cobalt, zinc, and iron, particularly, should be kept on the positive side. As you know, copper has to do with the oxidative enzymes, whereas zinc has to do with the formation of carboxylase, which is involved in the respiration and the proper elimination of CO_2 from the body.

I wish to emphasize the need for attention to the evaluation of older people. We have called your attention to the fact that the older person varies in his physiological response and in the nutritional aspect. These differences reflect a need for understanding of the different responses in evaluation of health. Thus, in the younger person the health reserve is sufficiently broad that one may only consider disease, but in the older person the health reserve has narrowed, and not only is it important to study the disease process which may be presented but also to evaluate the health reserve whenever possible. With this need for a different approach to the study of the physiological mechanism of the body in mind, therefore, one should not only evaluate the individual at one single time, but also study the reserve physiology. As an example, in a study of diabetes one should not simply take one blood sugar which may be normal, but one should also do a glucose tolerance test. One should not take simply an electrocardiogram of the heart, but one should also study the function of the heart by means of a chest x-ray, kymogram, and exercise tolerance test, all of which serve to indicate not only the presence of disease but the degree of potential health that is present. This applies to all important body tissue functions. Since aging is like growing up, patterns are developed and thorough evaluation once every five or six years with clinical follow-up perhaps once or twice a year will enable one to control the health of people past midlife.

Much can be done in the control of health past midlife. A number of patients have been followed over a period of years to ascertain the value of an attempted control of the health problem. Those individuals who had a low iodine uptake and evidence of hypothyroidism were given thyroid and iodine. Those who had evidence of low estrogen and androgen were likewise given the necessary substances. Those who showed an insulin deficiency were controlled by diet and insulin. The diet given the individuals was adjusted to what was considered their needs. None was pressured to participate in the study. The percentage of illnesses or increased degenerative changes that had developed was noted. Projection of the health factor on the treated versus the untreated individuals in the study suggests that at least twenty years of health and life may be added to individuals who are thus properly controlled from a medical standpoint.

SURGICAL LESIONS IN DIABETICS

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sumes that the diabetes is under control and that the diabetic patient is in good nourishment before, during and after the operation.

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Massive Cerebral Hemorrhage Complicating Toxemia of Pregnancy

By Bernard Levine, M.D.
and Murray Hess, M.D.
Oak Park, Michigan

MASSIVE cerebral hemorrhage in pregnancy occurs under two types of circumstances. It occurs either as a complication of a hypertensive state or in an apparently normal patient. In this latter category, it is usually the result of a congenital anomaly or an aneurysmal dilatation of a cerebral vessel. This type occurs much less frequently, there being only thirty-one cases reported in the literature. The following classification of cerebral hemorrhage complicating pregnancy is suggested:

I. Cerebral Hemorrhage in Otherwise Uncomplicated Pregnancy
 (a) Aneurysm
 (b) Congenital vascular anomalies (Occurs before thirty-six weeks)
 (c) Undetermined (Occurs at delivery or postpartum)
II. Cerebral Hemorrhage as a Complication of a Hypertensive State
 (a) Chronic hypertension
 1. Essential hypertension (After thirty-six weeks)
 2. Chronic nephritis (After thirty-six weeks)
 (b) Acute hypertension
 1. Toxemia (After thirty-six weeks)
 2. Oxytoxic drugs (At time of use)

Dr. Harold Mack[7] has recently suggested a grouping of cerebral hemorrhage in accordance with the time of their occurrence in pregnancy. This is of particular practical importance since it not only gives an excellent indication as to the probable etiology of the hemorrhage, but also indicates which cases might benefit from surgical repair of the ruptured vessel.

Goodfriend and Klein[5] reviewed all the cases of cerebrovascular hemorrhage which occurred on the Obstetrical Service of Morrisania City Hospital (New York) from 1930 to 1948. In 25,000 deliveries, there occurred five such cases—an incidence of one in 5,000 deliveries. In this series, only one of the five survived.

Donnelly and Lock[4] reviewed the cause of death in 533 fatal cases of toxemia. They found marked cerebral disturbances in 33 per cent of patients whose deaths were attributed primarily to toxemia. In view of the fact that Abbott[1] states that cerebral hemorrhage of various sizes is a frequent occurrence in eclampsia, since he found it present in 40 per cent of autopsy material, it is probable that all toxemic patients who displayed marked cerebral symptoms have some degree of cerebral hemorrhage. In Donnelly's series, of all deaths from toxemia, 17 per cent exhibited gross evidence of cerebral hemorrhage such as hemiplegia or bloody spinal fluid. If we were to use the survival rate of one in five as reported by Goodfriend,[5] then, the incidence of gross cerebral hemorrhage in toxemia would be about 20 per cent. Sheehan's information is in agreement with Donnelly since he reports that one-third of the patients who die of eclampsia exhibit macroscopic evidence of hemorrhage in the brain at autopsy. Kosmak likewise states that some degree of cerebral hemorrhage is found at autopsy in most eclamptic deaths. Parks[8] reviewed cerebral complications in toxemia. Of 1,009 patients with clinical evidence of late toxemia, there were seven maternal deaths. Four of these deaths showed gross evidence of cerebral hemorrhage. Cannell[2] analyzed all cases of subarachnoid hemorrhage in females over a six-year period. Of these cases of hemorrhage, 25 per cent occurred during pregnancies.

It is significant that the pre-existing condition of the patient is important to the development of cerebral hemorrhage. In the Goodfriend series, all patients had a previous hypertensive condition and developed a superimposed toxemia prior to the cerebrovascular accident. Parks also found that chronic hypertensive vascular disease preceded the development of toxemia and cerebral hemorrhage in three out of four fatal cases of eclampsia.

The time of occurrence of the hemorrhage shows a relationship to the etiology of the vascular accident. In those instances where the cerebral hemorrhage is of congenital origin, about 60 per cent occurred in the first twenty weeks of preg-

From the Department of Obstetrics and Gynecology, Highland Park General Hospital, Highland Park, Michigan.

nancy and 80 per cent occurred in the first thirty-six weeks. In this group, 50 per cent were from aneurysms, 25 per cent from arteriovenous malformations, and 25 per cent from undetermined causes. Conley[3] found that of those cases of cerebral hemorrhage in the non-toxemic group that occur after thirty-six weeks the cause is invariably undetermined. In contrast to this, in the category of toxemia, about 54 per cent occurred during and shortly after delivery with about 80 per cent commencing after the thirty-sixth week. Goodfriend reported that in all of his cases the gestation was over seven-and-a-half months at the time of the hemorrhage.

Grossly, bloody spinal fluid is diagnostic of hemorrhage which has either originated in the meninges or has extended from the brain into the ventricles or subarachnoid space. If cerebral hemorrhage is sudden and extensive, all motor pathways may be blocked preventing convulsions. In the only series in which this was reported, convulsions occurred in 50 per cent of cases. The most common neurological sign was hemiplegia which was noted in 80 per cent of cases. Symptomatology is quite constant, headache of occipital distribution being the most common. Other common signs are nuchal rigidity and loss of consciousness. In about 30 per cent of cases, circulatory collapse and unconsciousness is the first warning of anything abnormal. The physiopathologic signs and symptoms are exactly the same as those of eclampsia—namely, headache and/or coma and convulsions, albuminuria and hypertension. The one differential point lies in the bloody spinal fluid; however, an interval of time must elapse between the time of hemorrhage and the time of the tap or this differentiating point will be lost.

There is no sign which is considered of prognostic value in cerebral hemorrhage of toxemic origin. In hemorrhage of congenital origin, the presence of coma is of prognostic value. Of the cases in which this was reported, three out of four women with coma died while there were no deaths where coma was absent.

Patients who have once had a cerebral hemorrhage should be evaluated carefully as to the advisability of future pregnancies. The consideration of a subsequent pregnancy does not involve the question of toxemia but is decided primarily on the type, extent, and etiology of the previous hemorrhage and the amount of residual neurological involvement. From the limited cases studied, it is believed that if the origin of the hemorrhage is from a congenital anomaly which has been repaired surgically then there is little contra-indication to a subsequent pregnancy. If the hemorrhage was treated non-surgically, and there is no chronic hypertension, then pregnancy would be relatively safe, but, at the first indication of hypertension, the pregnancy should be terminated. However, if cerebral hemorrhage is a complication of a chronic hypertensive state, then further pregnancies are contra-indicated.

There are cases reported where the use of oxytoxic drugs have been implicated in the precipitation of cerebral hemorrhage. Since pituitary extract and ergotrate are used widely, it should be stressed that serious toxic reactions may result from their use. Either may precipitate cerebral hemorrhage or mimic eclampsia. It was found that the most marked response to posterior pituitary extract was obtained in the pre-eclamptic group. It has been found that the vaso-pressor action of these drugs is enhanced when its use is preceded by adrenalin or ephedrine. Ergotrate preparations should not be used in patients who have received vaso-pressor drugs or in the presence of hypertension. This is particularly true in the toxemias. There may occur under those circumstances, an adverse summation of action with a resultant critical hypertension and cerebral hemorrhage.

The following is a report of a case of massive cerebral hemorrhage as a complication of toxemia:

A white woman, aged twenty-two, gravid 2, para 0, was admitted to the obstetric service on Jan. 14, 1956 at seven months gestation because of premature rupture of membranes and onset of labor. The patient had been seen by her physician for routine prenatal examination ten days prior to her admission at which time her blood pressure was 118/76, urine negative, and weight 105 pounds (weight prior to pregnancy 89 pounds). Patient's pre-natal course prior to this was uncomplicated. Past history was non-contributory.

On admission at 12:30 a.m., the physical examination was negative except for a blood pressure of 200/110 and a 4 plus albuminuria. At 1:20 a.m., rectal examination showed the cervix dilated 3 cm. and slightly effaced, and the presenting part at mid-pelvis. She was given Seconal gr. III orally which she vomited. She was then given Na Amytal gr. 3¾ I.M. At 2:20 a.m., the patient complained of mild headache. At 2:40 a.m., the patient was seen by the attending physician who noted a complete lt. hemiplegia. Blood pressure was 160/90. Dilatation at this time was 5 cm. and effacement 80 per

cent. Obstetrical consultation recommended vaginal delivery as soon as the dilatation was complete. Neurological consultation was in agreement that delivery should be as soon as possible. Spinal tap showed grossly bloody spinal fluid. At 3 a.m., dilatation was 8 cm., 80 per cent effaced, and at plus 2 station, at this time patient had first convulsion. At 3:45 a.m. dilatation was complete, and patient was taken to the delivery room. At this time, she had a second convulsion. Under pudendle block and oxygen inhalation, patient spontaneously delivered a stillborn infant weighing 2 pounds, 15 ounces.

For the next eight hours, the patient had several convulsions which were each controlled by I.V. Na Amytal. The patient also developed acute cardiac failure and pulmonary edema which required digitalization. Her condition remained relatively unchanged until the third postpartum day when diuresis began, and the patient regained consciousness and was able to eat and to talk rationally. With the exception of the hemiplegia, the patient recovered sufficiently to be discharged on the twelfth postpartum day to convalesce at home. The hemiplegia gradually improved and in January, 1957, at which time the patient was last seen, there had been total recovery with the exception of a very slight left sided muscular weakness.

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25101 Coolidge
Oak Park 37, Michigan

CORONARY DISEASES AND ANGINAL SEIZURES

(Continued from Page 975)

for routine use. Nitroglycerin may be continued as needed although its use can usually be eliminated within a short time.

Kelid is the most successful form of therapy we have used in angina pectoris. It deserves clinical trial in patients with the anginal syndrome, and the possible long-term myocardial improvement which it may effect should receive further study.

The underlying mechanism of angina pectoris is the failure of the heart muscle to receive an adequate blood and oxygen supply at a moment when it needs it most. The underlying pathology responsible for this coronary circulatory inadequacy is sclerotic narrowing and occlusion of at least one main artery or one of its branches. The symptom defining the mechanism and the pathology is pain and its radiation syndrome. The pain is a hunger pain analagous to the infant's cry of hunger.

It seems highly probable that Kelid effects a greater coronary arteriolar capillary and myocardial vascular reservoir during diastole. Oxygen is the more readily available for the ordinary metabolic activities of the heart muscle.

Thus Kelid affords the anginal sufferer an adequate circulatory and oxygen supply to meet the demands of a usual and ordinary twenty-four-hour day. We cannot expect any more than that.

The drug is not incompatible with the digitalis group, or with the antispasmodics or with quinidine, or, in fact, with any remedy your anginal sufferer may require at any time. So unique and seemingly selective in its action that it stands alone and has no incompatibilties.

Thus ends the story. The drug Kelid is submitted to you for your consideration and trial and I hope that you find your results as gratifying as I have found mine.

175 North Broadway
Nyack, New York

Laparotomy Following Abdominal Pregnancy

By Bernard Levine, M.D.
Oak Park, Michigan

IN OUR paper published in the February, 1957, issue of THE JOURNAL of the Michigan State Medical Society, we reported two new cases of advanced abdominal pregnancy. This is a supplemental report concerning one of those cases, and is being submitted because it represents new information regarding one aspect of abdominal pregnancies which has not been previously reported.

From the literature it was ascertained that the opinion was widely held that it was safest to allow the placenta to remain intact and undisturbed when delivering the baby from the abdominal cavity. This, we feel sure is the case, but there has been lacking accurate information relative to the course of events pertaining to the placenta in cases managed as indicated above. It is known that the placenta may become involved in an infectious process with abscess formation which may require surgical drainage. But where no complications existed it was believed that the placenta underwent a gradual process of absorption and that this process was completed in less than two years. This viewpoint was substantiated by the few cases which required abdominal surgery for other reasons subsequent to an abdominal pregnancy. In these cases no evidence of remaining placental tissue was noted and no pelvic or abdominal complications arising from the placenta occurred.

In our *Case 1,* the patient began to have lower abdominal pain referable to an adnexal mass and underwent a laparotomy four years after the delivery of the fetus with the recovery of almost all of the placenta excepting a small portion which had been absorbed. This is believed to be the only such instance reported as is the photograph of the gross specimen (Fig. 1).

Supplemental Case Report

The patient was again seen in early 1957 because of episodes of right adnexal pain. Examination revealed a painful mass in this region. The possibility of an inflammatory condition was considered and the patient was given antibiotic treatment which elicited no appreciable change in her condition. She was seen again one month later. Her symptoms were much the same but the mass felt somewhat larger. Surgery was done in June, 1957. Pelvic exploration revealed a large, indurated, partially necrotic, irregular mass primarily in the region of the posterior leaf of the right broad ligament with some extension to the uterus and lateral pelvic wall. There were no extensive adhesions and the dissection was accomplished with ease and with no bleeding. The normal gross structure of the adnexa was completely destroyed. The patient made an uneventful recovery and left the hospital in six days.

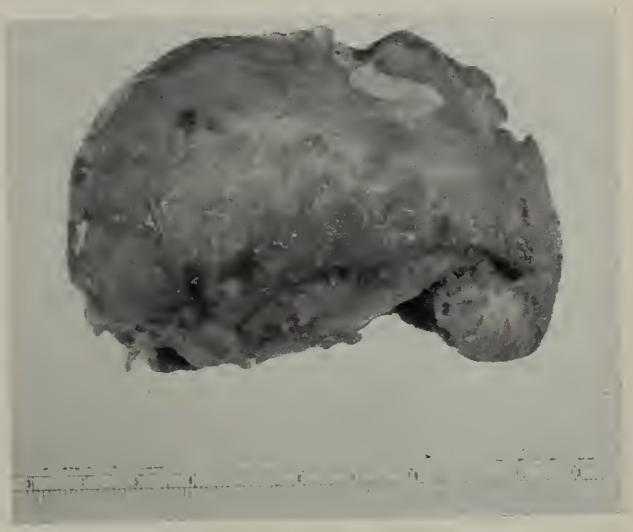


Fig. 1. The necrotic area is seen in lower right. Ridge on top is believed to be remnant of tube.

Although this information should not alter the previously stated management regarding the placenta, it should be kept in mind that failure of absorption of the placenta may be the origin of future symptoms.

25101 Coolidge
Oak Park 37, Michigan

Obstetric Hemorrhage

By C. Paul Hodgkinson, M.D.
Detroit, Michigan

HEMORRHAGE, for this presentation, is defined as abnormal bleeding from the internal pudendal vascular system, including the utero-ovarian axis, incident to or as the result of pregnancy and its cognate functions. It occurs for three reasons: (1) a break in the continuity of the vessel walls; (2) lessened efficiency of the mechanical hemostatic power of the myometrium; or, (3) deficient blood coagulation.

Potential for Hemorrhage

Pregnancy is accompanied by local changes which highly favor the chance for hemorrhage of massive proportions. Beginning with conception and ending with delivery, there occurs a reorientation of vascular dynamics. With the homeostatic balance dominated by the demands of the developing fetus, blood is directed to the site of implantation in an ever-increasing volume. By the physiological processes of hypertrophy and hyperplasia, the pelvic vascular system regularly accommodates to a blood volume calculated to increase more than sixty-six times.[1] With this segment of the vascular system burdened with an augmented blood volume of this magnitude, hemorrhage of cataclysmic proportions looms as a constant threat.

Nature has provided safeguards. The circulating blood volume is increased. Some of the constituents of the coagulation mechanism, particularly plasma fibrinogen, are increased in concentration. The clotting time is usually shortened. Anatomical and physiological factors combine to damp off venous and arterial pressures to levels safe for retroplacental circulation.

Although the vagina and the lower uterine segment must depend upon the coagulation of blood for hemostasis and the arrest of hemorrhage, the uterine fundus gains added hemostasis from myometrial contraction. It is a curious and propitious anatomic fact that neither the ovarian nor uterine arteries directly enter the uterus. Arising from the laterally-placed utero-ovarian arterial axis, blood gains access to the endometrium through secondary arteries which traverse the interstices of the intertwining myometrial fibers. By this anatomic arrangement and because of the power of the myometrial fibers, arterial blood can largely be excluded from the puerperal uterus. Eastman[2] likened this phenomenon to the action of living ligatures, and declared it to be the most important fact in obstetrics (Figs. 1 and 2). Comparison of the utero-ovarian vascular pedicle before and after extraction of the infant by cesarean section dramatically demonstrates the effects of this powerful hemostatic property.

Obstetric hemorrhage strikes with unpredictable incidence and frequency. If hemorrhage is to be toppled from the pinnacle of causes of maternal death, improved diagnosis must be coupled with improved treatment. Transfusable blood has been made more readily available to a larger segment of the population through the untiring efforts of those concerned with blood bank programs. Yet patients continue to die of obstetric hemorrhage when they are figuratively "bedded-down" beside well stocked blood banks.

Too frequently the cataclysmic proportions of obstetric hemorrhage are not appreciated. That sudden death may occur in a matter of minutes is exemplified by the syndrome of spontaneous intraperitoneal rupture of the utero-ovarian veins. Over 75 per cent of the patients reported have died when rupture of the veins occurred during labor. The time, from onset of symptoms to death, was frequently less than one hour. Postmortem studies have disclosed hemoperitoneum of over 3,000 cc. (volume). When the magnitude of the volume of blood carried in the pelvic vessels is contemplated, it is not difficult to understand how a rent in the wall of a blood vessel in the broad ligament could vent a hemorrhage of that size.

In placenta previa, factors other than the augmented blood volume are important. Here, orientation of vascularity to the placental site is an added onus. Because, in this area of the birth canal, hemostasis comes mainly from blood coagulation, unrestrained hemorrhage may issue from

From the Department of Gynecology and Obstetrics, Henry Ford Hospital.
Presented at the Michigan Clinical Institute, Detroit, March, 1957

the open blood sinuses after expulsion of the placenta. There also is an increased tendency for rupture of the lower uterine segment in placenta previa. The greatly thinned, highly edematous and friable retroplacental tissue may give way to the pressure of normal spontaneous delivery of the infant through the mid pelvis. This pathological event adds tissue trauma to the already high potential for hemorrhage, and occasionally critical fibrinogen depression of the fibrinogen-fibrin conversion syndrome may further complicate the enigmas of diagnosis and treatment.

In the uterine fundus, deficient myometrial hemostasis is a constant hazard. The open retroplacental blood sinuses are probably the most frequent sources of excessive blood loss after delivery. If arterial pressure can overcome the resistance offered by myometrial contraction, hemorrhage is likely to occur. A small hard uterus is the best clinical index of efficient myometrial contraction. Any factor which diminishes full contraction of each myometrial fiber tends to decrease uterine hemostasis. Myometrial fatigue from over-distention or prolonged labor, myometrial injury from uterine rupture, and the presence of intrauterine space-occupying bodies are some of the factors inimical to maximal contraction of myometrial fibers. The presence of placental fragments, hematomas, and intrauterine gauze packs lessen the salutary constricting influence of the contracting myometrium.

Hypofibrinogenemia may be a factor of importance in conditions other than abruptio placentae. Evidence has accumulated to indicate that the intravascular conversion of fibrinogen to fibrin is a fundamental physio-pathologic reaction to thromboplastinemia, secondary to cell trauma. Many acute catabolic influences such as abruptio placentae, long intrauterine retention of dead fetus, amniotic fluid embolism, surgical and accidental trauma, incompatible blood and fulminating eclamptic convulsions have the power to depress circulating fibrinogen.

It is important to appreciate that the syndrome of massive fibrinogen-fibrin conversion has dual pathologic potentialities: first, embolization, then hemorrhage. If the process is precipitous and massive, the symptoms are chiefly embolic; if more gradual, hemorrhagic.

Four general clinical types have been recognized: hyperacute, embolic (amniotic fluid embolism); acute, embolic-hemorrhagic (abruptio placentae); chronic hemorrhagic (dead fetus syndrome); and the delayed embolic (lower nephron disease of the kidney).

In obstetrics, the diagnosis should be suspected whenever shock and/or hemorrhage are evident. The diagnosis is easily confirmed, without detailed laboratory study, by the use of the "clot observation test." Five cubic centimeters of uncoagulant-treated blood should be observed at room temperature for clotting behavior. The disease is not present if the blood clots in eight minutes and shows normal retraction without evidence of lysis within one hour. The disease is probably present if a flimsy clot forms and undergoes lysis within twenty minutes. The plasma fibrinogen range is probably between 100 and 150 mgm. per 100 cc. of plasma in such circumstances. The disease is certainly present if no clot forms, indicating fibrinogen depression below the critical level of 90 mgm. per 100 cc. of plasma.

Treatment

The treatment of obstetric hemorrhage should be preplanned and aggressively executed. Therapeutic efforts can be categorized into three general disciplines: emergency, diagnostic, and definitive.

Measures of Emergency.—Prompt recognition is the first essential step. A newly delivered patient should be carefully observed by trained and experienced personnel. The blood pressure should be stabilized, the pulse should be less than 100 per minute, and the uterus firmly contracted and confined to a position in the lower abdomen, before the patient is permitted to be returned to her room.

When there is a suspicion of hemorrhage, observation of the patient should not be left to the student nurse or inexperienced intern. Too frequently a large volume hemorrhage may be entrapped between the vaginal introitus and the contracted uterine fundus with a gradually rising uterine fundus as the only significant symptom. The unwary observer fails to recognize the danger until one of experience manipulates the fundus and expels a hematoma of 500 to 800 cc. volume. Another disquieting finding is the continuous trickle of blood from the vagina. Too frequently and too quickly does this insidious blood loss assume dangerous proportions.

The second essential step of the measures of emergency is the initiation of a preplanned pro-

gram: an urgent call to the blood bank for 2000 cc. of perfectly matched, fresh whole blood; immediate institution of two intravenous infusions using large bore needles (15 gauge); intravenous administration of 5 per cent glucose solution containing 2 cc. (20 units) oxytocin* per each 1000 cc. at a rate of 20 to 40 drops per minute; appropriate uterine massage; head-down shock position on the delivery table; the administration of oxygen by face mask; and the mobilization of a team of competent assistants including an anesthesiologist, other obstetricians, a hematologist, a vascular surgeon and additional residents.

The utilization of nondefinitive emergency measures should be reserved for fulminating hemorrhage. Aortic compression, applied manually or by means of a spanish windlass, is better accomplished by direct application of a Potts aorta clamp applied above the level of the renal vessels. The experience of vascular surgeons has shown that such aortic pressure is tolerated for periods of time up to one-half hour. A Potts aorta clamp should be available in every delivery room. Measures of aortic compression are probably less traumatic than blindly clamping the uterine vessels from the vaginal approach.

Measures of Diagnosis.—The second stage of treatment is diagnostic. The general diagnosis of "obstetric hemorrhage" is too vague to be of practical value. Every effort should be made to qualify the diagnosis to a more specific category. It is important to remember that initially there may be one main reason for hemorrhage but as the condition of the patient deteriorates all three reasons may combine into one catastrophic state.

Blood for the "clot observation test" should be obtained at half-hour intervals and be under the surveillance of a competent observer. Undue trauma, mismatched blood, multiple blood transfusions, and plasma expanders have caused fibrinogen depression.

Re-examination of the patient should be accomplished under favorable conditions. This means on the delivery table with adequate assistance, exposure, good light, and sufficient and proper instruments. The vaginal walls and the cervix should be carefully inspected. Rents in the lower uterine segment may not extend through the cervical ring and may be difficult to locate, particularly when they extend into the broad ligament and not into the peritoneal cavity. The fundus should be explored for retained placental fragments and sites of rupture, both complete and incomplete.

Measures of Definitive Therapy.—Definitive therapy depends upon precise diagnosis. Vaginal lacerations are advantageously repaired using a continuous suture of No. 0 chromic gut. The suture should be started at one end of the laceration and worked toward the other. Traction on the suture helps expose the next area for placement of the needle.

In placenta previa, bleeding from the lower uterine segment may be exceedingly brisk. Only the most prompt and efficient treatment will be of avail. Tamponade through a large rolled towel placed in the lower uterine segment mediated by manual pressure from one hand placed in the vagina and the other placed on the abdomen over the uterine fundus, will be effective in most cases in arresting hemorrhage from the large misplaced blood sinuses.

Hemorrhage from the boggy, poorly contracted uterus is better controlled by efforts to stimulate more efficient uterine contraction than by the placement of an intrauterine pack. The administration intravenously of 10 cc of 10 per cent calcium gluconate has been found of advantage, as has been the inhalation of 100 per cent oxygen, for the patient whose uterus refuses to contract.

In patients suffering from hypofibrinogenemia, search for sites of trauma is essential. It is a well-known clinical fact that in the absence of laceration, patients whose blood is made completely uncoagulable by deficient fibrinogen or the administration of anticoagulants, may deliver without excessive hemorrhage so long as myometrial contraction can be efficiently maintained. Fortunately, the natural regeneration of fibrinogen is usually accomplished promptly. If the initiating cause for fibrinogen depression has been eliminated, as usually occurs with delivery in abruptio placentae and in the dead fetus syndrome, the fibrinogen will have recovered to safe levels within two hours.

Finally, sometimes a surgical procedure is necessary for patients suffering from critical fibrinogen depression. This may mean cesarean section for abruptio placentae or hysterectomy for trauma. The administration intravenously of 10

*Pitocin, Parke Davis & Co., Detroit, Michigan.

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What Is Research?

By Willard C. Olson, Ph.D.
Ann Arbor, Michigan

IT is appropriate on this occasion to give special attention to research as an aspect of "Cooperation in the Study and Research of the Training, Care, and Prevention of Mental Retardation." We are certain in the period just ahead to have increased research activity. Thus, under Public Law 531, the 84th Congress of the United States made funds available to the Office of Education for co-operative research in mental retardation. The writer is serving as the co-chairman of the Research Advisory Committee, established to advise the Commissioner of Education in the evaluation of projects. Contracts made under this law have involved colleges and universities and state educational agencies.* They are concerned with problems of learning, growth and development, and social and emotional factors. Other agencies of government similarly have funds for the investigation of problems relevant to the medical and social fields or for the development of personnel. From a relatively small fund designed to cover many areas of research in the utilization of human resources, the University of Michigan has made some allocations to the study of problems of the mentally retarded. Proposals are under discussion for the preparation of increased personnel and a larger body of trained investigators. It is thus timely to ask the question, "What is Research?"

Research means many things to many people. The process consists in the orderly treatment of data to answer questions. Conclusions are dependent upon the questions asked, the perfection of the instruments, the techniques for securing the data, and the conditions under which the data are collected and analyzed. The research process may lead to conclusions that are simple and limited to highly specific situations, on the one hand, or which may be highly complicated and lead to sweeping conclusions, on the other. Creativity and expert knowledge in a specialized field are required of the investigator who is to make an addition to knowledge and practice.

If we accept as research any orderly treatment of the data of observations we include within it descriptions of the nature of things. Where and how people live, what they do, how they earn a living, what they believe, and what illnesses and complaints they have are examples in the human field of simple, basic, operations that may be described. Accurate observations and descriptions of natural events are the beginnings of scientific study. The records and reports of the trained person are commonly better than those of the untrained person.

We encounter another type of research in hospitals, institutions, schools, and government which is sometimes called "housekeeping" research. This is often a simple matter of counting, tabulating, surveying, and describing what we do. Such research often assists us in getting a better grasp of the dimensions of our job, what the costs are, and an appreciation of the extent of a problem or a need.

As soon as one starts sorting the data so as to see how they go together, he is engaging in a process called relational research. At its simplest level this may consist, for example, in tabulating accidents or diseases according to age or sex. Tabulations of the incidence of mental retardation by rural or urban residence, by occupational groups, by education of parents, by income levels, and by diseases of the mother during pregnancy would be examples of the routine analysis of relationships. Statistical techniques are available for studying relationships in a more precise and quantitative fashion. The coefficient of correlation is one of the simpler devices for expressing the association between variables. A coefficient of 1.00 indicates a perfect relationship between the factors being studied and a coefficient of 0 indicates complete absence of relationship. A positive or a minus sign indicates a direct or inverse relationship. Much work of this type has been done. Thus we find a coefficient of .50

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*Herbert S. Conrad. Projects Under the Cooperative Educational Research Act (Public Law 531) Higher Education, 13:166-170, May, 1957.

between tested intelligence and ability to read, a coefficient of .70 between height and weight, a small coefficient such as .20 between height and intelligence. Small relationships mean that many other factors are involved. Appropriate techniques are also available to determine the contribution of each factor to the total variation encountered in a measured characteristic. A coefficient indicates association but usually cannot be interpreted as causation.

Many persons identify research primarily with controlled experimentation. Perhaps the largest experiment of all time was conducted recently when experimental and control groups were set up and records then kept for the subsequent incidence of poliomyelitis to determine the effectiveness of the Salk vaccine. Children in the experimental group received the vaccine and those in the control group a placebo. At times such experiments are the only final answer. The conditions for an adequate experimental design will be described subsequently.

Perhaps the most complex result of the research process consists in the construction of theory. The development of theory is designed to give greater mastery of a field. With adequate theory research can take on a more planned character and not be as dependent on random "cut and try" testing. The evolution of theory involves the identification of concepts or propositions, the derivation of hypotheses from these, the testing of hypotheses, the making of predictions of what is probably true, and the verification of these predictions.

At times a distinction is made between pure and applied research. So-called pure research is designed to secure knowledge for its own sake, to know more, to know with precision, and to develop a body of scientific theory. Applied research combines findings from many sources, correlates them with experience and wisdom, and plans a course of action. The goal is to produce change or movement in complex situations. The criteria for the success of applied research may be production, utility, economy, comfort, and satisfaction.

Research begins with the formulation of the problem. For example, one might ask the question, "Do mentally retarded children develop better in segregated classes or in regular classes in the public schools?" The experimental factor would be the contrast in the school experience. In order to get a sure answer to the question, the investigator would need to state the precise types of development in which he was interested and describe carefully the criteria for measuring change over a period of time. It would also be necessary to have comparable children in regular classes and in segregated classes. These should be sufficient in number so that reliable statistical conclusions may be drawn. In such comparisons it might also be possible to carry a comparable institutional group or a group of children who remain in their own homes. The possible sources of error are numerous in the establishment of experimental and control groups. The experimental factors are at times difficult to specify in terms that will permit the replication of the study. Repetition and verification under the same and varied conditions are a necessity in research.

For most types of conclusions with human beings it is necessary to have a control group since practically everything changes with time without the application of an experimental factor.

A simple experimental design would be as follows:

Experimental group: Initial Test — experimental factor—End Test—time lapse—Final Test

Control group: Initial Test—time lapse—End Test —time lapse—Final Test

A great many unjustified research and practical claims have been made because of failure to know what would happen in an equivalent control group without treatment. For example, the effectiveness of glutamic acid in mental deficiency was first studied without control groups and resulted in claims that could not be supported when control groups became a part of the design. Here a complication was not only the time factor but also a statistical problem known as the "regression" effect. In this, a group selected on one test tends to regress toward the mean on a second test whenever the correlation is less than 1.00. Thus high testing children tend to test less well and low testing children to test better on a second measurement. In the educational field this same type of unjustified claim often comes about in studies of remedial reading where a great improvement may appear in the treatment period. Such changes may occur in a control group of children without the treatment. The difference, even if real, may not persist over a period of

time after the remediation is stopped. Thus a follow-up after a time lapse is commonly advocated in human study. Important growth theory is involved. Phonics has recently come in for advocacy as a cure for poor readers because the persons who make the claims are not sophisticated in research design or in the explanations of individual differences among children.

There are many research designs of a less rigorous experimental character which, by statistical and other means, lead to conclusions of quite sweeping importance. For example, it is interesting and worthwhile to know that children become more and more unlike on most measurements as they grow older. It is valuable to know as we have found in our developmental studies that there are children who surprise us by a future status that could not have been predicted from their early history. It is interesting and valuable to know that children seek experience and nurture according to their stage of readiness and their needs. Nature and the environment have performed many experiments. It is possible to make some evaluations of the effects of deprivation by contrasting individuals and societies with and without schools, with and without medical services, with and without adequate diets, et cetera.

While research is often pictured as a cold, scientific, and orderly process it should be pointed out that it is also related to the values and value systems of a society or of a period in time. Thus, what investigators work on may be determined by the availability of financial support, by whether we have a threat of war or a promise of peace, and whether there are opportunities for large economic or other rewards in the event of success. An investigator eager to extend the boundaries of the known is usually at the core of every important problem.

Societies that limit education to a small and select group find different problems for investigation than a society which is dedicated to maximizing the potential of all members. The concern for the individual in American culture leads to a search for means for the improvement of the development of all.

There is much need for the communication of the findings of research and the practical implications for practice. This is accomplished by scientific publications, lectures, and through mass media. Investigators must communicate among themselves in order to share and advance in findings and theories. The practitioners must be in close touch with the investigators in order to move soundly. The policy makers on boards and in legislative halls must know the dimensions of the problem and the nature of the solutions. The general public needs to move from apathy and misinformation to concern and informed support. Thus there is a need for interpreters to relevant publics at both the scientific and practical levels. The process of information and communication is in itself susceptible to research study.

Summary

Research is seen to consist in the orderly treatment of basic observations and data through an expanding degree of complexity and generality leading to descriptions, relations, experiments, development of theory, predictions, application, and communication.

OBSTETRIC HEMORRHAGE

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grams of commercially available human fibrinogen will promptly raise the fibrinogen level and reestablish effective coagulation.

Unfortunately, the general use of human fibrinogen must be deprecated because of the possible presence of the virus of infectious hepatitis. Satisfactory methods of sterilization have not been discovered, as yet, and delayed deaths from induced hepatic necrosis have been reported. For the present, the use of human fibrinogen should be reserved for highly dangerous hemorrhage resulting from critical fibrinogen depression. Should it have been necessary to administer fibrinogen, the injection of gamma globulin in high dosage every five weeks for a period of six months has been suggested as prophylaxis to hepatitis.

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The Effect of Sympathectomy on Muscle Circulation

A Fluorescein Study

By Manuel Fernandez, M.D.
Detroit, Michigan

THERE IS still no general agreement as to the effect of the release of vasoconstrictor impulses on the normal circulation of skeletal muscle. The results have been contradictory both in man and in the experimental animal. On the other hand, all agree on the effect of sympathectomy in the circulation of the skin of humans and lower animals. It is said that the main function of the skin vessels is the regulation of body temperature, while in the muscles the vessels are essential for supplying blood to meet the energy requirements of activity.[19] This functional difference would make sympathectomy of little value to some, since the local metabolites are responsible for vasodilatation during exercise, and, to support this, it has been shown that the post-exercise hyperemia of normal muscle is not affected by previous sympathectomy.[3] The settlement of this problem has more than academic interest since its application in clinical medicine is of paramount importance in several pathological states. In arterial occlusive diseases, the value of sympathectomy on the muscle circulation is seriously questioned by many authors,[19,5,20] and favored by others.[8,18] In acute arterial occlusions, this form of therapy is also a matter of controversy in regard to limb and patient survival.[9]

The question of collateral circulation becomes, then, a primary objective in these investigations: are the collateral vessels under the control of vasomotor fibres, or is time the major factor in their development? Here again, there are those who deny sympathectomy any effect on the rate of blood flow or the size of the collateral vessels after the occlusion of the main trunk[9,2,8] and those who demonstrate an improvement after sympathectomy.[2,4]

The study of sympathectomy in these pathological states should be preceded by and based on its effects on the normal muscle circulation of both the experimental animal and the human being. Such work has been done by many, but again with different results. Grant,[13] Kunkel and Stead,[15] Freeman and Montgomery,[10] and Gage and Ochsner[12] have reported favorable results of sympathectomy on muscle blood flow, while Abramson and Ferris,[1] Freidlander et al,[11] and Stein et al[20] found no improvement. Elkin and Cooper[5] even found a diminution of blood flow after this procedure.

Many methods have been used in the past to study this problem: muscle temperature,[17] femoral artery pressures,[21] plethysmography,[1] radioactive Na,[5] arteriograms,[3] micrometric studies,[9] and electrical stimulation.[6] The purpose of this study is to demonstrate by means of fluorescein injections the effect of sympathectomy on the blood flow of the normal gastrocnemious muscles of the dog.

Method

The gastrocnemious muscles of anesthetized dogs were skinned and dissected bilaterally from their insertion at the Achilles tendon to their origin in the leg. These group muscles are easily separated from the other muscles of the leg without severing any of their supplying arterial trunks, since these arise from the distal caudal femoral artery, a branch of the superficial femoral given off just above the popliteal space.[16] Thus this cephalad dissection leaves these arteries intact. The lumbar sympathectomy was always done in the left side and four or five ganglia from the intervening chain were removed. This operation was completed 30 to 60 minutes before the injection of the fluorescein. Fluorescite† 10 cc. was injected directly into the abdominal aorta as rapidly as possible, and directed caudally. Both gastrocnemious muscles were placed under a portable 100-watt ultraviolet lamp. The amount of fluorescein visualized within three to five minutes after its administration served to determine the amount of muscle-blood

From the Highland Park General Hospital, Department of Surgery, Detroit, Michigan.
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†Fluorescein 5 per cent with Sodium Bicarbonate. C. F. Kirk Co., N. Y.

flow and the effect of unilateral sympathectomy. Intraperitoneal nembutal anesthesia was used, and attempts were made to maintain all animals in light anesthesia throughout the studies. This would tend to avoid the so-called "chemical sympathectomy" of the unoperated side.[9]

Results

Fifteen dogs were used. The dissection of the gastrocnemious muscles was carried out with minimal blood loss and preservation of the venous circulation of the skin flap. Care was taken to keep the field clean and to mobilize the muscles sufficiently to bring them together and parallel to each other for closer and more accurate observation and comparison.

Five controlled studies were made in which the fluorescein was injected in the normal animal and its distribution studied. The patterns of distribution on the muscles in question were almost identical in both gastrocnemious, and consistent in all animals. The fluorescence is first seen at their origin and slowly spreads distally in all of the belly, reaching into the tendinous portion. At the end of five minutes, maximal fluorescence is attained. Ten unilaterally sympathectomized dogs were done. In all of these dogs, the sympathectomized side demonstrated an increase in the amount of fluorescence as compared with the normal side. This increase was well maintained throughout the period of observation. It is important to point out here that the fluorescein made its appearance simultaneously in both muscles, whereas the penetration and extent of its distribution was considerably better in the sympathectomized side.

Discussion

Almost all the blood flow studies in the literature are total blood flow studies.[8] This, of course, holds true mostly for the human subject where plethysmography has been widely used.[20] In the experimental animal most of the work on muscle circulation has been done on the effect of sympathectomy on the collateral circulation after previous ligation of the main arterial trunk,[17] and on the effect on the collateral circulation after the establishment of an arteriovenous fistula.[4]

In our experiments, the arterial supply to the gastrocnemious muscles is derived almost exclusively from the distal caudal femoral artery, a collateral of the superficial femoral. Preliminary studies in our laboratory demonstrated that ligation of the deep femoral and of the proximal caudal femoral artery alone did not diminish appreciably the blood flow to the gastrocnemious, while ligation of the superficial femoral just proximal to the origin of the distal caudal femoral artery resulted in almost complete ischemia to these muscles.[7]

It is a well-established fact that sympathectomy has its maximal effect at the arteriole where peripheral resistance is upheld by vasomotor impulses. That the main arterial trunks are not significantly dilated by vasoconstrictor release has been shown before.[14] These principles when applied to our results would support the following conclusions: First, that the superficial femoral artery in the sympathectomized side was not affected significantly by this surgical procedure nor was the rate of blood flow, since the fluorescein reached the gastrocnemious muscles at the same time in both the normal and sympathectomized side. Second, that the muscle blood flow was increased in the sympathectomized side due to a lowered peripheral resistance at the arteriole level.

Within the limitations of our experimental method, it is apparent that sympathectomy increases the blood flow in the normal skeletal muscle of the dog.

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Atropine Coma Therapy: Report of a Death

By Gordon R. Forrer, M.D.
Northville, Michigan

REPORTS of deaths due to atropine toxicity have rarely appeared in medical literature. There is a widespread belief that atropine is a "dangerous" drug. The literature (and our own experience in the use of atropine sulfate in exceedingly large amounts) suggests that the drug is relatively non-lethal. As much as 15 grains, or 1,000 mg., has been injected with recovery.[1] For the most part, reports in the literature on the toxic properties of atropine sulfate emphasize febrile response, glaucoma, and the delirifacient properties of the drug. The following case is thought to be of especial interest, since a measured amount of atropine was administered with therapeutic intent.

Atropine coma therapy has been administered to somewhat over 900 mentally ill patients to date. The treatment is administered four times a week. Atropine sulfate is given by intramuscular injection, beginning with 32 mg., and increasing the dosage as high as 212 mg. This size dosage contrasts dramatically with the conventional 0.5 mg. of atropine given by mouth. The ensuing coma can be compared with insulin coma, produced for similar therapeutic indications. Atropine detoxification is spontaneous, and is usually complete between six and eight hours after injection. This case is the only known death to have occurred to date with atropine coma therapy.

Case Report

History.—C. V., a fifty-three-year-old white man, was admitted to the Ypsilanti State Hospital on October 27, 1949. He had worked as an attendant for five years prior to admission. There was information to suggest that he had been delusional, but still capable of working adequately during this entire period of time. There was a long history of alcoholism and "peculiar behavior." At the time of his admission there were clinical findings suggestive of a schizo-affective reaction with manic trends. He would sing and talk to himself, had grandiose ideas in regard to money and his sexual prowess, and was delusional—believing that his employer had broadcast over the radio that he, the patient, was to be appointed Secretary of State. He accused his wife of plotting with the neighbors to have him shot so that she could be unfaithful to him. He insisted that the lights on automobiles were signals intended to convey messages about himself and he expressed the intention of getting a gun and killing his persecutors. He related to his wife that he had killed people, and told her that he should have killed her, too. He stated that he had exonerated himself from these actions by "wearing a brown suit." He bragged that he had been discharged from the navy as a rear admiral.

On admission to the hospital he stated that all of his trouble was because of his wife. He felt that he was railroaded into the hospital and insisted that his wife was unfaithful to him, convincing evidence to the contrary, notwithstanding. There was considerable elevation in mood. He was well oriented in all three spheres, but his insight as to illness was absent. He stated, "I am an employe. I'm not a patient. There is nothing wrong with my mind. I'm not crazy. I'm not a bug. I'm a thirty-third degree Mason." There was flight of ideas, circumstantiality, and a moderate degree of agitation.

Physical examination was not remarkable. All laboratory examinations were normal. Blood pressure was 142/82; pulse was 74. There were no murmurs on auscultation. After an adequate period of observation, without any change in his mental condition being observed, it was felt by the medical staff that he would benefit by receiving atropine coma therapy. Accordingly, he was administered 32 mg. of atropine sulfate by intramuscular injection. During the first hour the patient's blood pressure rose to 150/90 and at the third hour had dropped to 130/60. At the sixth hour the blood pressure was 120/50, and at the eighth hour the blood pressure was 120/50. His pulse rate varied between 130 and 120 until the eighth hour, at which time it was 100. Respirations, which were 20 before the initiation of therapy, rose to 30 and remained at this level until the seventh hour, at which time they were again 20. The skin was flushed throughout the period of the atropine effect. He was somewhat restless from the second hour on, but this is not remarkable and is commonly found in patients receiving this type of treatment, especially during the first treatment. There was no excitement noticed, and after the second hour he slept continuously with some outbursts of restlessness. Alcohol sponges were given in the third hour because of a rise of temperature to touch. When the temperature became normal, these were discontinued. During the entire course of treatment the patient was considered to be reacting in the usual manner. No anxiety was felt for his condition. Pulse, respiration, and blood pressure, as noted above, were not particularly remarkable.

Because of a tragic break in nursing technique the patient's temperature was not checked after it had re-

turned to normal following the alcohol sponges, and it was not until the ninth hour that it was observed that he was hyperpyrexic and not responding like the other patients. The room temperature at this time was well above normal and two other patients receiving therapy that day also developed temperature elevations. Respiration ceased at 5:00 p.m., nine hours after the administration of the drug, despite intracardiac adrenalin and liberal ice-water sponges. Temperature at the time of death was beyond the limit of the clinical thermometer. All efforts at resuscitation failed. The other hyperpyrexic patients responded satisfactorily to alcohol sponges. The temperature of one rose to 106 degrees and the other to 107 degrees. It was felt by the physician that the cause of death was hyperpyrexia and respiratory failure due to atropine toxicity. A complete autopsy report follows.

Autopsy Findings.—(Gross report): The body was that of a short, well nourished individual of pyknic build, in whom rigor mortis was present. There was marked cyanosis of the upper part of the chest, neck and head with some evidence of bleeding about the nose and mouth. There were no marks of external violence and no evidence of external gross deformity.

(Internal Examination) The skull: There were no abnormalities of the scalp, skull or dura, and the brain grossly appeared normal except for some evidence of atrophy in the occipital lobes. The vessels at the base were somewhat thickened, but there was no prominent atherosclerosis. Cut sections of the brain revealed hyperemia and edema, particularly marked in the cerebellum, in the white matter around the basal ganglia, and in the midbrain. No areas of focal pathology were seen.

The Thorax: The organs of the thorax were found in their normal position. The lungs were boggy, edematous, and on cut section exuded a dark, bloodstained fluid. Sections of the lungs floated in water, and there was no evidence of consolidation or focal pathology. Mediastinal lymph nodes were somewhat swollen, but otherwise normal. The heart showed marked thinning of the right ventricle, and to some extent, the left ventricle. Coronary circulation appeared to be patent, although there were early sclerotic changes seen in the coronary vessels. In the aorta there was a plaque measuring about 1.5 cm. in diameter over the ostia of the left coronary artery, and several other early atherosclerotic plaques. Small yellowish infiltrations were seen also in the endothelial lining of the ventricles, and there was some congestion of the valves.

The Abdomen: The panniculus was thick, but the abdominal organs were all found in their normal positions. The liver was pale, large, and there were several areas of yellowish tissue penetrating the surface to a distance of about 3 or 4 cm. over the anterior surface of the liver. In addition, there was a nutmeg appearance, but no focal pathology. The spleen was somewhat large, soft and mushy, but showed no focal pathology. The kidneys showed chronic passive congestion with increased marking of the cortex and considerable increase in the amount of fat, but no focal pathology. The stomach was hyperemic and contained many undigested raisins, but otherwise was not remarkable. No abnormalities were seen in the genitourinary tract or gastrointestinal tract, and the adrenal glands appeared to have undergone postmortem autolysis.

From the gross findings the cause of death was not determined.

Histologic Report.—Sections of the brain (stained by the hematoxylin-eosin method) showed, to a remarkable degree, the multiplication of large bacteria in the vessels of the liver, kidneys and lungs. While it is possible that these could represent overwhelming bacteremia antemortem, lack of any reaction around the organism, their large size, and their limitation to the blood vessels, themselves, suggested a postmortem growth. Unfortunately, the presence of these organisms with the consequent autolysis of tissues made the reading of the slides remarkably unreliable. Certain findings, however, were valid. These consisted of a large atherosclerotic plaque in the aorta described grossly, remarkable thickening of the media in the vessels of the kidney, with concomitant cloudy swelling or autolysis, while the liver showed fatty infiltration (to some degree), as well as autolysis. The lungs showed recent and old hemorrhage, together with considerable lymphocytic exudate, which, however, had reached the state of consolidation. Changes in the brain were most marked in the region of the hypothalamus, where fairly advanced calcification was seen in the walls of practically all of the vessels. In addition to this, there were early degenerative changes in many of the neurones, some of them being pigmented and vacuolated, and there was an apparent decrease in the total number. A large colloid cyst was seen in the pituitary. The adrenals also showed vacuolization of the cortical layer.

All of these findings must be interpreted with extreme caution, in view of the postmortem contamination of the body. The lung hemorrhages, normally a possible cause of death, can be discounted if much artificial respiration was used either before or after death. The degree of atherosclerosis present was impressive, but may have been only a contributing factor. No specific evidence of atropine poisoning was seen.

Discussion

This death occurred very early in the investigation of atropine as a coma-producing drug in the treatment of psychotic reactions. A great deal has been learned since that time, and as a result of modification of technique, such hyperthemias as reported in this paper no longer occur. A combination of decrease in sweating and hyperactivity is closely related to hyperpyrexia due to atropine. We have found sodium amytal (grains 3¾) administered intramuscularly to be most effective in controlling the hyperactivity and consequently, the pyrexia. The room temperature also has an obvious relationship to a pyrexic re-

sponse. Since we have installed a dehumidifying unit, pyrexic responses are unusual. In our experience, immediate and active measures with ice-water sponges have always been effective, and the temperature promptly returns to normal. We no longer use alcohol for sponging purposes, since the inhalation of the fumes tends to be a depressant. Since the detoxification of atropine takes place in the liver, it is our opinion that atropine coma therapy should be used with caution in patients having evidence of liver damage.

Summary

Death due to the administration of 32 mg. of atropine sulfate is reported. Because of bacterial contamination, no definite statements can be made regarding the pathologic picture of atropine poisoning. The degree of atherosclerosis present in this patient was impressive, and may have been a contributing factor. An allergic response to the drug should be considered as a possibility, but other allergic responses have never been observed in atropine coma therapy to date. Improvements and modifications in techniques have made possible the administration of massive doses of atropine sulfate with a degree of safety which exceeds that when insulin is used as the coma-producing agent. The death reported herein, after careful evaluation, seems to have been due to a set of circumstances each one of which played a role: high room temperature and humidity, impaired detoxification of the drug due to liver damage, failure to maintain normal temperature through alcohol sponges or ice-water sponges, and a break in nursing technique.

Addendum

Results of research, determined after the submission of this paper for publication, demonstrate that atropine coma may be completely terminated at any time after its onset by the administration of 4.0 mg. physostigmine intramuscularly. Details will be published in a forthcoming paper.

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41001 Seven Mile Road

EFFECT OF SYMPATHECTOMY ON MUSCLE CIRCULATION

(Continued from Page 995)

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Routine Endotracheal Anesthesia for Tonsillectomy and Adenoidectomy

By Jordan C. Ringenberg, M.D.
Edward C. Thompson, M.D.
Grand Rapids, Michigan

ENDOTRACHEAL anesthesia for adults undergoing tonsillectomy has been an accepted procedure for several years. Its routine use in children has been encouraged in some of the larger medical centers, but the majority of tonsillectomies and adenoidectomies are performed without the benefit of endotracheal anesthesia.

Opposition to the use of endotracheal anesthesia on the part of the surgeon has largely been based on a fear of trauma to the larynx of the child, with the possible development of edema necessitating tracheotomy, or the late development of laryngeal granulomas from contact irritation from the endotracheal tube. Many surgeons also are opposed to the use of an endotracheal tube, as they feel it interferes with their technical manipulations during the tonsillectomy.

Anesthesia for tonsillectomy without the use of the endotracheal tube may be hazardous. The danger of respiratory obstruction, anoxia and cerebral damage, or cardiac arrest and death is always present. It is not uncommon to see degrees of respiratory obstruction and cyanosis during tonsillectomy using the "ether hook," which would not be tolerated during any other form of modern anesthesia and surgery. The respiratory obstruction is due to the presence in the child's pharynx of a thick tongue, blood, mucus, surgical instruments, and constant suction tending to lighten the anesthesia and leading to reflex laryngospasm. To give effective artificial respiration or to assist the child's respiratory excursion while this chain of events is going on is impossible. The anesthesiologist can only insufflate oxygen into the open mouth and be prepared to establish an effective airway by means of an endotracheal tube if the situation becomes more critical.

With the elective use of an endotracheal tube its advantages become apparent at once. Hasty surgery is no longer necessary because of the deteriorating condition of the patient. In its place there is calm careful surgery with adequate and sure hemostasis. The patient's airway and oxygenation are assured, and, if necessary, controlled respiration can easily be carried out. An even depth of anesthesia in light planes is easily maintained, and the suction may be used at will without fear of lightening the anesthesia. Exposure for the operator is improved because now the tongue may be retracted as necessary without fear of producing respiratory obstruction.

Endotracheal anesthesia has been used routinely for tonsillectomy and adenoidectomy at St. Mary's Hospital, Grand Rapids, Michigan, during 1956 and 1957. A total of 1,151 cases have been done using this method of anesthesia. Their age range is as follows:

Age	*Number of Cases*
2	42
3	124
4	217
5	251
6	175
7	120
8	78
9	64
10	36
11	26
12	18
Total	1,151

Our technique emphasizes the following points:

1. Preoperative medication includes both morphine and scopolamine. The morphine is given in very small doses to help allay apprehension, while relatively large doses of scopolamine are given to decrease mucus production to a minimum.

2. Induction of anesthesia is by open drop with Vinamar, with gradual addition of ether until surgical anesthesia, upper plane III is reached.

3. Intubation is done by direct laryngoscopy with the patient sufficiently deep in anesthesia to obtund the laryngeal reflex. Gentleness during the exposure of the glottis is stressed. Endotracheal tubes are of the thin-wall Portex type. If any resistance is encountered to insertion of the tube the next smaller size is chosen at once. The tube

is advanced into the trachea for approximately one inch. The tubes are cut short to prevent further advance than this, and to minimize the possibility of entering the right main bronchus.

4. Maintenance of anesthesia is by ether oxy-

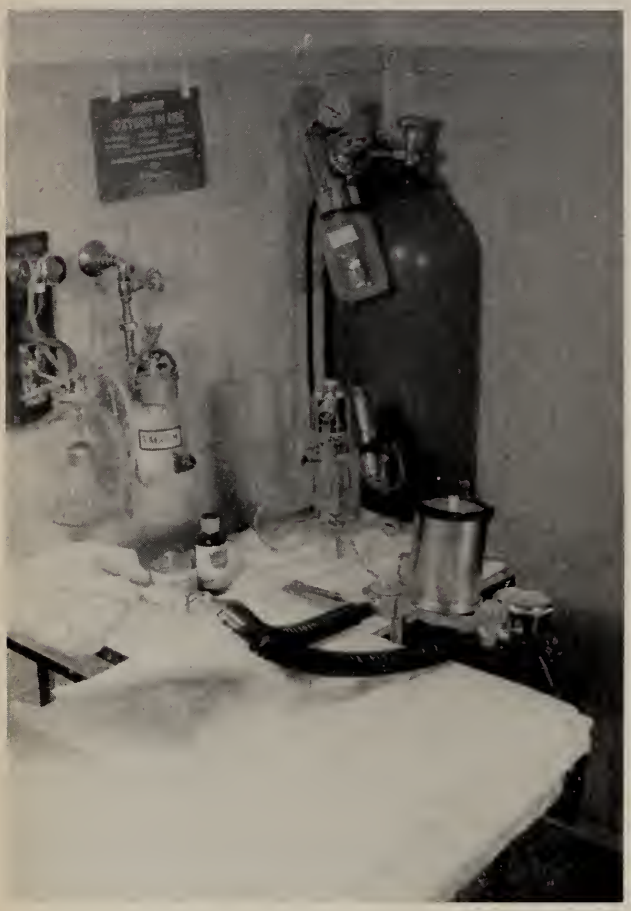


Fig. 1. Anesthetic equipment for maintenance of ether-oxygen endotracheal anesthesia for tonsillectomy.

gen, using a carbon-dioxide absorption, circle breathing machine especially designed for pediatric use (Fig. 1).

5. The entire operation is done in 10° Trendelenberg position to prevent aspiration of blood and mucus around the tube.

6. At the termination of the operation the child is placed on his side still in Trendelenberg position, and intermittent gentle suction applied to the tube during withdrawal.

7. If there is any evidence of persistant laryngospasm following extubation oxygen is given by mask or catheter.

8. Following surgery, patients are removed to the recovery room where they receive oxygen by oral insufflation until they have reacted fully. Recovery room carts are in 10° Trendelenberg position during this period.

There have been no serious complications in this series of 1,151 cases, and only four instances of hoarseness, all of which cleared within twelve hours. Tracheitis and bronchitis have not been seen, nor has laryngeal edema necessitating tracheotomy.

Laryngeal granuloma has not been found in these cases during the post-operative period.

Summary

The inherent dangers of respiratory obstruction during tonsillectomy has been emphasized. The advantages of endotracheal anesthesia during this procedure have been presented. A group of 1,151 consecutive tonsillectomies under endotracheal anesthesia without serious complications or late sequelae is reported.*

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522 Medical Arts Bldg.
Grand Rapids 2

*Since this article was written 800 additional operations have been performed without laryngeal complications.

Lay Medicine during the Early Middle Ages

By Benjamin Lee Gordon, M.D.
Ventnor, N. J.

APART FROM a small number of Byzantine lay physicians, few lay doctors are mentioned in the history of the early Middle Ages. That such physicians existed can be inferred from the famous schools that existed during the fourth and fifth centuries in the East at Alexandria, Constantinople, Berytus, Caesarea, Laodicea, Pergamos, Antioch, and Athens, and in the West at Rome (Athenaeum), Ravenna, Marseilles, Autun, Bordeaux, Treves, Toulouse, Poitiers, Lyons, Narbonne, Arles, Vienna, and Besancon. These schools were mostly under direction of pagan teachers, and their curriculum included philosophy, medicine, law, literature, grammar, and astrology.

The physicians of pagan origin who were educated in these schools could not have suddenly passed off the face of the earth and turned their profession abruptly into the hands of the monks. As a matter of fact, Italy at no time entirely lacked lay practitioners of good repute who gave private instructions to students in medicine. It is related that, in the second half of the sixth century, Alexander of Tralles practiced in Rome and, as it was the practice in those days for physicians to train aspirants for the profession, he most likely taught the art of medicine to disciples there. It is further reported that Pope Gregory invited the Archbishop of Ravenna, Marianus, to Rome in order to undergo medical treatment for a malady of the chest. This further bears out the supposition that, in the midst of the ruins of the past, glowing embers of the old Greek tradition never became completely extinguished, but continued to glow under the ashes and were from time to time—even with Church opposition—fanned into fresh flame.

As has been intimated, it would be a mistake to conclude that the preponderance of clericism and monasticism brought about the complete disappearance of the lay practitioner. A survey of the entire period emphasizes the fact that the decay of medicine, and culture in general, did not keep pace with the decline of Roman dominion. Rome continued her individual existence and many schools of learning kept their doors open although their brilliance faded. In the East, we read of the Nestorians of the Bactishua family, of the School of Translators and of others.

In Italy, there were some lay schools kept open in defiance of the Church. These schools were attended not simply by youths desiring to obtain an education, but also by grown men. The subjects taught were grammar, rhetoric, philosophy, jurisprudence, and medicine. The teachers were appointed by the municipal council and enjoyed certain privileges, such as, exemption from the duty of quartering soldiers and from other public burdens. Many students went to Italy for their general education, and some went to Constantinople, the capital of the Eastern Empire, where a few secular schools were still in existence. Generally speaking, physicians of pagan origin who practiced medicine outside of the Church were not respected, as their background was poor and their training only superficial. They had no formal school education.

Lay physicians were largely employed to give expert testimony in legal matters dealing with gynecology, such as, when the virginity of a litigant had to be established. Such cases, naturally, could not be openly handled by the clergy. Expert testimony, in cases of bodily injury and poisoning, also was given by lay physicians.

There existed hospitals under lay administration at Lyons in 542, and at Merida in 580. Besides the hospital physician, there was also the physician-in-ordinary with the title of "Archiater" who performed definite functions. Lay physicians were employed as personal physicians at the palaces of the rulers and even to care for the Popes.

Under Theodoric the Great (454-526), Italy, which in the fifth century had undergone such severe trials, passed through a period of peace and enjoyed material prosperity. The most jealous consideration was given for Roman tradition in the administration of government and the promotion of art and science. In the latter respect, it suffices to mention the names of Cassiodorus,

Boethius and Ennodius (474-521). Theodoric, one of the noblest rulers who ever held sway over Italy, wished to be a protector of the Romans rather than a conqueror, and it is for this reason that he left them in possession of their laws and institutions. He established liberal laws and institutions for both the Romans and the Goths, and these people lived in proximity following their respective native customs without any marked antagonism.

Theodoric was the first king in Europe to recognize different nations living within their own clearly-marked boundaries as equals. He was not only a patron of the arts and sciences but it is known that his own talented daughter, Amalaswintha, spoke Greek with the Greeks and Latin with the Romans. She saw to it that her son, Atalaric, was instructed in the Roman arts. The Goths possessed a comparatively high development of language, and many of them evinced inclination toward scientific studies.

King Theodoric formulated wise regulations governing the practice of physicians (*archiatri*). His concern for medicine and his noble advice to the *archiatri* are well expressed in the famous "Eulogy and Counsel of Theodoric":

The Eulogy and Counsel of Theodoric

Among the most useful arts that contribute to sustain frail humanity, none may be regarded as superior—or even equal—to medicine, which aids the sick with its maternal benevolence, puts our pains to flight, and gives us that which riches and honour are unable to give. . . . Leave aside, O men of the medical arts, those controversies that are prejudicial to the sick; and if you are not able to come to an agreement consult someone whom you can question without dislike, for every wise man is willing to seek counsel and he is regarded as the most zealous whose frequent questions prove that he is most wise. At the very beginning of your career in this art you are consecrated by oaths like those of the priests: you promise solemnly to your instructors to hate iniquity and love honesty. . . . Remember that to sin against the health of a person constitutes homicide. When I honour you with the title of *Comes Archiatrorum* so that you will be esteemed among the masters of the art of healing and everyone will ask your opinion, I warn you to demonstrate that you are a just arbiter in this notable art. . . . To the expert archiater may the pulse reveal our internal disorders, may the urine reveal them to his eyes. Enter freely into our palace, with full confidence, and may it be permitted to you to prescribe diets, to say things that one would not dare to hear said, and to prescribe even painful treatment in the interest of our health.[1]

The era of the Ostrogoths has bequeathed to us at least one work possessing a trace of originality—"The Dietetics of Anthimus." Anthimus (5th century) was a Greek physician and the last lay author who flourished before medicine passed over into the hands of the clergy. Anthimus was expelled from Byzantium and he journeyed to Italy with Theodoric the Great where he lived for a while as an emissary of the Ostrogoths to the court of the Frankish King Theodoric. His work on dietetics is mainly based on ancient works although he includes his personal experience as a practitioner among the Goths. It is written in the form of an epistle.

He asserts in the introduction that rational dietetics is the foundation of health and the primary factor in preventing disease. He advises moderation in eating and drinking and states that personal preparation of food should not be neglected even on journeys. He states that food should be easily digestible.

Anthimus lists one hundred different articles of food and drink which are digestible and nourishing and discusses the preparation of each. He points out the nutritional value of each of the individual parts of the ox and swine. He warns against the use of pickled meat, bacon-rind and pigeons, "because they feed on helebore," and he also cautions against the use of hard boiled eggs, old cheese, most mushrooms, old fish and oysters.

Anthimus, oddly enough, believes in the therapeutic efficacy of bacon in treating intestinal parasites and of partridge flesh and rice cooked in goat's milk in combating dysentery. He employs barley-meal porridge diluted with tepid water in treating fever and almond or fig emulsion in cases of catarrh and angina.[2]

Other lay physicians were the *archiater* Peter, who was court physician to a later Frankish king named Theodoric (about 605), and the *archiater* Reovalis (about 590). The latter mentions that he was called in to see a small boy who had a disease of his thigh; the little patient's case had been given up as hopeless. He writes: "I, having made an incision into the testicles [strangulated inguinal hernia?], as I had once seen done in the city of Constantinople, restored the boy sound to his sorrowing mother." This narrative indicates the existence at this time of a higher class of lay physician who possessed some surgical knowledge and skill. This was doubly important at a time when surgery was forbidden to monkish physicians.

Among the Alemanni,† lay physicians were employed for medico-legal duties. In the Germanic codes, mention is made of the fee to be granted the physician in the determination of the penalty for bodily injuries. The Langobard Code, promulgated in the year 650, contains this stipulation: "Whosoever has inflicted wounds upon anyone, he shall supply him with attendance and likewise pay the fee of the physicians, at a rate to be estimated by learned men."

Among the Visigoths, the lay physician, having undertaken the treatment of a case, was obliged to conclude an agreement concerning proper remuneration and also to post security for malpractice. For the cure of various diseases there were distinct fees; for example, a fee of 5 *solidi* was charged for a cataract extraction. If the patient died but the physician had performed his duties satisfactorily, the physician received no fee but he could withdraw without hindrance. If the physician committed any technical error, he had to pay a fine. If, however, the death of the patient was brought about by the treatment of the physician, the physician was subject to fine or worse. If the patient were a servant, the physician had to provide another servant of similar value; if, on the other hand, he were a freeman, the physician laid himself open to arbitrary punishment from the relatives. The physician could only perform venesection on free women in the presence of a relative—even if the procedure were deemed urgent. Any infraction of this regulation led to a fine of 10 *solidi*.

Such stringent enactments naturally hindered medical action—particularly reputable medical action—for none but itinerant quacks could hope to escape criminal prosecution.

What ecclesiastic domination failed to accomplish in the process of disintegration of medical practice was completed in the sixth century by famine, by savage wars that raged between the Ostrogoths and the Byzantines, and, most of all, by the pestilences which followed in the wake of the wars. This terrible devastation which continued to the eighth century strangulated all pursuit of science and undermined all confidence in lay medicine. In the face of the epidemics, the lay physicians became helpless and the people abandoned themselves entirely to faith. To be sure, the clerical physicians could not avert an epidemic or cure those who were stricken by it, but their methods were harmless and appealed to the religious sense, and the patient at least was inspired by the hope of entering a new and brighter existence in the hereafter.

On the other hand, the lay physician at that period had nothing to inspire confidence. His chief methods of diagnosis were based on uroscopy and palpation of the various pulses, and even if he reached some conclusion as to the disease, his treatment was revolting and cruel and not devoid of superstition. To attempt to catalogue all remedies and cures that have passed the alimentary tract of man throughout the ages is to undertake to compile a work of human folly. In the name of the healing art man has resorted to wild nostrums, loathsome and nauseating excreta of cats, dogs, goats and even bats and mice, and disgusting remedies such as snakes, toads, lizards and mice.

Hanging the victim by the feet or gouging out one of his eyes so that the poison might run out were regarded as proper methods of curing poisoned patients. The last is said to afford the explanation as to how Emperor Albrecht lost one of his eyes. Even so eminent a naturalist as Conrad von Megenberg, as late as the year 1342, went from Vienna to Regensburg to the grave of St. Erhard for the sole purpose of creeping over his grave while a hymn of his own composition was sung.

The time of taking the various abominable mixtures prescribed by the physician was often determined by the position of the sun, moon and stars. At times the relative wealth of the patient guided the practitioner in compounding his prescription.

In addition to the lay doctors, there were old wives, eccentric individuals, shepherds, minstrels, jugglers, executitioners, and similar gentry who dabbled in medical practice.

Said Oliver Wendell Holmes (1809-1904): There is nothing men will not do; there is nothing they have not done to recover their health and save their lives. They have submitted to be half-drowned in water, and half-choked with gases, to be buried up to their chins in earth, to be scarred with hot irons like galley slaves, to be crimped with knives like codfish, to have needles thrust into their flesh, and bonfires kindled on their skins, to swallow all sorts of abominations, and to pay for all this, as if to be singed and scalded were a costly privilege, as if blistering were a blessing and leeches a luxury.

†The Alemanni were an ancient people of southwestern Germany.

In the seventh century, the embryonic lay-physician studied in the traditional manner under the tutelage of an older physician.

All physicians were subject to certain rules and regulations. The "Fuero Judzgo," a Spanish translation of the original code of the Visigoths entitled "Forum Judicium,"* reads as follows:

1. No physician may undertake to bleed a woman in the absence of her relatives; if he has done so, he shall pay 10 *solidi*** to the relatives or to the husband, since it is not impossible that occasionally some advantage may be associated with such an opportunity.

In all Germanic legal codes (Salic, Ripuarian, Bavarian) carnal offenses were very severely punished. Whoever touched the hand, arm or breast of a maiden was fined 15, 30 or 35 *solidi,* in the order mentioned. A manservant who impregnated a maid of another, who died during pregnancy or labor, was castrated. Hence, it follows that this unchristian operation was still in vogue and was performed as a punitive measure. Castration was likewise performed from motives of pure revenge, as the case of Abelard (who was castrated by the friends of Heloise in consequence of his love for her) proves. The same vengeance too was commonly taken among the southern Slavs, Arabs, Abyssinians, Negroes, Turks, and Indians.

2. No physician shall visit any person confined in prison without the presence of the jailer, lest the prisoner, through fear of his punishment, may seek the means of death at his hands.

3. When anyone has called a physician to see a sick person, or to heal a wound, the physician, when he has seen the wound or recognized the pains, shall at once take charge of the patient under definite security.

4. When a physician has assumed charge of a patient under security, he must cure him. If death ensues, he shall not demand the stipulated fee, nor shall a suit be instituted by either party.

Some physicians, however, in serious cases, guarded themselves from prosecution by having the patients declared legally dead in advance of treatment, so that if death actually ensued it could not be ascribed to their treatment.

5. If a physician has removed a cataract from the eye and restored the patient to his former health, he shall receive a fee of five *solidi.*

6. If a physician injures a nobleman in bleeding him, he shall pay 150 *solidi.* If, however, the patient dies, the physician [how equitable!] shall be delivered up at once to his relatives, to be dealt with as they may see fit. When, however, the physician has killed or injured a slave, he must return a slave of the same kind.

7. When a physician has accepted a student, he shall receive a fee of twelve *solidi.*

8. No one shall cast a physician into prison without a hearing, except in case of murder.[3]

It should be noted that there was a distinction made between a visit to the sick, and a visit for treating a wound. In Sweden† the educated physician was expected to understand not only illness, but also treatment of fractures, incised wounds, wounds of the skin, stabs through the body and amputations. The unerudite lay physician was regarded as a mere mechanic and tradesman.

It does not follow, however, from the ordinances cited, that the physicians of the Visigoths were necessarily regarded with special disrespect. These ordinances, like all similar laws from the beginning of time to the present day, were instituted chiefly to provide against transgressions and to meet exceptional cases.

In spite of the fact that lay physicians were considered members of the so-called lower class, their high remuneration and severe penalties indicate their relatively high social position.

Toward the midpoint of the Middle Ages, monkish or clerical medicine had about entirely superseded all higher lay practice, and for all practical purposes only herniotomists, lithotomists, oculists and lower medical itinerants survived. The position of the lay physician at this time, particularly, was considered disreputable as may be inferred from the action of King Gram, who, in order to remain unrecognized during a festival, put on the dress of a physician and took the lowest seat at the dining table.

The so-called *volksarzte* of the Germans were probably the uninterrupted successors of the lower itinerant physicians. The higher class lay physicians, who still existed among the Goths in the beginning of the Middle Ages, disappeared, or at least took a position of inferiority until the foundation of the school at Salerno and the European universities.

Anthimus (fifth century), to whom we have hitherto referred, is the last lay author of the West for a period of 400 years. Following him

*This translation was made by order of Ferdinand III, in 1241, and formed the basis of Spanish medieval law.

**Two *solidi* was the price of an ox. Hence this fee for a private venesection is very high.

†Laws of Sudermania; compiled 1327.

the conduct of literary affairs remained in the hands of the clergy and monks.

It is related that Cassidorus, "the last Roman," amidst the chaotic confusion erupting in the West, undertook the responsibility of preserving the heritage of literature through monkish influence, without, however, taking measures to combat the superstition which flourished so universally in his unenlightened era.

Cassiodorus recommended the study of medicine to the monks, giving them detailed advice as to which writers of antiquity should be studied as a foundation for learning the healing art. Addressing the monks, he declared:

> Learn to know the properties of herbs and the blending of drugs, but set all your hopes upon the Lord, who preserves life without end. If the language of the Greeks is unknown to you, you have the herb-book of Dioscorides, who has described and depicted the herbs of the field with astonishing accuracy. Afterwards read Hippocrates and Galen in Latin translation especially the Therapeutics of the latter, which he has dedicated to the philosopher Glaucon, and the work of an unknown author, which, as would appear from investigation, is compiled from several writers. Study further the Medicine of Aurelius Caelius, the Hippocratic book upon herbs and healing methods, as well as a variety of other treatises upon the healing art which I have brought together in my library and have bequeathed to you.

He stressed that the healing art was a worthy calling in that it concerns both the present and future well being of patients and aids them when other . . . spiritual . . . means fail. He warned physicians to avoid quarrels, jealousy, all forms of wickedness, and all methods of disreputable therapy. He exhorted physicians ever to seek knowledge, to read the works of the Ancients, to manifest zeal and cheerfulness in treating the sick, and to seek purity in their personal lives. For an effective bedside manner, the following advice was given:

> Let your visits bring healing to the sick, new strength to the weak, certain hope to the weary. Leave it to clumsy (practitioners) to ask the patients they are visiting whether the pain has ceased and if they have slept well. Let the patient ask you about his ailment and hear from you the truth about it. Use the surest possible informants. To a skillful physician palpation of the pulsing of the veins reveals the patient's ailment while the appearance of the urine indicates the prognosis. To make things easier, do not tell the clamoring inquirer what these symptoms signify.[4]

The seeds of Cassiodorus did not fall on barren soil. The works or translations recommended by him are still in part extant in numerous manuscripts.

One of the most liberal monarchs, Emperor Charlemagne (742-814), King of the Francs, was a patron of the classics. He organized schools at every cathedral modelled after the schools of the Egyptian temples and Arabian mosques, and from the year 806 onward, it was expected that medicine should be included in the curriculum. These institutions were important not only in the development of general education but also in the revitalization of medical knowledge. Such schools were developed in Paris, Fulda, Wurzburg, Herschaw, Metz, Lyons, Cremona, Para and Florence. The personal physicians of Charlemagne were Wintraw and a Jew named Abul Faradsh; the latter must not be confused with the Arabian historian of the same name who is also known as Bar-Hebraeus (1226-1286).

To the curriculum of the Cathedral Schools which originally embraced the seven sciences (the trivium: grammar, logic and rhetoric; plus the quadrivium: arithmetic, music, geometry and astronomy), he ordered that medicine should also be taught under the name of *physic.*

In England, King Alfred (849-901) is known not only as a warrier but also as a proponent of higher education. He is, without question, one of the greatest men England has ever produced. Under his sovereignty, good laws were enacted and his was a golden age of peace and happiness for his subjects. He always stood ready to improve the lot of his subjects. He founded schools for rich and poor in England. One of his schools was founded in the city of Oxford (*not* the famous university of the same name).

Like Charlemagne, Alfred, in his educational work, received assistance from monk scholars. He was also aided by the learned Jews who came to live at his court by invitation. He divided his time wisely between study, prayer and business of state. His great tolerance is shown by a letter to his son in which he says:

> For God's love my son and for the advantage of thy soul, let they (the slaves) be masters of their freedom and their own will; and in the name of the living God I entreat that no man disturb them; that they shall be as free as their thoughts to serve what Lord they please.[5]

Monks and clerical physicians appear to have filled the gaps which existed from the time the lay educational institutions declined until the universities made their appearance. They particularly

undertook the state care of the poor, which formerly had been performed by the *archiatri popularis* or municipal physicians.

By the close of the sixth century, most secular schools had disappeared and had been replaced by cathedral or monastic schools. In England, monastic schools were founded at Iona (565), at Oxford, at Cambridge (c. 670), at Whitby (675) and at Jarrow (678), and later at York, Winchester and Canterbury. In Ireland monastic schools were introduced by St. Patrick (c. 440). Among the famous European schools were those of Fulda, Herschau, Prum, St. Gall, Chartris, Tours, Weisenburg and Reichenau. It is not known whether medicine was included in the curriculum at any of these schools.

Clerical physicians belonged to the lower as well as the higher clergy. The Church at times declared the professional success of the lower clergy to be miracles and cannonized the parties concerned. In case of the death of one of these clerical physicians—indeed with other physicians, too— it was customary to place manuscripts of the writings of Galen, Hippocrates, etc., in his coffin. In later years (1131, 1162, 1212), the ranks of the higher clergy often produced well educated physicians, such as, John of St. Amand (c. 1200), Peter of Spain (died 1277) and Simon de Cordo (died 1330). When the practice of medicine was forbidden to the clergy, the decrees of councils were often ignored—even with regard to surgical operations which were strictly forbidden.

Various clerical physicians enjoyed Church benefits in return for which they were expected to instruct pupils gratis and to treat the sick without charge—a consideration, however, that was not always carried out. Hence Emperor Sigismund in 1406 enforced these regulations and declared: "The high Magistri in Physica treat no one gratuitously, and hence they are going to hell." Clerical physicians, in many cities, gave free advice on appointed days, chiefly in the vestibules of the churches where the sick were brought. That some of the priests did not perform their duties very zealously is evidenced by the decree of the Council of Vienna.[6]

The earliest hint of clerical participation in surgery is found in the alleged performance of a Caesarean section by Bishop Paul of Merida. It is related that Bishop Masona built a large hospital at Merida in 580. According to Neuburger, it is extremely probable that in this institution the influence of the Nestorians' skill in medicine made itself felt.

Following the conversion of the Aryan Visigoths to Catholicism (586), monastical and ecclesiastical instruction received a considerable impetus. We may assume definitely that institutions and monasteries were provided with several physicians. From the ecclesiastical schools came Isidorus Hispalensis (Bishop Isidore of Seville 570-636), one of the most educated men of the Middle Ages.[7]

It will be recalled that the Church had prohibited the monks from exercising their activities beyond the walls of the monasteries. The practice of medicine beyond the cloister introduced an element of commercialism in the priests' lives and kept them away from their religious duties. Frequently monks were called away to distant places to give medical attention to dignitaries of the Church and princes of state. Monks engaged in medical procedure traveled about more and more and returned to the monastery only for important holy days. Some of the ecclesiastical healers actually forgot their traditional opposition to the shedding of blood and engaged in surgery, and some even substituted drugs for prayer. Such practices finally culminated in the promulgation by the Council of Rheims which prohibited monks and ecclesiastics from practicing medicine outside their orders altogether; after the year 1219, no member of a religious order was permitted to go outside of the monastery to practice medicine.

Ecclesiastic medicine began to decline in the tenth century due to a number of factors, chief of which was the fact that the people lost faith in the monks on account of the behavior of some of their number. While monks generally observed the "Benedictine Rule" with regard to virtue, humility, obedience and hospitality and engaged in manual labor and intellectual work, there were some whose capacity for evil counterbalanced their desire to do good. Exempt from all civic authorities, some monks took advantage of their privileged status and became unruly. At times the monasteries became actual hotbeds of insubordination to the state and even to the Church. Part of this temptation to evil arose out of Church celibacy. On rare occasions, the conduct of certain monks actually occasioned public scandals.

Another great influence which led to the decline of monkish medicine was the rising belief in the medical efficacy of the invocation of saints

and relics. Every country had its saints and each saint had control over a certain disease or diseased organ. The healing power of saints was frequently exercised through relics in the shrines consecrated to them. These forms of healing were very costly and patients had to travel long distances and pay large sums for the privilege of employing them.

The Crusades, especially, brought an extended field of activity in the lay medical field. Innumerable hospitals were founded as a result of these military expeditions, and lay physicians ran these institutions. The great Hohenstaufer, Frederick II, enlightened by the wisdom of the Orient, was active in the promotion of education and especially in the elevation of the position of physicians. By his high regard for medical studies and educational institutions, he became a benefactor of mankind—especially in Italy. Through his medical ordinance, published in 1224, which paid no heed to the triple ban of Pope Gregory IX (1227-1241), he secured for himself an honorable place in the history of medical culture.

Roger, King of Sicily and grandfather of Frederick II, had already published an ordinance providing that the physician, before entering practice, must present himself to the civil magistrates and procure their permission, "in order that my subjects may not incur danger through the inexperience of the physicians." For violation of this ordinance the penalty of imprisonment and confiscation of all wordly goods was established. His grandson, Frederick II, enlarged upon the important regulations of Roger's ordinance and came up with the following:

Code of Physicians and Surgeons

A. To practice in all branches of medicine (and surgery also), and to bear the title of physician, is permitted only to him who has passed an examination at Salerno, and received the state-license from the Emperor or his viceroy. Violators of the law are to be punished by fines of money and goods, and receive one year's imprisonment.

B. Before a physician is admitted to an examination, he must have attended lectures in logic for 3 years, and in medicine and surgery for 5 years, and must have practiced under the direction of an experienced physician for one year.

C. Physicians are to be examined on the books of Hippocrates, Galen, and Avicenna.

D. To be approved, the surgeon is to bring evidence that he has attended the lectures of professors, and pursued for one year the curriculum which surgeons hold necessary, including a satisfactory course in human anatomy. Surgeons of the first class are to be examined by three professors, of whom one teacher of surgery is to conduct the examination in the Latin language, and in the presence of recognized authorities of the nation of the candidate. The diploma is to be signed by all these persons, accompanied by the attestation of a notary, and must bear the seal of the Faculty. Surgeons of the second class are to be examined in Italian and by two teachers only, and the diploma is then to be subscribed by the two examiners alone. Surgical candidates must take an oath never to treat internal disease, and they might never receive the title of doctor.

E. The physician must swear to give information of such fact if an apothecary sells adulterated drugs.

F. The physician must not be guilty of collusion with the apothecary as regards the price of drugs; still less might he keep a drug-store.

Fees of the Physician, According to the Code

A. The poor must be treated without charge.

B. The physician must visit his patients at least twice each day, and, if requested, once also at night. For this he receives for each day's treatment:

(1) In the city, or at his residence, half a *tarenus*.
(2) Away from his residence, when:
The patient paid his traveling expenses, 3 *tareni*
The doctor paid his traveling expenses, 4 *tareni*

Of Apothecaries, Druggists and Their Tariff

A. The druggists (confectionari) must compound and keep their drugs properly and in the prescribed method, which fact must be certified by physicians, and even confirmed by an oath. Contravention of this regulation is punished by seizure of goods and even by death.

B. The apothecaries (stationarii) must keep all regular drugs and simples for no longer than one year from the day of purchase; they can charge 3 *tareni* per ounce; for medicines requiring aging for more than one year, they are permitted to charge 6 *tareni* per ounce.

Apothecary-shops could be kept only at places designated throughout the kingdom.[6]

Theodoric's famous *Chirurgia* was originally published in the year 1267. Divided into four parts, this work deals with wounds, dislocations, fractures and hemorrhage. He suggests control of venous bleeding by pressure and arterial bleeding by ligature above and below the point of severance of the artery. He treats skull fracture by elevation and removal of the loose pieces. His handling of lacerations, with stitching and dry dressings left unchanged for four or five days, is suggestive of modern surgery.*

(Continued on Page 1034)

*Refer to fine English translation of the first two parts of Theodoric's Chirurgia by Eldridge Campbell and James Colton published in 1955 by Appleton and Company, New York.

National Shelter Policy

Federal Civil Defense Administrator Leo A. Hoegh has announced the Administration's national policy on shelters which is of vital concern to every doctor, every nurse and every hospital attendant. This policy is a significant progressive step in casualty care; namely, the prevention of the occurrence of casualties from radioactive fallout which would endanger millions of persons if nuclear attacks were unleashed against our homeland. Here are excerpts from Governor Hoegh's statement of May 7:

"The Administration has conducted exhaustive studies and tests—with respect to protective measures to safeguard our citizens against the effects of nuclear weapons. These several analyses have indicated that there is a great potential for the saving of life by fallout shelters. In the event of nuclear attack on this country, fallout shelters offer the best single nonmilitary defense measure for the protection of the greatest number of our people. . . .

"The Administration's national civil defense policy, which now includes planning for the movement of people from target areas if time permits, will now also include the use of shelters to provide protection from radioactive fallout.

"To implement this established policy, the Administration will undertake the following action:

1. The Administration will bring to every American all of the facts as to the possible effects of nuclear attack, and inform him of the steps which he and his State and local governments can take to minimize such effects.

 The present civil defense programs for information and education will therefore be substantially expanded in order to acquaint the people with the fallout hazard and how to effectively overcome it. The public education program will include information on:

 (a) Nuclear weapons effects on people, plants and animals;

 (b) The provision of effective fallout protection, how to construct a fallout shelter and how to improvise effective shelter;

(c) Necessary measures for the protection of food and water;

(d) How to carry out radiological decontamination; and

(e) What governments—Federal, State and local—are themselves doing about fallout protection."

Surveys will be made of existing structures and facilities capable of providing fallout shelter, particularly in larger cities.

Research will be conducted to show how fallout shelters may be incorporated in existing, as well as in new buildings—whether in homes, other private buildings, or governmental structures. The Administration will construct a limited number of prototype shelters of various kinds, suitable to different geographical and climatic areas, which would have practical peacetime uses. Some of the prototype structures will be incorporated in new hospitals and in additions to existing hospitals.

As the FCDA Administrator points out, Federal example is an indispensable element to stimulate state, local government, and private investment for fallout shelters. He frankly explains:

"There will be no massive federally-financed shelter construction program, because of the many unsolved and complicated problems which still are under intensive study."

"Common prudence" he argues, "requires that the Federal government take steps to assist each American to prepare himself—as he would through insurance—against any disaster to meet a possible—although unwanted—eventuality. The national shelter policy is founded upon this principle. This approach will provide the stimulation necessary for the American people to make preparations for fallout protection."

Geo. W. Slagle.

President, Michigan State Medical Society

President's Message



Editorial

"EXPERIENCE vs. COMMUNITY RATING" TO BE SIFTED

The Health Information Foundation of New York City announced on May 9, 1958 that it will finance a $36,000, eighteen-month study of "experience rating" in voluntary health insurance—the setting of charges or premiums according to varying use of services by different groups.

The grant for the study was approved by the Executive Committee of the Foundation which represents 200 drug, pharmaceutical, chemical and allied companies that sponsor the Health Information Foundation.

The object of the study is to investigate the differences between the bases for setting premiums and comparing their relative advantages for the public, the nonprofit plan, the insurance companies and the providers of health services; particularly important considering that 123,000,000 Americans are now protected with some form of health insurance and the number is increasing daily.

* * *

This item is of extreme importance to the Blue Shield program. The insurance companies are anxious to sell for the least possible premium rate and gladly accept the experience rating which eliminates those groups where there is uncommonly large usage. They can then sell to special groups where on account of favorable age, experience, exposure and other items, medical calls are fewer and the premiums can be made smaller.

The basic theory back of the establishment of Blue Shield plans always has been to make it possible for all persons to receive the benefit on an average, or community rating. In fact that concept allowed the program to start in the first place. If groups are to be specially selected, the older people and the handicapped—the ones who actually need the most care—will be unable to buy their insurance at all because the prices will automatically have increased. Michigan has never used the experience rating but always used the community rating, as do most other Blue Shield programs. We shall be interested in what this study shows. We cannot afford or allow these changes unless the profession wishes to abandon the very cases which first stimulated the program.

MONTHS OF DECISION

In the June issue of The Journal there was presented a very complete and comprehensive report of the work of Michigan Medical Service, involving over a year's intensive study; a survey of desires and wishes of the public; of our subscribers and of the doctors. A completely new concept and expression of the contract is being offered for subscription. A few of our members and some organized groups have protested that they were being asked to subscribe for a program which they had not themselves studied in detail.

This has been a year of tremendous decisions. After months of study by the Michigan Medical Service Board of Directors, by The MSMS Council, and by the various committees and study groups, the House of Delegates in April, 1957, authorized a complete rejuvenation of our whole medical care program. A stupendous work has been done. There has been an opinion study; conferences of committees with our members, including representatives of labor who represent half of our subscribers, and with official fee study committees, leading to the final contract and approval of the State Insurance Commissioner.

Meanwhile every committee or every group which wished was given a hearing by our hard-working committees in order to make as perfect as possible the offering and the contract. No final details could be published until the Insurance Commissioner had approved. Our State Society officers, the very busy Councillors, the President, President-elect, Executive officers, as well as administrative and directing officers of Michigan Medical Service, have visited every Councillor District in the state in recent months, answering any and all questions, explaining items and details as they developed. A most sincere effort has been made to reach every available member, to answer his questions, to allay his fears and to assure him that the program of the Michigan State Medical Society is a far step forward in medical history.

April was a month of decision. The Michigan State Medical Society House of Delegates on April 27, 1957, decided on a program, established a set of principles, and got to work. In April, 1958, the National Blue Shield Conference indicated a universal belief in and acceptance of a more extensive offering of medical service to the public. The Michigan program, then in development, was well received.

May was a month of decision. In Michigan and quite generally over the land, the contracts between labor and management were to be reviewed. Industrial conditions in the nation and in Michigan especially, have been in a series of declines covering several months, with an unusually high number of laboring people out of work. Contracts of practically all of the motor industries and their kindred groups are expiring the last days of the month and the first few days of June. Whether the profession wishes it or not, its services to the laboring groups and to the other groups were on the bargaining table. The Michigan State Medical Society believes it is now offering to management, and to labor as well as to its own members, a service which will adequately supply these needs. Its offering was finally approved by the State Insurance Commissioner on May 20, 1958.

June was a month of decision. The details of the Michigan program have been presented by mailing a copy of contracts and provisions to every member of the Society. Now every doctor in Michigan, representatives of labor and management, our subscribers in general, and especially our members must make the final decision. The American Medical Association June meeting has been held in San Francisco. Also an anniversary of the National Health Conference occurred in Washington. June is a very special month of decision.

* * *

How many of our members remember these names: Josephine Roche, George Baehr, M.D., Dean A. Clark, M.D., Wilber Cohen? Do they mean anything to you? Go back twenty years and you will find these names and others very much in evidence while the medical profession was desperately fighting "organized effort within and without the government" to establish "compulsory health insurance" for all the people. The American Labor Health Association held a meeting on June 16-17, this being a twentieth anniversary of the National Health Conference of 1938 which was presided over by Josephine Roche, at that time assistant secretary in charge of the United States Public Health Service. She will again be chairman. The gentlemen mentioned were all expecting to be present, and probably will still advocate "compulsory health insurance." Josephine Roche is now director of the UMWA's Welfare and Retirement Fund. George Baehr was the founder of New York's HIP. Dr. Dean A. Clark is president of the Group Health Federation. Dr. Wilber J. Cohen is professor of social work at the University of Michigan. He was the subject of a University of Michigan news release on December 10, 1957, in which he stated:

> "Total medical care and expenditures have quadrupled during the past twenty-five years. Per capita expenditures have tripled while the proportion of the total spent from public funds has more than doubled. Five per cent of our national income now goes for medical purposes. Total medical expenditures average about $100 per year for every man, woman and child in the nation. The total medical bill is over 17 billions for the whole country with a growing and aging population and a demand for more and better medical services. The expenditures will continue to increase. It will not be many years at the present rate until medical expenditures exceed 25 billions annually."

The American Medical Association has again taken a united stand against certain provisions of the Forand Bill and others which would further extend the numbers of persons now already receiving their health services through the federal government.

What the outcome of the AMA meeting and the National Health Conference will be, may possibly be suggested by further quotation of Professor Cohen:

> "Twenty-five years ago, the use of the insurance method was a controversial issue in medical care. This is no longer true; today the medical profession and the public wholeheartedly accept the insurance principle. Every effort is being made to extend it on a voluntary basis and to expand it to cover a larger proportion of people and a larger proportion of medical costs. Nevertheless a substantial proportion of low income persons at high cost services are still excluded from insurance coverage. It is doubtful that voluntary arrangements can or should cover these persons completely."

Congress has recognized the cost of providing medical care to 6 million recipients of public assistance as a national responsibility. The Social Security amendments of 1956 increased federal

financial aid for this group and to continue Professor Cohen's quote:

". . . an important piece of legislation which I trust congress will enact in 1958 is the proposal of the federal government to contribute to a comprehensive health insurance program for federal employes and their families. By this means, the federal government as an employer can assure that their own employes and their families will receive more adequate medical service. The federal government should set a standard for the guidance of voluntary plans and the individual states."

What of the Future?

Decisions have been made in Michigan. The Michigan State Medical Society and Michigan Medical Service have made the best offering possible to develop. The American Medical Association has made its decisions in San Francisco. The labor leaders, labor and management, have made and are making their bargaining programs. The pressure groups which have revised and rekindled the national health conference have made their decisions. If our medical profession will work as a unit—one profession with one objective—to serve our people adequately and as economically as possible, we have no fear of the future. Medical practice in European countries has fallen by the wayside because their leadership has been poor, their loyalty to the professional ideal inadequate, and their steadfastness of purpose faltering. The next few months will again be months of decision —our decision. Will our program work? It must.

SOME HISTORIC FACTS

One of the very pleasant and rewarding tasks of an editor is to record history in the making. This is especially true in medicine and Michigan has been making history for many years. Some committees have been working on the socio-economic feature of the practice of medicine involving the duty of a doctor not only to give medical service to his patients but to find methods by which the patients, and especially the lower income groups, shall be able to pay a reasonable measure of the medical bills.

These committees, changing membership, working in various places, finally became stymied by the legal implications and in the late 1930's turned to the MSMS Council for certain definite help in the nature of legal, actuarial and economic advice and use of insurance consultants to work out the "mutual health program" which had been evolved. This included enabling acts of the legislature and the establishment of Michigan Medical Service. The final work was a combination of a committee headed by Dr. Ralph H. Pino of Detroit, and The Council—resulting in recommendations to the House of Delegates with final adoption.

Michigan Medical Service was set up legally as a corporation of the state under its laws and enabling act, its membership consisting of members of the House of Delegates plus the elected directors. The Board of Directors, the majority of whom must always be doctors of medicine, is selected by the MSMS House of Delegates to represent the public, the medical profession and the Michigan Hospital Association. Legally, Michigan Medical Service is a corporation whose members have certain duties including the election of directors who must operate the corporation. Actually, it is also an integral part of the Michigan State Medical Society, having exactly the same function fundamentally as The Council, having the same membership body and being elected in the same way for specific terms of service. This situation must be remembered for a complete understanding.

Committees were established to draft a fair and reasonable fee schedule program and to construct a service contract to be offered to the public. The first such contract anticipated complete coverage so far as possible, to include home, office and hospital services with certain exemptions. But the first contract actually sold was to satisfy an acute need. The Ford Motor Company had available 40 cents per employe a month and asked what we could do for their workers. Michigan Medical Service believed that, considering the participation of our members and the guarantee to accept what fees we could pay for services to this group, that surgery in the hospital could be offered. The first month saw about 67,000 subscribers. That group of subscribers started the program, and from that number the group increased rapidly.

Next, Michigan Medical Service contracted with the State Highway Department for a complete coverage program which had been devised and which was to cover employes and their families. That program was in operation approximately two years but because of inadequate rates and especially of inadequate coverage—lost money (approximately $120,000) — was discontinued. Meantime, the surgical program had proven pop-

ular. After insufficient rates were finally adjusted, and Jay C. Ketchum had been hired as executive vice president, Michigan Medical Service was a success. It soon paid off the prorating indebtedness and a half million deficit.

THE YEAR'S ACCOMPLISHMENT

The years of growth in Michigan and of kindred plans throughout the nation passed rapidly. Over the years some of our Board members, some of our actuarial advisors and administrators, and many of the members had suggested that the program should be increased and liberalized. About three years ago that belief took active form. Committees representing The Council, the House of Delegates, Michigan Medical Service, and the Wayne County Medical Society finally stimulated the action of calling a special session of the House of Delegates. This movement was helped along by the Governor's Study Committee and the increasing demands of labor for more coverage.

The MSMS survey was taken, including direct questions and mailed questionnaires to the members of the Michigan State Medical Society. Active work of not only the survey committee, but of the committee representing the House of Delegates headed by C. I. Owen, M.D., of Detroit, and the committee representing the State Medical Society Council, of which George W. Slagle, M.D., of Battle Creek, was chairman, was begun. The reports finally presented to the House of Delegates and the action taken by the House, authorized and promised definite increased service to subscribers, increased fees to doctors, and a completely new concept of medical service.

The eight months from September, 1957, to May, 1958, saw the creation not only of a new service contract but a new method of economic administration, patient participation, and the adoption of a relative value fee schedule. Every member of the House, every county officer, every member of the Society, knew what was being done. The Secretary sent requests to each county society and to each special society, urging that they send in suggested fee schedules and their requests for hearing if needed, so that the new payment rates could be established, the contracts for Medicare be made, and the renewal of the Veterans Administration Home Town Medical Care Contract be consummated under the new fee schedule, with a deadline of March 1, 1958. These schedules of subscriber rates to be paid the relative value schedule and the precise and exact wording of the contract, all were involved in the enormous task done during these last few months and release of information all depended upon the acceptance by the Insurance Commissioner. *That completes that historic item.*

FEE SCHEDULES

The relative value fee schedule is a new name for a very old problem. As long ago as memory, medical groups, county medical societies, and others have established fee schedules. Some were secret, some open and above board, but about the time the federal antitrust law was arranged, the profession was given to understand there might be restraint of trade and the medical society rather frowned upon such schedules. However, the prepaid movement for medical care and the demand from the governmental agencies, the bureaucrats, certain doctors and certain labor organizations for a compulsory medical care program compelled the establishing of fee schedules.

The Michigan State Medical Society and Michigan Medical Service published a "Minimum Fee Schedule For Governmental Agencies" in 1947, establishing and readjusting schedules of the amounts Michigan Medical Service hoped it could pay members for specified, limited services which were rendered under Blue Shield.

About 1933 and 1934, the Calhoun County Medical Society adopted what they called a "unit fee schedule"—rating each service as near as they could to the relative importance, the relative responsibility, relative difficulty, relative risk, and the attempt not to reduce any already established rates. This was scheduled on a 100 per cent basis. Plans had been made to put into effect the "mutual health program" with that rating on July 1, 1934. The Society found difficulty in satisfying everyone, and being compelled to give up the whole program, because of infringing Michigan's insurance laws, surrendered that material to the Michigan State Medical Society executive office.

Later, working with Dr. Pino's committee, The Council formulated Michigan Medical Service, abandoned the unit rates and set up a payment program supposed to be adequate for the low income group they expected to insure, listing the amount which was hoped could be paid.

Accusation was made that the State Medical Society was setting up a uniform fee schedule. This was not true. The Society was setting up a schedule which they considered adequate under certain restricted terms of low income and for very restricted services. The growth of prepaid medical insurance idea and its general adoption by 42 million Blue Shield subscribers plus another 70 or 80 million general insurance groups, have made a schedule of fees an absolute necessity.

Michigan has not established a set fee schedule. Michigan has adapted California's relative value fee schedule with approximately 16,000 items, 492 of which were distributed May 20, with the interpolation of these relative values into money values for the three income rate contracts. These rates are published of necessity to govern payments, they are not compulsory. They are what is considered adequate pay for these particular services in these particular income groups and are what Michigan Medical Service is prepared to pay for services to its subscribers. This has nothing to do with the rates any individual doctor may charge his patient, but they are the rates payable to participating doctors.

Every single one of these items is set up for the average case. If any case or any service is unusual, takes extraordinary skill, exceptional time, or unusual hazard, the doctor has a perfect right to request individual consideration. Committees are being set up in the various Councillor districts with authority to pass upon such requests, to investigate and to make the decision.

A United Profession

This program outlined, and this very advanced step in medical economics history is the work of a united Michigan State Medical Society. Participation slips have been mailed to each member and to each doctor. In order to sell this service, our subscribers have a right to know and the Insurance Commissioner demands that sufficient numbers will administer the program as liberalized, so that no one may fail to receive services. It is hoped participation will be widely accepted. If sufficient numbers do accept and our new policy is subscribed to, there is every reason to believe that the movement for the government to take over the medical program, will again be staved off. The united action of our profession with cohesion and full trust, would avoid what has happened in so many other nations.

THE "BLUE SHIELD IDEA"

"I believe that the whole structure of voluntary health insurance is dependent upon Blue Shield. By that I mean that Blue Cross will not survive without Blue Shield, nor will the commercial insurance industry, especially the major medical part of it. Only a compulsory, regimented system can supplant this whole voluntary system, and the keynote to its survival is the Blue Shield idea". . . .

These words are quoted from a recent address by Dr. Donald Stubbs, of Washington, who currently serves as president of the District of Columbia's Blue Shield Plan and as chairman of the board of the national association of Blue Shield Medical Care Plans.

What is the "Blue Shield idea?" And why is this idea the keynote to the survival of our voluntary health insurance program in America?

First of all, the Blue Shield idea exemplifies medicine's *responsible service to the community.* It represents our profession's greatest and most successful effort to break the money barrier between patients of limited income and the professional services—of unpredictable amounts and incalculable costs—that we stand ready to provide them. It represents the one prepayment plan that seeks to protect, first of all, the least profitable "risks"—those people who can least afford our services and who, generally, most frequently need them.

Second, the Blue Shield idea is the idea of providing *dependable benefit to the patient.* Blue Shield Plan pays their "participating physicians" directly for services rendered Blue Shield member-patients. In most areas, these "participating physicians," through their agreements with their local Plans, have given assurance to their patients in the lower and moderate income groups that their Blue Shield membership will meet the full cost of services covered by their contracts. Even where Blue Shield payments are accepted by doctors on an "indemnity" basis, the Plans are constantly seeking to equate their payments to the normal fees of the local physicians—so that Blue Shield may offer the patient of limited means a reliable assurance that the Plan's payments will meet the actual costs of covered services.

Third, the Blue Shield idea is the idea of *preserving the private, confidential relationship* between doctor and patient. No "third party"

(Continued on Page 1029)

1958 Guest Speakers



David Adlersberg, M.D.



J. A. Bargen, M.D.



H. L. Bockus, M.D.



C. T. Beecham, M.D.



Willis E. Brown, M.D.



V. P. Collins, M.D.



John M. Craig, M.D.



O. S. Culp, M.D.



Helen O. Curth, M.D.



Windsor Davies, M.D.



A. J. Elliot, M.D.



O. Spurgeon English, M.D.



Harold F. Falls, M.D.



Stuart M. Finch, M.D.



A. B. French, M.D.



Harry Gold, M.D.



Perrin H. Long, M.D.



R. H. Marshak, M.D.



Waldo E. Nelson, M.D.



Hermann K. Pinkus, M.D.



Robert J. Priest, M.D.



R. A. Reis, M.D.



L. L. Robbins, M.D.



D. J. Sandweiss, M.D.



John W. Severinghaus, M.D.



Thomas L. Shipman, M.D.



J. R. Simpson, M.D.



James L. Wilson, M.D

Michigan State Medical Society

Past Presidents, 1866-1956

1866—*C. M. Stockwell, Port Huron
1867—*J. H. Jerome, Saginaw
1868—*Wm. H. DeCamp, Grand Rapids
1869—*Richard Inglis, Detroit
1870—*I. H. Bartholomew, Lansing
1871—*H. O. Hitchock, Kalamazoo
1872—*Alonzo B. Palmer, Ann Arbor
1873—*E. W. Jenk, Detroit
1874—*R. C. Kedzie, Lansing
1875—*Wm. Brodie, Detroit
1876—*Abram Sager, Ann Arbor
1877—*Foster Pratt, Kalamazoo
1878—*Ed. Cox, Battle Creek
1879—*George K. Johnson, Grand Rapids
1880—*J. R. Thomas, Bay City
1881—*J. H. Jerome, Saginaw
1882—*Geo. W. Topping, DeWitt
1883—*A. F. Whelan, Hillsdale
1884—*Donald Maclean, Detroit
1885—*E. P. Christian, Wyandotte
1886—*Charles Shepard, Grand Rapids
1887—*T. A. McGraw, Detroit
1888—*S. S. French, Battle Creek
1889—*G. E. Frothingham, Detroit
1890—*L. W. Bliss, Saginaw
1891—*George E. Ranney, Lansing
1892—*Charles J. Lundy, Detroit
(Died before taking office)
*Gilbert V. Chamberlain, Flint
(Acting President)
1893—*Eugene Boise, Grand Rapids
1894—*Henry O. Walker, Detroit
1895—*Victor C. Vaughan, Ann Arbor
1896—*Hugh McColl, Lapeer
1897—*Joseph B. Griswold, Grand Rapids
1898—*Ernest L. Shurly, Detroit
1899—*A. W. Alvord, Battle Creek
1900—*P. D. Patterson, Charlotte
1901—*Leartus Connor, Detroit
1902—*A. E. Bulson, Jackson
1903—*Wm. F. Breakey, Ann Arbor
1904—*B. D. Harison, Sault Ste. Marie
1905—*David Inglis, Detroit
1906—*Charles B. Stockwell, Port Huron
1907—*Hermon Ostrander, Kalamazoo
1908—*A. F. Lawbaugh, Calumet
1909—*J. H. Carstens, Detroit
1910—*C. B. Burr, Flint
1911—*D. Emmett Welsh, Grand Rapids
1912—*Wm. H. Sawyer, Hillsdale
1913—*Guy L. Kiefer, Detroit
1914—*Reuben Peterson, Ann Arbor
1915—*A. W. Hornbogen, Marquette
1916—*Andrew P. Biddle, Detroit
1917—*Andrew P. Biddle, Detroit
1918—*Arthur M. Hume, Owosso
1919—*Charles H. Baker, Bay City
1920—*Angus McLean, Detroit
1921—*Wm. J. Kay, Lapeer
1922—*W. T. Dodge, Big Rapids
1923—*Guy L. Connor, Detroit
1924—*C. C. Clancy, Port Huron
1925—*Cyrenus G. Darling, Ann Arbor
1926—*J. B. Jackson, Kalamazoo
1927—*Herbert E. Randall, Flint
1928— Louis J. Hirschman, Detroit
1929—*J. D. Brook, Grandville
1930—*Ray C. Stone, Battle Creek
1931—*Carl F. Moll, Flint
1932— J. Milton Robb, Detroit
1933—*George LeFevre, Muskegon
1934—*R. R. Smith, Grand Rapids
1935— Grover C. Penberthy, Detroit
1936—*Henry E. Perry, Newberry
1937— Henry Cook, Flint
1938—*Henry A. Luce, Detroit
1939— Burton R. Corbus, Grand Rapids
1940— Paul R. Urmston, Bay City
1941— Henry R. Carstens, Detroit
1942— H. H. Cummings, Ann Arbor
1943—*C. R. Keynort, Grayling
1944—*A. S. Brunk, Detroit
1945—*V. M. Moore, Grand Rapids
(Died before taking office)
1945—*R. S. Morrish, Flint
1946— Wm. A. Hyland, Grand Rapids
1947—*P. L. Ledwidge, Detroit
1948— E. F. Sladek, Traverse City
1949— Wilfrid Haughey, Battle Creek
(President-for-a-Day, Sept. 21, 1949)
1949—*W. E. Barstow, St. Louis
1950— C. E. Umphrey, Detroit
1951— Otto O. Beck, Birmingham
1952— R. L. Novy, Detroit
(President-for-a-Day, Sept. 22, 1952)
1952— R. J. Hubbell, Kalamazoo
1953— L. W. Hull, Detroit
1954— L. Fernald Foster, Bay City
(President-for-a-Day, Sept. 28, 1954)
1954—*R. H. Baker, Pontiac
1955— W. S. Jones, Menominee
1956— Arch Walls, Detroit

*Deceased.

Michigan State Medical Society

The Ninety-third Annual Session

SHERATON-CADILLAC HOTEL, DETROIT

September 28-October 3, 1958

ANNUAL SESSION INFORMATION

DIRECTORY

Headquarters—Sheraton-Cadillac Hotel, Detroit

Registration—for House of Delegates: Sheraton-Cadillac Hotel, Detroit, Grand Ballroom Foyer (Fourth Floor) Sunday, September 28, 6:00 p.m.

House of Delegates—Sunday, Monday-Tuesday, September 28-29-30, Fourth Floor Sheraton Cadillac Hotel

Press Room—Suite 500, Sheraton-Cadillac Hotel

Woman's Auxiliary Headquarters—Fort Shelby Hotel, Detroit

Michigan State Medical Assistants Society Headquarters Statler Hotel, Detroit

• **REGISTER**—Fifth Floor, Sheraton-Cadillac Hotel—soon as you arrive.

Hours:

Tuesday, September 30—12:00 noon to 5:15 p.m.
Wednesday, October 1—8:00 a.m. to 5:15 p.m.
Thursday, October 2—8:00 a.m. to 5:15 p.m.
Friday, October 3—8:00 a.m. to 1:30 p.m.

• **NO REGISTRATION FEE FOR MEMBERS OF MSMS AND OTHER STATE MEDICAL ASSOCIATIONS, AMA AND CANADIAN MEDICAL ASSOCIATION.**
Admission will be by badge only to all Scientific Assemblies, Section Meetings, and the Exhibition. Please present your MSMS or other State Medical Association, AMA, or CMA Membership card to expedite your registration. We wish to save your time.

• **MICHIGAN DOCTORS OF MEDICINE,** in practice but who are not members of MSMS, if listed in the American Medical Directory, may register as guests upon payment of $25.00. This amount will be credited to them as dues in the Michigan State Medical Society. **FOR THE BALANCE OF 1958 ONLY,** provided they subsequently are accepted as members by the County Medical Society in whose jurisdiction they practice.

• C. I. Owen, M.D., of Detroit is General Chairman of the 1958 MSMS Annual Session.

• **TELEPHONE SERVICE**—Special lines to handle local and long distance telephone service for registrants at the MSMS meeting will be installed on the Fourth Floor near the Grand Ballroom, Sheraton-Cadillac Hotel. Call WOodward 1-8000.

• **GUEST ESSAYISTS** are very respectfully requested not to change time of their lecture with another speaker without the approval of the Assembly Chairman. This request is made in order to avoid confusion and disappointment on the part of members of the audience.

• **CHECK ROOM**—Fifth Floor, Sheraton-Cadillac Hotel near elevators.

• **DINNER DANCE**—Officers' Night—Wednesday, October 1, 1958. Reception at 7:00 p.m., Boulevard Lounge, and Dinner at 8:00 p.m. in Book Casino, both on lobby floor of Sheraton-Cadillac Hotel, Detroit. All registrants and their ladies are cordially invited (dress optional).

• **POSTGRADUATE CREDITS ARE GIVEN TO EVERY MSMS** member who attends the Annual Session.

• **TRANSPORTATION**—The C & O Streamliners afford a convenient means of transportation to the MSMS Annual Session in Detroit for hundreds of physicians located in the central and western parts of the State.

SECTION MEETINGS

TUESDAY, SEPTEMBER 30

Obstetrics-Gynecology
Pediatrics

WEDNESDAY, OCTOBER 1

Anesthesiology
Dermatology-Syphilology
Surgery
Urology

THURSDAY, OCTOBER 2

Gastroenterology-Proctology
General Practice
Nervous and Mental Diseases
Occupational Medicine
Ophthalmology
Otolaryngology
Public Health and Preventive Medicine

FRIDAY, OCTOBER 3

Medicine
Pathology

MICHIGAN MEDICAL SERVICE MEMBERS' MEETING

Blue Cross-Blue Shield Building
441 East Jefferson Ave., Detroit

Tuesday, September 29, 1958

(Coincident with MSMS Annual Session)

11:45, 12:00, 12:15, buses will leave Sheraton-Cadillac Hotel.
12 Noon-12:30 p.m.—"See Your Plan in Action"
12:30 p.m.—Preprandial—Private Dining Room, Fifth Floor
1:00 p.m.—Lunch
2:00 p.m.—Meeting of Corporation—Auditorium

All MSMS Delegates are members of Michigan Medical Service Corporation and are expected to attend the MMS Luncheon and Annual Meeting. The MMS Annual Meeting is open to ALL members of the medical profession who are cordially invited to attend.

• **PARKING**—Do not park on Detroit's streets. Inside parking at a convenient distance from the Sheraton-Cadillac Hotel, is available at the DAC Garage, 1754 Randolph, the Grand Circus Garage, 1776 Randolph, and the Book Tower Garage, 333 State Street.

• **CABARET-STYLE DANCE AND FLOOR SHOW,** with the compliments of the Michigan State Medical Society, will be held in the Grand Ballroom of the Sheraton-Cadillac Hotel at 9:30 p.m., Thursday, October 2. All who register, and their ladies, are cordially invited to attend.

• **THE SCIENTIFIC PRESS RELATIONS COMMITTEE** is composed of: H. F. Dibble, M.D., Detroit, Chairman; A. B. Gwinn, M.D., Hastings; J. J. Lightbody, M.D., Detroit; C. Allen Payne, M.D., Grand Rapids; A. E. Schiller, M.D., Detroit; C. L. Weston, M.D., Owosso.

• **THE HOUSE OF DELEGATES PRESS RELATIONS COMMITTEE** is composed of: J. J. Lightbody, M.D., Detroit, Chairman; L. Fernald Foster, M.D., Detroit; K. H. Johnson, M.D., Lansing; Max Lichter, M.D., Melvindale; C. Allen Payne, M.D., Grand Rapids.

• **THE MSMS HOUSE OF DELEGATES** convenes Sunday, September 28, at 8:00 p.m. Grand Ballroom, Sheraton-Cadillac Hotel; it will hold its second and third meetings on Monday, September 29, 9:00 a.m., and at 8:00 p.m.; its fourth and fifth meetings will be on Tuesday, September 30, at 9:00 a.m. and at 8:00 p.m.

QUESTIONS TO PARTICIPANTS ON MALABSORPTION PANEL

Please mail Questions direct to Moderator David J. Sandweiss, M.D., 15201 W. McNichols Road, Detroit 35.

To M.D.

Will you give consideration to the following questions?:

.....M.D.

• **PAPERS WILL BEGIN AND END ON TIME**—Believing there is nothing which makes a scientific meeting more attractive than by-the-clock promptness and regularity, all meetings will open exactly on time, all speakers will be required to begin their papers exactly on time and to close exactly on time in accordance with the schedule in the program. All who attend the meeting, therefore, are requested to assist in attaining this end by noting the schedule carefully and being in attendance accordingly. Any member who arrives five minutes late to hear any particular paper will miss exactly five minutes of that paper!

• **THE TECHNICAL EXHIBITS** will open at 1:00 p.m. on Tuesday and at 9:30 a.m. on Wednesday, Thursday, and Friday; and close at 5:15 p.m., except on Friday when break-up is at 1:30 p.m. Frequent intermissions to view the educational exhibits have been arranged before, during, and after the Assemblies. Bring to the MSMS Convention a "WANT LIST" of your needs and place an order with an MSMS exhibitor.

• **THE HOLDER OF A HOTEL RESERVATION** who fails to show up . . . and fails to cancel his reservation . . . causes gastric hyper-peristalsis, hypersecretion of the hydrochloric acid, and rubus of the gastric mucosa to the hotel manager.

When convention reservations fill a hotel to the capacity, a room not occupied is a loss in $$$ that cannot be reclaimed.

The MSMS Annual Session always means a capacity house in the headquarters hotel.

Be kind to the hotel manager . . . be good to MSMS . . . be generous to your patients . . . be a friend to yourself—by showing up at the Sheraton-Cadillac Hotel, Detroit, for the four days of the MSMS Annual Session, September 30-October 1-2-3.

Order your hotel accommodations—today.

• **HENRY FORD MUSEUM AND GREENFIELD** Village extends a cordial welcome to all MSMS registrants. Three tours are available with chartered coach pick-up at hotel entrance. Special rate for group of 50 and more persons. For information, write Marshall L. Van Meter, Henry Ford Museum, Dearborn, Michigan.

MEETINGS OF SPECIAL SOCIETIES AND ALUMNI GROUPS

TUESDAY, SEPTEMBER 30

MSMS SECTION ON PEDIATRICS AND MICHIGAN BRANCH, AMERICAN ACADEMY OF PEDIATRICS—5;00 to 6:00 p.m. meeting; 6:00 p.m. reception; 7:00 p.m. dinner—all in the Sheraton-Cadillac Hotel.

ALUMNI ASSOCIATION, UNIVERSITY OF MICHIGAN MEDICAL SCHOOL—6:30 p.m. reception and dinner at 7:30 p.m., Sheraton-Cadillac Hotel.

MICHIGAN STATE SOCIETY OF CLINICAL HYPNOSIS (organization meeting), 7:30 p.m.—Sheraton-Cadillac Hotel.

INFORMATION OF PRACTICAL VALUE IN DAILY PRACTICE WILL BE FOUND at the Michigan State Medical Society Annual Session. All subjects on the MSMS Annual Session Program are applicable to clinical medicine. They stress diagnosis and treatment in everyday practice.

WEDNESDAY, OCTOBER 1

MICHIGAN REGIONAL COMMITTEE ON TRAUMA, AMERICAN COLLEGE OF SURGEONS —12:00 M. luncheon followed by scientific meeting at 2:00 p.m.—Panel on "Athletic Injuries"—Sheraton-Cadillac Hotel.

MSMS SECTION ON UROLOGY AND DETROIT BRANCH OF THE AMERICAN UROLOGIC ASSOCIATION—5:00 p.m. meeting in the Sheraton-Cadillac Hotel.

MICHIGAN EPILEPSY CENTER AND ASSOCIATION LUNCHEON MEETING—beginning at 12:30 p.m.—Sheraton-Cadillac Hotel.

THURSDAY, OCTOBER 2

MSMS SECTION ON OTOLARYNGOLOGY AND THE DETROIT OTOLOGICAL SOCIETY—6:30 p.m. reception, 7:30 p.m. dinner, 8:30 p.m. scientific meeting—Sheraton-Cadillac Hotel.

MSMS SECTION ON NERVOUS AND MENTAL DISEASES—5:00 p.m. meeting followed by 6:30 p.m. reception and dinner at 7:30 p.m.—Sheraton-Cadillac Hotel.

MSMS SECTION ON OPHTHALMOLOGY—5:00 p.m. meeting followed by 6:30 p.m. reception and dinner at 7:30 p.m.—Statler Hotel.

ALUMNI ASSOCIATION, WAYNE STATE UNIVERSITY COLLEGE OF MEDICINE—6:45 p.m. reception and dinner—Sheraton-Cadillac Hotel.

MSMS SECTION ON GASTROENTEROLOGY AND PROCTOLOGY, THE MICHIGAN PROCTOLOGIC SOCIETY AND THE MICHIGAN GASTROENTEROLOGY SOCIETY—5:00 p.m. meeting—Statler Hotel.

ALPHA KAPPA KAPPA—8:00 a.m. breakfast-meeting, Sheraton-Cadillac Hotel.

MICHIGAN ACADEMY OF GENERAL PRACTICE BOARD OF DIRECTORS LUNCHEON MEETING at 12:00 noon Sheraton-Cadillac Hotel.

MSMS ADVISORY COMMITTEE OF PAST PRESIDENTS will hold a luncheon meeting in the Sheraton-Cadillac Hotel, beginning at 12:00 noon.

FRIDAY, OCTOBER 3

OTOLARYNGOLOGY - SURGICAL CLINICS — Tympanoplasty surgical clinic at Harper, Memorial and Henry Ford Hospitals on Friday afternoon, October 3, beginning at 1:00 p.m.

Because of the micro-surgical techniques involved, each clinic will be limited to eight guests. Please contact Dr. Harold F. Schuknecht, Secretary, Otolaryngology Section, MSMS, c/o Henry Ford Hospital, Detroit 2, for an assignment indicating your choice of clinic.

NERVOUS AND MENTAL DISEASE CLINICS—"Psychosomatic Problems" will be the subject of an interesting panel at Lafayette Clinic, Detroit, 2:00 to 4:00 p.m. Sponsors of the symposium will be the MSMS Section on Nervous and Mental Diseases in cooperation with Jacques S. Gottlieb, M.D., of the Lafayette Clinic.

O. Spurgeon English, M.D., Philadelphia, will be guest speaker at the Symposium.

MSMS SECTION ON PATHOLOGY AND MICHIGAN PATHOLOGICAL SOCIETY—2:00 to 5:00 p.m. scientific meeting followed by reception and dinner at 6:00 p.m. and a business meeting at 8:00 p.m.—Sheraton-Cadillac Hotel.

MICHIGAN DIABETES ASSOCIATION—one-half day symposium on Diabetes beginning at 2:00 p.m. Reception and dinner at 6:30 Sheraton-Cadillac Hotel.

MICHIGAN CHAPTER AMERICAN COLLEGE OF CHEST PHYSICIANS AND MICHIGAN TRUDEAU SOCIETY. Reception and dinner at 6:30 p.m. followed by scientific session at 8:00 p.m.—Sheraton-Cadillac Hotel.

NEW INFORMATION IN THE EXHIBIT

Many items of interest or education will be found in the large exhibit of 103 technical displays. The Exhibit Section at MSMS Annual Sessions is as important informative and desirable to most doctors of medicine as the scientific papers presented in the Assembly room.

Doctor, stop at every booth—you'll be surprised how much you'll learn! No high-pressure salesman but a courteous well-informed exhibitor will greet you and supply you with some valuable information helpful to your patients.

HOTEL RESERVATIONS
MICHIGAN STATE MEDICAL SOCIETY

93rd Annual Session

Detroit, September 30-October 1-2-3, 1958

The reservation blank below is for your convenience in making your hotel reservations in Detroit. Please send your application to the Committee on Hotels for MSMS Convention, Sheraton-Cadillac Hotel, Detroit, Michigan. Mailing your application now will be of material assistance in securing hotel accommodations.

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant, when convenient.

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Committee on Hotels,
Michigan State Medical Society
c/o Sheraton-Cadillac Hotel
Detroit, Michigan

Please make hotel reservation(s) as indicated below:

_____ Single Room(s) _____persons

_____ Double Room(s) for _____persons

_____ Twin-Bedded Room(s) for _____persons

Arriving September _____ hour_____A.M._____P.M.

Leaving _____hour_____A.M._____P.M.

Hotel of First Choice: _____

Second Choice: _____

Names and addressees of all applicants including persons making reservations:

Name	Address	City	State

Date _____ Signature _____

Address _____ City _____

Michigan State Medical Society

The Ninety-third Annual Session

SHERATON-CADILLAC HOTEL, DETROIT

SEPTEMBER 30-OCTOBER 1-2-3, 1958

Program of Assemblies and Sections

TUESDAY AFTERNOON

September 30, 1958

First Assembly

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: WALTER Z. RUNDLES, M.D., Flint

Secretary: L. S. GRIFFITH, M.D., Grand Rapids

2:00 P.M.

"CHRONIC PELVIC PAIN"

WILLIS E. BROWN, M.D., Little Rock, Arkansas

Professor and Head of Department of Obstetrics and Gynecology, University of Arkansas Medical School

2:30 P.M.

"INFECTIONS IN THE NEWBORN"

WALDO E. NELSON, M.D., Philadelphia, Pennsylvania

Professor of Pediatrics, Temple University Hospital and School of Medicine; Medical Director, St. Christopher's Hospital for Children

Deaths within the first few weeks of postnatal life continue to account for approximately three-fourths of the relatively large number of fatalities of the first year. Furthermore, a number of the deaths in infants beyond one month of age are directly or indirectly related to perinatal factors. Estimates that neonatal deaths may be approaching an irreducible minimum in populations of good socio-economic status and with good medical care are not only premature but fraught with the dangers inherent in a state of smugness.

The lack of careful postmortem examinations is in part responsible for the failure to recognize the extent of the problem of infections in the newborn period.

An attempt will be made to appraise the situation as it is recognized at the moment, to illustrate the importance of approaching the problem on the basis of time of origin (prenatal, natal, postnatal) of the infection as well as of its etiology, and to relate these factors, where possible, to prevention as well as to therapy.

3:00 P.M.

INTERMISSION TO VIEW EXHIBITS

4:00 P.M.

"THE PROBLEM OF SPONTANEOUS ABORTION"

RALPH A. REIS, M.D., Chicago, Illinois

Editor "Obstetrics and Gynecology" and Professor of Obstetrics and Gynecology, Northwestern University Medical School

4:30 P.M.

"THERAPEUTIC CHANGES IN THE TREATMENT OF ENDOMETRIOSIS"

CLAYTON T. BEECHAM, M.D., Philadelphia, Pennsylvania

Clinical Professor of Obstetrics and Gynecology; Chief of Gynecologic Tumor Service, Temple University Medical School and Temple University Medical Center, Philadelphia

Twenty years ago Meigs editorialized his theory of the etiology on which we have been able to build a conservative therapeutic plan. He noted that endometriosis was common in private patients who married late and among whom contraceptive practices were widespread. By contrast, endometriosis was a rarity in ward patients in whom marriage took place earlier and contraceptive practices were practically non-existant. He theorized that the interruption of the rhythmic ovarian and uterine changes in aberrent endometrium by repeated early pregnancies must be beneficial and conversely, that prolonged periodic menstruation, without interruption favored the development of endometriosis.

Following this concept to the fullest has led to most satisfying therapeutic measures, each with a large share of conservative features.

The concept that castration is *necessary* to cure endometriosis is no longer tenable.

5:00 P.M.

END OF FIRST ASSEMBLY

WELL-KNOWN GUEST SPEAKERS

INTERESTING SECTION MEETINGS

OUTSTANDING EXHIBITS

You'll find them all

at the MSMS Annual Session

TUESDAY AFTERNOON

September 30, 1958

Program of Sections

Section on Obstetrics and Gynecology

5:00 to 6:00 P.M.

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: R. W. McCLURE, M.D., Detroit
Secretary: L. S. GRIFFITH, M.D., Grand Rapids

"PLANNED LABOR"

RALPH A. REIS, M.D., Chicago, Illinois

Section on Pediatrics and Michigan Branch, American Academy of Pediatrics

5:00 P.M. (Meeting)

6:30 P.M. (Reception and Dinner)

English Room, Sheraton-Cadillac Hotel

Chairman: A. M. HILL, M.D., Grand Rapids

Secretary: G. E. HAUSE, M.D., Detroit

"PULMONARY POTPOURRI"

WALDO E. NELSON, M.D., Philadelphia, Pennsylvania

The pediatrician must serve not only as a physician for children but also in a consultative capacity to the general practitioner in the solution of his pediatric problems.

From he latter type of experience we have assembled a variety of respiratory disturbances which presented problems in differential diagnosis. These will be illustrated and discussed from the standpoints of diagnosis and management.

HOTEL RESERVATIONS

for the

93rd ANNUAL SESSION

MSMS

should be made

NOW

WEDNESDAY MORNING

October 1, 1958

Second Assembly

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: WILLIAM S. JONES, M.D., Menominee
Secretary: THEODORE I. BOILEAU, M.D., Birmingham

9:00 A.M.

"REASONS FOR FAILURE OF TREATMENT AMONG 1,000 CASES OF CANCER OF THE BREAST"

VINCENT P. COLLINS, M.D., Houston, Texas

Professor and Chairman, Department of Radiology, Baylor University College of Medicine; Radiologist-in-Chief, Jefferson Davis Hospital

Radical mastectomy is the most commonly employed treatment for breast cancer but there are opposing views, strongly presented, as to how results may be improved. The proposal that more radical surgery should be undertaken to include the internal mammary region and the supraclavicular region is the antithesis of the policy of simple mastectomy and greater reliance on radiotherapy. The indications for radiotherapy and its value, in conjunction with radical mastectomy, are not agreed upon. That evidence is found in survival rates to support every view is suggestive of the need for further scrutiny of the behavior of this disease.

The records of approximately 1,000 patients who were referred for radio-thrapy have been reviewed. Two-thirds were operable patients treated primarily by radical mastectomy and one-third had inoperable lesions. These were studied with a view to determining the manner in which treatment failed and whether any other intervention might have altered the outcome. The pattern of recurrences and the manner of death in uncured patients demonstrate the direct effects of treatment and certain aspects of the course of the disease which are independent of the treatment offered. The findings indicate how conflicting observations may be reconciled and suggest the direction of possible improvement in the treatment for breast cancer by present methods.

9:30 A.M.

"PEPTIC ESOPHAGITIS"

J. ARNOLD BARGEN, M.D., Rochester, Minnesota
Chairman of Sections, Mayo Clinic

10:00 A.M.

INTERMISSION TO VIEW EXHIBITS

11:00 A.M.

"ANESTHESIA, ANOXIA, ACIDOSIS AND THE MYOCARDIUM"

JOHN W. SEVERINGHAUS, M.D., San Francisco, Calif.

Assistant Professor of Anesthesia, University of California Medical School

It has recently been shown that the myocardium is depressed far more by anesthetics, anoxia and acidosis than can be recognized by measurements of blood pressure, heart rate, or even cardiac output and venous pressure in normal subjects. This can be shown in dog heart lung preparations or in humans with in-

activated autonomic nervous systems such as may be done deliberately to reduce blood pressure during surgery. It is found that the myocardium is itself depressed in direct proportion to the depth of anesthesia, regardless of the agent. Normally several factors compensate for this depression, these being mediated through autonomic pathways to cause vasoconstriction, increased rate, and direct sympathetic stimulation of the myocardium. A new anesthetic, Fluothane, is of great interest since it does not call forth these autonomic compensations.

11:30 A.M. to 1:00 P.M.

PANEL ON "ULCERATIVE COLITIS AND ILEITIS IN CHILDREN"

Moderator:

JAMES L. WILSON, M.D., Ann Arbor, Michigan

Professor of Pediatrics, University of Michigan; Chairman of Department of Pediatrics and Communicable Diseases, University Hospital

Participants:

Title to be announced

J. ARNOLD BARGEN, M.D., Rochester, Minnesota
Chairman of Sections, Mayo Clinic

"PSYCHIATRIC ASPECTS OF ULCERATIVE COLITIS IN CHILDREN"

STUART M. FINCH, M.D., Ann Arbor, Michigan

Associate Professor of Psychiatry, University of Michigan Medical School, and Director of Children's Psychiatric Hospital.

The psychiatrist considers ulcerative colitis to be a psychophysiologic disorder. The complete evaluation of such a patient and the overall treatment plans should, therefore, include consideration of emotional problems. As is true with many psychophysiologic disorders, patients with ulcerative colitis suffer from deep and severe emotional problems which are often close to psychosis. Such symptomatology is often misunderstood by the nonpsychiatric physician and assumed to be an outgrowth of the disease rather than one of the etiological factors.

Children with ulcerative colitis can be divided into two groups from the standpoint of personality. The most common type is a rigid, compulsive, perfectionistic, highly intellectual youngster who expresses little emotion. The less common type is the manipulative, egocentric, emotionally unstable child who tends to use and abuse his colitis to gain his own ends. The former child usually has more severe bouts of colitis, but is somewhat easier to treat psychiatrically. The latter type of child often shows less dramatic physical symptoms. This child is much more difficult to treat psychiatrically.

The treatment of any child with a psychophysiologic disorder is complicated because it often requires the combined efforts of a psychiatrist and pediatrician. Each must understand the therapeutic techniques of the other.

1:00 P.M.

END OF SECOND ASSEMBLY

MUCH THAT IS NEW
—AND USABLE—
WILL BE FOUND
IN THE
MSMS EXHIBIT

WEDNESDAY AFTERNOON

October 1, 1958

Third Assembly

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: EUGENE A. OSIUS, M.D., Detroit

Secretary: GLEN E. HAUSE, M.D., Detroit

2:00 P.M.

"DERMATOSES AND MALIGNANT INTERNAL TUMORS"

HELEN O. CURTH, M.D., New York City

Assistant Clinical Professor of Dermatology, College of Physicians and Surgeons, Columbia University; Attending Dermatologist, Vanderbilt Clinic; Assistant Attending Dermatologist, Presbyterian Hospital, New York, N. Y.

This paper does not deal with cutaneous metatases of internal tumors but with benign dermatoses associated with malignant internal tumors. Recognition of these associations will help cancer research by providing material for an understanding of the principle by which a tumor has evoked cutaneous changes. It may also guide the physician in his search for a cancer preceded by a dermatosis.

The following cutaneous changes will be discussed:

Pruritus, flushing of skin, urticaria, acquired ichthyosis, pachydermoperiostosis, acanthosis nigricans, dermatomyositis, dermatitis herpetiformis, herpes zoster, erythema multiforme, erythem gyratum repens and cutaneous changes seen in association with intestinal polyposis. The type of internal tumor occurring in the various associations will be described. The genetic, mechanical, hormonal, toxic, allergic and other factors which play a role in the relationship between the tumor and the dermatosis will be discussed.

While disappearance of the dermatosis after removal of the tumor and reappearance of the dermatosis with return of the tumor point to a causal connection between tumor and the dermatosis it would be wrong to assume in every such instance the tumor to be the sole cause of the cutaneous eruption. The catabolic substances of the neoplasm may serve as the trigger mechanism for skin predisposed by genetic, allergic or other factors to various pathologic processes.

2:30 P.M.

"SIGNIFICANCE AND TREATMENT OF PROSTATIC NODULES"

ORMOND S. CULP, M.D., Rochester, Minnesota

Consultant in Urology, Mayo Clinic; Associate Professor of Urology, Mayo Foundation, University of Minnesota

Surgical extirpation continues to be the one hope for "cure" of prostatic cancer. Most of the suitable candidates for radical treatment are found to have an indurated area in the prostate during routine digital examination of the gland. To initiate or deny irreversible definitive therapy solely because of impressions derived from palpation of the prostate is fraught with danger. All nodules of so-called third degree induration are not malignant. Localized granulomatous prostatitis can be indistinguishable clinically from true carcinoma. This benign lesion occurs much more frequently than has been appreciated.

Needle biopsies and those obtained transurethrally have serious limitations and definite contraindications. Open biopsy via the perineum offers the best opportunity for adequate appraisal of prostatic nodules. The combination of frozen section examination and simultaneous prostatectomy of appropriate type has no parallel in other diagnostic or therapeutic schemes. However, several objections have been made to this theoretically ideal one-stage procedure. Personal experiences during the past eight years have been reviewed in an effort to determine the validity of such objections.

Even though total prostatectomy may seem to be the treatment of choice in selected cases, there must be strict adherence to rigid criteria in the choice of candidates or the operation will be abused as it has been in the past.

3:00 P.M.
INTERMISSION TO VIEW EXHIBITS

4:00 P.M.
"TREATMENT OF HEMANGIOMAS AND NEVI"
THEODORE K. LAWLESS, M.D., Chicago, Illinois

4:30 P.M.
"THE INFECTED SURGICAL WOUND"
R. C. HARRISON, M.D., Edmonton, Alberta, Canada

5:00 P.M.
END OF THIRD ASSEMBLY

OFFICERS NIGHT DINNER DANCE

Wednesday, October 1

Sponsored by the

Michigan State Medical Society

and the

Woman's Auxiliary

Boulevard Lounge and Book-Casino

Sheraton-Cadillac Hotel

Limit of 250

WEDNESDAY AFTERNOON

October 1, 1958

Program of Sections

Section on Urology and Detroit Branch, American Urological Association

5:00 to 6:00 P.M.
Sheraton Room, Sheraton-Cadillac Hotel

Chairman: H. V. MORLEY, M.D., Detroit
Secretary: A. W. BOHNE, M.D., Detroit

"POTENTIALITIES OF PARTIAL NEPHRECTOMY"

ORMOND S. CULP, M.D., Rochester, Minnesota

Various amounts of renal cortex have been excised for many reasons. Partial nephrectomy is now a well established procedure that has been employed advantageously in a great variety of situations. Nevertheless it has not attained the degree of popularity that it deserves.

Experiences with partial nephrectomy over an extended period are reviewed. These include both common and unique clinical applications. There is overwhelming evidence that the true potential of this surgical procedure has not been realized. The operation is not devoid of pitfalls and complications but most of the serious sequelae can be avoided by appropriate precautionary measures.

Section on Surgery

5:00 to 6:00 P.M.
Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: H. M. BISHOP, M.D., Saginaw
Secretary: R. F. SALOT, M.D., Mt. Clemens

"PROBLEM OF ARM EDEMA POST MASTECTOMY"

VINCENT P. COLLINS, M.D., Houston, Texas, and R. C. HARRISON, M.D., Edmonton, Alberta, Canada

Followed by fifteen-minute Question and Answer Period

Section on Anesthesiology

5:00 to 6:00 P.M.
Pan American Room, Sheraton-Cadillac Hotel

Chairman: R. B. SWEET, M.D., Ann Arbor

"MONITORING DEVICES IN THE OPERATING ROOM"

JOHN W. SEVERINGHAUS, M.D., San Francisco, Calif.

Miniaturization of electronic equipment now offers great advantages to anesthesiologists for routine use. Transistorized electrocardiograph monitors which can fit in a breast pocket and audibly signal each heart beat, using flashlight sized batteries and only two skin leads are now possible. Pulse monitors strapping to a finger signal the presence of adequate blood pressure, and may replace the stethoscope for pressure measurement. Even the electroencephalograph and recording electrocardiograph have been reduced in size to facilitate routine use, one instrument now being no larger than a portable typewriter case. Ventilators have been designed permitting observation of the actual tidal volume. The increasing simplicity of some of these safety devices strongly argues their introduction into routine anesthesia practice.

Section on Dermatology and Syphilology

5:00 to 6:00 P.M.

Parlors G and H, Sheraton-Cadillac Hotel

Chairman: COLEMAN MOPPER, M.D., Detroit

Secretary: ALICE E. PALMER, M.D., Detroit

"THERAPY OF SKIN CANCER IN THE LIGHT OF NEWER HISTOBIOLOGIC CONCEPTS"

HERMANN K. PINKUS, M.D., Monroe, Michigan

Acting Chairman, Department of Dermatology, Wayne State University College of Medicine

It has been the traditional goal of the dermatologist to treat skin cancer by choosing that method among several available that promises safe cure with the minimum of morbidity and deformity. Standards of treatment have changed over the decades, and in general the trend has been toward higher doses of irradiation and more extensive surgery in order to prevent recurrences. Histopathologic examination has become the accepted guide by which to determine diagnosis, prognosis, and method and dosage of treatment. It therefore appears important to discuss recent changes in histobiologic concepts of various types of cutaneous malignancy which are of practical importance for the clinician. The following topics will be considered: pigmented nevus vs. malignant melanoma vs. juvenile melanoma; basal cell carcinoma and basal-squamous carcinoma vs. adnexal epithelioma; keratoacanthoma vs. low grade squamous cell carcinoma; inflammatory irritation in seborrheic keratosis vs. malignant transformation; and lichen sclerosus et atrophicus vs. leukoplakia in kraurosis vulvae. Rational management of these dermatoses will be outlined on the basis of their histologic structure and biologic behavior.

A "REFRESHER COURSE" OF GREAT VALUE TO PRACTITIONERS—THAT'S THE MSMS ANNUAL SESSION!

* * *

EVERYONE YOU KNOW IS VIEWING THE EXHIBITS—JOIN THEM!

WEDNESDAY EVENING

October 1, 1958

Officers Night

7:00 P.M.

Reception—Boulevard Lounge, Sheraton-Cadillac Hotel

8:00 P.M.

Officers Night Dinner Dance—Book-Casino, Sheraton-Cadillac Hotel

L. FERNALD FOSTER, M.D., *Toastmaster*

1. Announcements and brief report of House of Delegates actions
2. Induction of New Officers
3. President's Annual Address by George W. Slagle, M.D., Battle Creek



MISS ANN LANDERS, Chicago

4. Address of the evening: Miss Ann Landers, Columnist, Chicago Sun Times Syndicate

Speakers like to hear from their audiences. If you especially enjoy certain presentations, write the lecturers and tell them. Obtain addresses from the MSMS Press Room.

THURSDAY MORNING
October 2, 1958

Fourth Assembly

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: James H. Fyvie, M.D., Manistique
Secretary: Hugh B. Robins, M.D., Battle Creek

9:00 A.M.

"PRACTICAL POINTS IN THE CARE OF THE CHILD IN THE FIRST YEAR OF LIFE"

Lloyd E. Harris, M.D., Rochester, Minnesota

9:30 A.M.

"USES AND ABUSE OF TRANQUILIZING DRUGS"

Harry H. Wagenheim, M.D., Philadelphia, Pa.

10:00 A.M.

INTERMISSION TO VIEW EXHIBITS

11:00 A.M.

"PREVENTIVE ASPECTS OF DIABETES"

Hugh L. C. Wilkerson, M.D., Boston, Massachusetts

Chief, Diabetes Field Research, Chronic Disease Program, Public Health Service, Department of Health, Education and Welfare.

11:30 A.M.

Medicine Panel on "MALABSORPTION SYNDROME AND DIARRHEA"

Moderator:

David J. Sandweiss, M.D., Detroit, Michigan

Chief of Section on Gastroenterology and Attending Physician in Medicine, Sinai Hospital; Physician in Internal Medicine, Harper Hospital; Associate Physician in Medicine, Receiving Hospital; Assistant Clinical Professor, Wayne State University College of Medicine.

Participants:

David Adlersberg, M.D., New York City

Associate Attending Physician for Metabolic Disease, The Mt. Sinai Hospital, N. Y. C.; Assistant Clinical Professor of Medicine, College of Physicians and Surgeons, N. Y. C.

Primary malabsorption syndrome includes several clinical entities: Celiac disease of childhood, tropical sprue and non-tropical sprue. It must be strictly separated from the secondary malabsorption syndrome caused by gross involvement of the small bowel by lymphosarcoma, amyloidosis and jejunoileitis, or resulting from extensive resection of the small bowel or from liver or pancreatic disease.

The outstanding symptoms of non-tropical sprue are diarrhea, weakness, weight loss, glossitis, abdominal distention and, not infrequently, hemorrhagic manifestations, tetany, parathesias and bone pain. The diagnosis is based on the presence of steatorrhea, anemia and exclusion of the above-mentioned disease causing secondary malabsorption.

A characteristic pattern of the small bowel on x-ray examination ("sprue pattern"), flat glucose and vitamin A tolerance tests hypocholesteremia, hypocalcemia, osteomalacia and certain findings in the peripheral blood and bone marrow support the diagnosis.

The treatment of primary malabsorption syndrome is essentially empiric. It consists of a high-protein diet limited in fats and carbohydrates and supplemented with vitamin B_{12}, folic acid, liver extract or iron. More recently, satisfactory results have been achieved in children and adults with the use of a gluten-free diet. This dietary regimen excludes strictly wheat, rice, oats and barley. It is based on the concept that patients with primary malabsorption syndrome exhibit an abnormal sensitivity to gluten. In severe refractory cases of non-tropical sprue, satisfactory results have been obtained with adrenal corticosteroids. When used in small doses, these hormones may be given over prolonged periods of time and may control satisfactorily the manifestations of the disorder.

Henry L. Bockus, M.D., Philadelphia, Pennsylvania

Professor and Chairman, Department of Medicine and Gastroenterology, Graduate School of Medicine, University of Pennsylvania; President, World Gastroenterological Association

Arthur B. French, M.D., Ann Arbor, Michigan

Assistant Professor of Internal Medicine; Member, Gastrointestinal Laboratory, University of Michigan Medical School

Richard H. Marshak, M.D., New York City

Associate Radiologist, Mt. Sinai Hospital

Robert J. Priest, M.D., Detroit, Michigan

Associate, Gastrointestinal Division, Henry Ford Hospital

1:00 P.M.

END OF FOURTH ASSEMBLY

THURSDAY AFTERNOON
October 2, 1958

Fifth Assembly

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: Sherwood R. Russell, M.D., St. Johns, Michigan

Secretary: Viola G. Brekke, M.D., Highland Park, Michigan

2:00 P.M.

The Andrew P. Biddle, M.D., Lecture

"FUNCTIONAL DISORDERS OF THE DIGESTIVE TRACT"

Henry L. Bockus, M.D., Philadelphia, Pennsylvania

Professor and Chairman, Department of Medicine and Gastroenterology, Graduate School of Medicine, University of Pennsylvania; President, World Gastroenterological Association

The following outline will be followed: (1) Definition and incidence of functional disorders. (2) Structural-functional interrelationships. (3) Functional disorders and the emotions. A. Experimental evidence. B. Clinical Observations. (4) Mechanism of abdominal complaints in relation to disturbed function. (5) Common functional disorders—their clinical orientation.

2:30 P.M.
"THE DOCTOR-PATIENT RELATIONSHIP"
LEWIS L. ROBBINS, M.D., Glen Oaks, New York
Director of Professional Services, Hillside Hospital, Glen Oaks, N. Y.

3:00 P.M.
INTERMISSION TO VIEW EXHIBITS

4:00 P.M.
"OCULAR AIDS IN DIAGNOSIS OF METABOLIC DISEASE"
ALFRED J. ELLIOT, M.D., Toronto, Ontario, Canada
Professor and Head of Department of Ophthalmology, University of Toronto

The important ocular indications of metabolic disease will be reviewed briefly, also their rôle in solving some of the problems with which the general practitioner is often confronted will be outlined. The rôle of the headache complaint will also be discussed.

Certain bedside optical aids which assist in clinical diagnosis will be demonstrated. The lecture will be illustrated with colour slides.

4:30 P.M.
"CAN YOU ANSWER YOUR PATIENTS' QUESTIONS ABOUT RADIATION?"
THOMAS L. SHIPMAN, M.D., Los Alamos, New Mexico
Health Division Leader, Los Alamos Scientific Laboratory

For a number of years it was almost unheard of for patients to inquire about the biological and genetic effects of radiation. That situation has changed completely and patients are not only confused and curious about many forms of radiation, including fallout from weapon testing, but also in some cases apprehensive about exposure to diagnostic x-rays. This paper will touch on a few specific points and stress the necessity for the medical professions becoming better acquainted with facts of radiation in general and becoming better informed concerning the orders of magnitude of various types of exposure to radiation.

5:00 P.M.
END OF FIFTH ASSEMBLY

THURSDAY AFTERNOON
October 2, 1958

Program of Sections

Section on Public Health and Preventive Medicine

5:00 to 6:00 P.M.
Sheraton Room, Sheraton-Cadillac Hotel
Chairman: J. K. ALTLAND, M.D., Lansing
Secretary: H. B. ROBINS, M.D., Battle Creek

"DIABETES MELLITUS AS A CHRONIC DISEASE"
HUGH L. C. WILKERSON, M.D., Boston, Mass.

Section on Gastroenterology and Proctology, Michigan Proctologic Society and Michigan Gastroenterology Society

5:00 to 6:00 P.M.
Parlor F, Statler Hotel
Chairman: E. J. TALLANT, M.D., Detroit
Secretary: J. F. WENZEL, M.D., Detroit

"PANCREATITIS"
HENRY L. BOCKUS, M.D., PHILADELPHIA, Pennsylvania

Section on Nervous and Mental Diseases

5:00 P.M. (Meeting)
6:30 P.M. (Reception and Dinner)
English Room, Sheraton-Cadillac Hotel
Chairman: S. C. MASON, M.D., Ann Arbor
Secretary: S. M. GOULD, JR., M.D., Ann Arbor, Michigan

"PSYCHOTHERAPY RESEARCH"
LEWIS L. ROBBINS, M.D., Glen Oaks, New York

Section on Ophthalmology

5:00 P.M. (Meeting)
6:30 P.M. (Reception and Dinner)
Bagley Room, Statler Hotel
Chairman: H. A. DUNLAP, M.D., Detroit
Secretary: F. A. BARBOUR, M.D., Flint

Panel on "DISORDERS OF THE MACULA"

"THE LESION OF THE MACULA AND PERIMACULAR AREA ASSOCIATED WITH EARLY CHILDHOOD"
HAROLD F. FALLS, M.D., Ann Arbor, Moderator
Associate Professor of Ophthalmology and Associate Geneticist

A "REFRESHER COURSE" OF GREAT VALUE TO PRACTITIONERS—THAT'S THE MSMS ANNUAL SESSION!

Participants:

"THE PATHOLOGY OF LESIONS IN AND ABOUT THE MACULAR AREA"

WINDSOR S. DAVIES, M.D., Detroit, Michigan
Professor of Clinical Ophthalmology, Wayne State University College of Medicine; Chief, Pathology Department, Kresge Eye Institute

and

"THE LESIONS OF THE MACULA AND PERIMACULAR REGION OF INVOLUTIONAL AND SENILE ORIGIN"

ALFRED J. ELLIOT, M.D., Toronto, Ontario, Canada

Section on Otolaryngology and Detroit Otological Society

6:30 P.M. (Reception and Dinner)

8:00 P.M. (Meeting)

Sheraton Room, Sheraton-Cadillac Hotel

Chairman: JAMES E. COYLE, M.D., Detroit
Secretary: HAROLD F. SCHUKNECHT, M.D., Detroit

Title to be announced

JOSEPH A. SULLIVAN, M.D., Toronto, Ontario, Canada

Section on General Practice

5:00 to 6:00 P.M.

Pan American Room, Sheraton-Cadillac Hotel

Chairman: E. M. WAKEMAN, M.D., Dearborn
Secretary: C. W. ROYER, M.D., Battle Creek

"GENERAL PRACTITIONER'S ROLE IN IMPROVEMENT OF MENTAL HEALTH"

HARRY H. WAGENHEIM, M.D., Philadelphia, Pa.

Section on Occupational Medicine

5:00 to 6:00 P.M.

Parlors G and H, Sheraton-Cadillac Hotel

Chairman: P. B. RASTELLO, M.D., Detroit
Secretary: T. I. BOILEAU, M.D., Birmingham

"HIDDEN OCCUPATIONAL HAZARDS IN INDUSTRIAL PROCESSES"

HENRY J. KREULEN, M.D., Grand Rapids, Michigan

EVERYONE YOU KNOW IS VIEWING THE EXHIBITS—JOIN THEM

THURSDAY EVENING
October 2, 1958

State Society Night

9:30 P.M.

Grand Ballroom, Sheraton-Cadillac Hotel

An evening of entertainment for all registrants, their ladies and guests
Cabaret-style Dance and Floor Show
Host: Michigan State Medical Society

FRIDAY MORNING
October 3, 1958

Sixth Assembly

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: FRANCIS W. DWYER, M.D., Detroit
Secretary: EVERAL M. WAKEMAN, M.D., Dearborn

9:00 A.M.

"THE ABUSE OF ANTIBIOTIC THERAPY"

PERRIN H. LONG, M.D., Brooklyn, New York

Professor of Medicine, State University of New York, Downstate Medical Center

It is difficult to tell where the use of antibiotics will end. We administer them to our patients. We feed them to our fowl and to our hogs. We preserve our fowl for marketing with them, and shortly they will be used to preserve fish and shellfish. They are sprinkled on our vegetables and flowers to keep them from becoming blighted. Truly, we can ask, what about antibiotics?
The uses and abuses of these substances will be discussed.

9:30 A.M.

"FATAL COXSACKIE INFECTIONS IN INFANTS"

JOHN M. CRAIG, M.D., Boston, Massachusetts
Assistant Professor of Pathology, Harvard Medical School; Pathologist, Children's Hospital, Boston

Fatal Coxsackie infections in the newborn and young infant have now been recognized related to sporadic familial infections, as epidemics in newborn nursery populations or as isolated instances of fatal myocarditis in the older infant. Three instances of fatal Coxsackie infection in the neonatal period have been identified with widespread nervous system and visceral lesions. The clinical and pathologic implications of these will be discussed.

10:00 A.M.

INTERMISSION TO VIEW EXHIBITS

11:00 A.M.

"TYMPANOPLASTY"

JOSEPH A. SULLIVAN, M.D., Toronto, Ontario, Canada

11:30 A.M.

"PREPARATION OF PATIENT FOR MEDICAL AND SURGICAL PROCEDURES"

O. Spurgeon English, M.D., Philadelphia, Pennsylvania
Professor and Head of Department of Psychiatry, Temple University Medical Center

To deal psychologically with patients in need of medical and surgical procedures, the physician should be aware of the many fantasies that surround hospitals and physicians themselves. It is unwise for the physician to assume that a strong physique or a robust or nonchalant personality is without these fantasies.

Everyone, and it seems appropriate to use a generality here, has his fears or apprehensions.

These fears have to do with pain—the pain of being ill. In both acute and chronic illness there is a fear of being helpless and having to be cared for. (Some may like this unconsciously but still feel, consciously, the need to protect against it.) Chronic illness often has "dangerous" names associated with it such as cancer, heart disease, tuberculosis or brain tumor. Underneath all disease runs the fear of death. Additionally, there is the problem, in hospitalization, even if only for a short time, of separation from home and relatives and the comforts one has been used to. There is the conflict of adjusting to hospital rules, the conflict of cost of treatment of surgery. There is conflict over the time involved which means a loss of money and livelihood, not to mention the guilt that may come from depriving other family members of tangible gratification through illness of the patient.

The added drama and urgency which surgery often necessitates may anaesthetize the patient to some of his problems for a few days but they reappear when convalescence gets underway. The surgeon should understand and be able to deal with the matter of pre and post operative discomforts, psychologically, as well as medically and surgically. Finally, a great psychological factor is involved in the proper time for the patient to return to work. This decision is often left to the patient or left undiscussed with great harm to the patient.

12:00 M.

"HUMAN PHARMACOLOGY"

Harry Gold, M.D., New York City
Professor of Clinical Pharmacology, Cornell University; Attending Physician and Chairman of the Cardiac Clinic, Hospital for Joint Diseases; Attending Physician-in-Charge-Cardio-Vascular Research Unit, Beth Israel Hospital

The unprecedented advances in recent years in the chemical isolation of pure compounds from natural sources and the synthesis of new ones have resulted in thousands of potent agents and mixtures with potential utility for the treatment of disease. The challenge to pharmacologists, medical practitioners, and students of therapeutics, to keep apace, to sort out those that are safe and useful and represent genuine therapeutic progress, has been commonly met in two ways: (1) screening in laboratory animals utilizing some specific mechanism such, for example, as the effect on the diffusion rate of a dye across the synovial membrane of the cat for the most promising cortical steroid as an anti-inflammatory drug, or the testing of compounds on artificially induced disorders or diseases in laboratory animals as, for example, arthritis by the injection of formaldehyde in the rat or cardiac fibrillation induced by cyclopropane and epinephrine in the cat or dog; and (2) the conventional "clinical trial" in which the new materials are evaluated in the setting of the practical care of patients. The laboratory animal screening methods supply important insight into the mechanisms of drug action but the yield in terms of therapeutic utility based on predictions from such studies has been meager and disappointing, chiefly because the response to drugs differs with the species of animal and the artificially induced diseases usually bear only partial identity with the natural diseases in man. The conventional "clinical trial" also falls short of the objective, being substantially the method of therapeutics, which is not a science but an art, involving several items, chemical, physical, and psychological, simultaneously applied, and in which the orientation is the cure of the patient without regard to the deciding factor. The evaluation of new drugs under these conditions yields only a suggestive mass of clinical impression from which it is quite impossible to sort out the part played by the pharmacologic actions of the new drugs. In the face of these difficulties, a relatively new discipline has emerged, the science of human pharmacology. It involves experimental techniques adapted to ascertain decisive qualitative and quantitative facts about drug actions, directly in humans and human diseases, methods so designed as to obtain the maximum information from a minimum number of patient-participants and in the shortest period of time. In these designs special attention is paid to such matters as the rôle of suggestion in the effects of drugs, the problems of patient and physician bias, the placebo, the "double-blind" technique, the cooperation of the patient, proper safeguards for the participant's welfare, bioassay, statistical validation of data, and the ethical aspects of experimental investigation in humans. Some of these problems will be illustrated from our experiences in human pharmacology.

12:30 P.M.

Title to be announced

Frank B. Kelly, Jr., M.D., Chicago, Illinois

1:00 P.M.

END OF SIXTH ASSEMBLY

1:00 P.M.

FINAL INTERMISSION TO VIEW EXHIBITS

FRIDAY AFTERNOON

October 3, 1958

Program of Sections

Section on Pathology and Michigan Pathological Society

2:00 to 5:00 P.M. (Meeting)

6:00 P.M. (Reception and Dinner)

8:00 P.M. (Business Meeting)

English Room, Sheraton-Cadillac Hotel

Chairman: Viola G. Brekke, M.D., Highland Park

"THE NATURE AND SIGNIFICANCE OF PULMONARY HYALINE MEMBRANES IN NEONATAL ASPHYXIA"

John M. Craig, M.D., Boston, Massachusetts

The nature and significance of the pulmonary hyaline membranes in the pathogenesis of respiratory insufficiency and asphyxia in the newborn has been long debated. It has been shown by immunofluorescent techniques that such membranes are composed chiefly of fibrin. By the use of injection and plastic reconstructions it has been shown that such membranes are truly obstructive to the passage of air into the alveolar spaces. The investigation of the respiratory dynamics in such infants and of their lungs obtained at postmortem are entirely consistent with the above interpretations.

Section on Medicine

1:00 to 1:30 P.M.

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: J. M. Kaufman, M.D., Detroit
Secretary: J. W. Hall, M.D., Traverse City

"LACTIC OEHYDROGENASE AS AN AID IN DIAGNOSIS OF CORONARY ARTERY DISEASE"

John R. Simpson, M.D., Birmingham, Michigan

END OF 1958 ANNUAL SESSION

THE "BLUE SHIELD IDEA"

(Continued from Page 1014)

enters into the Blue Shield transaction between doctor and patient. The Blue Shield is the doctor's own mechanism, created in his own image, and dedicated to the sole purpose of helping the doctor the better to serve his patients. Blue Shield pays no tribute in the form of profits to third party owners; nor is Blue Shield subservient to the whims of social theorists who want to reshape medical practice to suit their own ideologies, or to the vote-catching designs of politicians.

Service to the community . . . dependable benefit to the patient . . . the private, confidential relationship of doctor and patient—these are the exclusive hallmarks of Blue Shield, and the bulwark of our voluntary plan of medical care prepayment in America.

The Blue Shield idea is rooted in the vital needs of the human being and in the best aspirations and traditions of the physician.

PERIODIC HEALTH SURVEYS

For nearly two years, THE JOURNAL has published short papers by prominent members directing attention to the advisability of periodic health surveys by the family physician and outlining what not to miss. The profession's leaders have practiced such a program for a great many years to a limited degree.

An appraisal of periodic health examination, prepared for publication by the Institute of Industrial Health of the Department of Medicine, Medical School, University of Michigan, Ann Arbor, concerns 500 executives, mostly male with an average age of forty-eight, who underwent a comprehensive examination lasting four days. Of these, 41 per cent were found to have abnormalities which they did not know about, 11 per cent had diseases they already knew about which demanded attention, and 25 per cent had conditions not serious. Forty-five per cent had gastrointestinal abnormalities, 24 per cent were cardiovascular and 18 per cent had nose and throat affections.

Of the group having previously unknown conditions, four had carcinoma (prostate, lung, colon, and skin), twenty-seven had hypertension, sixteen peptic ulcer, twelve gallstones, eight organic heart disease, and three diabetes.

This preliminary report confirms the attitude of the Michigan State Medical Society that periodic health examinations are desirable—even though some of our doctors believe they are too busy with other matters to give them. Nothing is more important than the recognition of the seventy out of 500 mentioned above. This is much too high a percentage to overlook.

Twenty per cent of these diagnoses could not be made on history and physical examination alone but demanded laboratory confirmation.

PLANNING FOR THE FUTURE

The past half century has witnessed the greatest scientific advances in history. At this moment the United States is upon the threshold of economic abundance. This is the era of a rapidly expanding technology and economy. The immediate future appears to be rich in the assurance of an incredible growth and development as to make the progress to now seem dilatory. Medicine has kept the pace—even at times has led in the parade of achievement.

What of the future?

Does the medical profession have any plan or plans for its role in this bright tomorrow? Who will determine medicine's place? If our profession has any plans for the future, they are the best kept secret of the age. Industry has known the need for planning for the future for decades. They spend considerable sums upon research in this field and budget this money as investment. Governmental agencies also plan for the future. Not too high a titre of prescience is needed to suspect that labor unions are active in future planning.

Because no man can predict the future, shall no man plan ahead? This argument denies the validity of education. Education is the best means of preparing for the future. Alas, a well educated man is not always a well prepared man. Are our medical schools equipping the doctor of medicine of tomorrow as adequately as can be, *or need be?*

Our noble profession is heavily occupied in caring for existing matters that are often of an emergency nature. The assertion that we are resistive to change falls flat, especially in the field of technique and therapy. Here our passion for the 'new' makes the fickle style swings in women's clothes appear pedestrian. When the matter is economic, social or political, *then* we are resistive to change. Yet our environment is made up of these factors—and when the sands shift a bit we tend to use our heads like the ostrich. And so in 1968 or 1978 the expensively educated and well-trained doctor of medicine might not be deciding whether to use drug A or drug B. His will be the complex decision as to whether the dose should be 0.02 or 0.03 milligrams. You and I received a torch from our predecessors. Is it to be a stick without a spark that we pass on to our successor?
—RALPH A. JOHNSON, *Detroit Medical News*, Feb. 10, 1958.

Annual Reports

ANNUAL REPORT OF IODIZED SALT COMMITTEE—1957-1958

A meeting of the Iodized Salt Committee was held on December 16, 1957.

Mr. William J. Burns, Executive Director of the MSMS, reported on his meeting with Mr. J. Hanley Wright of Chicago, the representative of the Salt Producers Association. The purpose of this meeting was to form plans for a new public campaign—another "Michigan First"—to re-emphasize the importance of using Iodized Salt.

Plans were made to release three or four reports on endemic goitre to the newspapers annually, and the salt manufacturers were also encouraged to advertise the use of iodized salt.

Report on Movie.—Dr. R. L. Waggoner and Dr. R. C. Moehlig reported on the progress of their movie which is to be shown at schools, PTA groups, et cetera. Dr. Moehlig is translating some of the German experience with iodized salt and this is being incorporated into our movie.

A communication from the National Committee of U. S. Public Health Service from Dr. O. P. Kimball was read and discussed.

A vigorous educational program was decided upon to stress again the Iodized Salt story. TV shows over the University of Michigan station, placards at the MCI, a paper on the MSMS Postgraduate Medical Education program, and talks at the 1959 Michigan Rural Health Conference and the 1960 Rural Health Conference, were decided upon.

The State Health Commissioner and his staff were commended for their efforts in public education regarding salt-containing iodine.

We believe that we are continuing in the right direction by putting into effect this vigorous program as outlined. A summer meeting of our Committee and the Salt Producers Association has been scheduled.

Respectfully submitted,

B. E. Brush, M.D., *Chairman*
H. A. Towsley, M.D., *Vice Chairman*
L. A. Berg, M.D.
J. B. Blodgett, M.D.
J. R. Carney, M.D.
R. C. Moehlig, M.D.
R. L. Rapport, M.D.
R. L. Waggoner, M.D.

ANNUAL REPORT OF ADVISORY COMMITTEE TO THE MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY—1957-1958

The Advisory Committee to the Michigan State Medical Assistants Society has had two formal meetings. In Ann Arbor, November 25, 1957, and in Lansing, April 13, 1958.

In Ann Arbor we met with the officers and the Educational Committee of the Michigan State Medical Assistants Society, together with representatives of the Extension Department of the University of Michigan. As a direct result of this meeting, Dr. Ralph Steffek of the University of Michigan's Extension Department, organized an educational program which started in February, 1958, and will continue for three years. This is an ambitious type of "night school" program, and is the first of its kind in the United States, which is a complete course while still working. Through the efforts of the committee and an application from the University of Michigan, the Kellogg Foundation of Battle Creek has granted the University $7,200 to develop the course syllabi being used, which will enable textbooks to be printed and allow the course to be given by any college. In September of 1958, the courses will be given by the University of Michigan in six centers: Lansing, Flint, Pontiac, Detroit, Jackson, and Battle Creek.

In Lansing, April 13, 1958, we met in conjunction with the Board of Michigan State Medical Assistants Society at their spring Presidents Conference. Your committee feels that many members of the state society are not acquainted with the Michigan State Medical Society sponsored Medical Assistants organization. We feel that a continuing program should be undertaken by this Advisory Committee to make the MSMS members realize that MSMAS is a good organization which will return benefits to the individual physician, if his assistant belongs and participates.

We suggested to the Board of MSMAS, that since they have no central office and no executive secretary, the Detroit office of the MSMS might help them in clerical work and in maintaining better communications, both with their own members as well as with MSMS—if this activity meets with the approval of the State Medical Society.

We feel that the MSMAS is having organizational and growing pains, and we strongly recommend that the future advisory committees of the MSMS meet with the MSMAS Executive Board as often as possible to sincerely help these girls with their problems.

Respectfully submitted,

J. W. Rice, M.D., *Chairman*
D. B. Johnson, M.D.
J. E. Manning, M.D.
E. R. Sherrin, M.D.
Ralph W. Shook, M.D.
T. J. Trapasso, M.D.
Otto van der Velde, M.D.
J. E. Webber, M.D.

ANNUAL REPORT OF ADVISORY COMMITTEE TO WOMAN'S AUXILIARY—1957-1958

This committee did not hold any formal meetings this year, as there were no matters which the Chairman felt were of sufficient magnitude to call a meeting of the entire committee.

Several matters were discussed with the President of the Auxiliary and the Chairman, and advice was offered.

The committee has been ready and willing to assist the Auxiliary at all times and wishes to express their thanks for the opportunity of serving.

Respectfully submitted,

E. H. Fuller, M.D., *Chairman*
A. B. Aldrich, M.D.
J. S. Rozan, M.D.
D. A. Young, M.D.

ANNUAL REPORT OF THE CANCER CONTROL COMMITTEE, MICHIGAN STATE MEDICAL SOCIETY—1957-1958

This committee has held no meetings during the year because no items have been submitted.

All problems relating to cancer have been studied by The Cancer Coordinating Committee on which there are representatives from the Michigan State Medical Society. This is an active committee engaged in over-all cancer activities.

In the interest of efficiency, the elimination of the Cancer Committee, Michigan State Medical Society, is recommended.

Respectfully submitted,

Milton A. Darling, M.D., *Chairman*
J. W. Hubly, M.D.
F. W. Bald, M.D.
R. E. Carlson, M.D.
E. I. Carr, M.D.
F. C. Cretsinger, M.D.
R. J. Fortner, M.D.
J. H. Fyvie, M.D.
L. E. Holly, M.D.
C. N. Hoyt, M.D.
Mr. D. E. Johnson
H. M. Nelson, M.D.
R. E. Olsen, M.D.
H. M. Pollard, M.D.
L. W. Reus, M.D.
E. M. Wright, M.D.
W. A. Hyland, M.D.

ANNUAL REPORT OF COMMITTEE ON MENTAL HEALTH—1957-1958

During the year ending May, 1958, the Committee on Mental Health held three general meetings. The Subcommittee for Definitions of Psychotherapy and Counseling was reactivated.

Members participated in the following meetings:

1. Fourth annual Conference of Mental Health Representatives of the State Medical Associations sponsored by the Council on Mental Health of the American Medical Association.
2. Preventive Medicine Committee Meeting of Michigan State Medical Society.
3. Meetings with Michigan Society of Neurology and Psychiatry.
4. Organizational Meeting of committee chairmen of Michigan State Medical Society.
5. Meetings of Planning Committee for the Conference on Rehabilitation held in May, 1958.

A number of mental health bills, which had been introduced in the State Legislature, were studied by the Committee. Conclusions on these bills were submitted for the information of the Legislative Committee.

The Committee studied and discussed the Bill concerning Certification of Psychologists which was introduced in the House of Representatives of the Michigan Legislature by the psychologists. The Committee again reaffirmed its position that psychologists should not be registered, or licensed by law, until problems are worked out regarding complete definitions as to the services to be rendered by psychologists. Members of the Committee appeared twice before the Executive Committee of the Michigan State Medical Society Council to clarify our position in this matter. Although the Certification Bill for psychologists died in committee, it is expected that it will be introduced again next year.

A member of the Committee was appointed as a member of the Liaison Committee of the Michigan Society of Neurology and Psychiatry to allow for a closer association of the two organizations.

A report was made by the Subcommittee on Addiction, concerning the problem of narcotic addiction in the City of Detroit. Our Committee felt that this matter should be kept under careful consideration.

The Committee assembled material on mental health for the October, 1957, issue of The Journal of the Michigan State Medical Society. Among this material were medical papers and an editorial concerning mental illness and mental health.

A member of the Committee testified before a Legislative Hearing on the Problem of sexual deviation.

One member of our Committee attended a Postgraduate Study which considered psychiatric problems in patients encountered in the general practitioner's office. The Committee decided we should take an active interest in programs of this nature.

The Chairman wishes to thank the Committee on Mental Health for their interest and support, and it is our hope that the activities of the Mental Health Committee have been of some assistance to the Michigan State Medical Society.

Respectfully submitted,

I. A. LaCore, M.D., *Chairman*
Z. S. Bohn, M.D., *Vice Chairman*
C. P. Barker, M.D.
H. W. Bird, M.D.
P. N. Brown, M.D.
W. E. Clark, M.D.
R. O. Creager, M.D.
J. M. Dorsey, M.D.
N. A. Fleishmann, M.D.
T. J. Heldt, M.D.
L. N. Hershey, M.D.
L. E. Himler, M.D.
W. T. Hyslop, M.D.
R. A. Jaarsma, M.D.
R. F. Kernkamp, M.D.
M. H. Marks, M.D.
F. O. Meister, M.D.
C. J. Mumby, M.D.
W. H. Obenauf, M.D.
R. W. Waggoner, M.D.
H. B. Zemmer, M.D.

ANNUAL REPORT OF PREVENTIVE MEDICINE COMMITTEE—1957-1958

A wide variety of activities was undertaken by the numerous advisory committees during the past year. While the individual detailed committee reports are published, a review of the high points in some of these is both informative and illustrative of the type of service rendered by these important committees.

The Tuberculosis Control Committee has been working steadily on the problem arising out of the decreased utilization of TB sanatorium beds; on the matter of radiation hazards that may arise in mass TB x-ray programs and the setting of a minimum age for participating children; and on legislation regarding recalcitrant tuberculosis patients.

The *Industrial Health Committee* reported that the industrial health situation was most pressing in the 25,000 small plants in the State partly because insurance carriers are interested mostly in traumatic conditions. It urged the appointment by county societies of committees on occupational medicine to aid in the solution of this and other problems.

The *Mental Health Committee* has had under consideration legislative matters related to the licensure of psychologists and the practice of psychotherapy by nonmedical personnel; and has studied a number of mental health bills introduced before the State Legislature.

Among the many questions before the *Child Welfare Committee* were those concerned with adoption procedures, poison control centers, anti-poliomyelitis vaccination and school health problems. The activities of this Committee are so extensive as to require the services of several sub-committees.

The *Geriatrics Committee* has continued its aggressive activities in the interest of the aged through conferences, study of the nursing home problem and a visit to Carmel Hall in Detroit.

The *Committee on Postgraduate Medical Education* constantly reviews the effectiveness and up-to-dateness of its teaching program, modifying and introducing changes aimed to inform and assist the practitioner in the field.

The *Iodized Salt Committee* continues its educational efforts in goitre prevention through movies, television, radio and conferences.

The *Maternal Health Committee* has under way the establishment of a maternal tissue registry and continues its valuable studies of maternal and infant mortality.

The *Rheumatic Fever Control Committee* has again awarded postgraduate fellowships to six physicians who will study at St. Francis Sanatorium in New York. In addition to its numerous activities, it has arranged for participation in Michigan Heart Association Wet Clinics.

The *Venereal Disease Control Committee* has arranged with the State Laboratories for administering the Treponema Pallidum Immobilization tests. It has also considered changes in the Premarital Law and has made a survey of mass blood testing and its results. The question of discontinuance of routine serologic tests by some hospitals is being investigated.

The *Preventive Medicine Committee* as a whole is taking steps to develop a Michigan Conference on Athletic Diseases during the coming year; and it has reviewed together with the State Health Commissioner, the latter's budget proposals for the coming year.

As may be seen from this brief summary, much ground has been covered and many problems attacked diligently. As always, Dr. A. E. Heustis, our State Health Commissioner, has participated helpfully in our deliberations for which we are deeply grateful.

Respectfully submitted,
William S. Reveno, M.D., *Chairman*
I. A. LaCore, M.D.
B. E. Brush, M.D.
M. A. Darling, M.D.
R. R. Dew, M.D.
S. T. Harris, M.D.
R. M. Heavenrich, M.D.
A. E. Heustis, M.D.
F. A. Jones, Jr., M.D.
D. F. Kudner, M.D.
M. B. Meengs, M.D.
A. H. Price, M.D.
W. B. Prothro, M.D.
R. L. Rapport, M.D.
J. M. Sheldon, M.D.
Frank Stiles, Jr., M.D.
H. A. Towsley, M.D.

ANNUAL REPORT OF THE MATERNAL HEALTH COMMITTEE—1957-1958

1. Our Maternal Health Committee had the first meeting at the Sheraton-Cadillac Hotel in November, 1957. The planned program was reviewed and subcommittees were appointed to: (a) continue the maternal mortality study and publication, (b) encourage maternal mortality programs and better relationships with county societies, (c) encourage adult education, (d) develop perinatal mortality studies. Efforts were to continue toward a tissue registry of all pathology encountered in maternal deaths.

2. The second meeting was held at the Lansing Country Club and the wives were invited. The sub-committees all offered reports and while progress is slow it was felt that we were definitely making progress. The Health Department showed an exhibit of fetal waste and Dr. Trescott showed slides and reviewed his subject of sex education that he gives to the Lansing schools. The tissue registry is now in operation at the University of Michigan. This February meeting was voted a success.

3. The third meeting is to be held in Saginaw, Michigan, on June 12. Clarence Toshach and his wife are entertaining the members of the Committee and their wives after the scientific meeting and dinner. The meeting is to review the work that Saginaw has done on perinatal mortality, emphasize the method used in evaluating maternal deaths, and summarize the work of the year.

As chairman of the Maternal Health Committee, I would like to comment that I believe the committee serves two functions: one is tangible and the other intangible. The first serves to promote an analysis of obstetrics, a study of maternal and perinatal mortality, promote medical and lay education and promote better public relationships. The intangible values arise from assembling interested obstetricians from different communities, discussing their community problems and possibly taking back to their community a new approach or a renewed interest and vigor.

Respectfully submitted,
F. A. Jones, Jr., M.D., *Chairman*
H. A. Ott, M.D.
F. W. Bald, M.D.
C. A. Behney, M.D.
C. M. Bell, M.D.
H. R. Brukardt, M.D.
Goldie B. Corneliuson, M.D.
A. L. Foley, M.D.
W. F. Goins, M.D.
J. E. Harryman, M.D.
E. F. Hersey, M.D.
H. W. Longyear, M.D.
A. G. McQuaig, M.D.
N. F. Miller, M.D.
H. R. Mooi, M.D.
H. W. Sill, M.D.
P. S. Sloan, M.D.
Mary C. Stellhorn, M.D.
C. S. Stevenson, M.D.
P. E. Sutton, M.D.
D. W. Thorup, M.D.
J. H. Tisdel, M.D.
Kathryn D. Weburg, M.D.
H. R. Williams, M.D.
Mary Lou Byrd, M.D., *Advisor*
J. V. Fopeano, M.D., *Advisor*

ANNUAL REPORT OF TUBERCULOSIS CONTROL COMMITTEE—1957-1958

The Tuberculosis Control Committee met on January 8, 1958 and again on March 5, 1958. The following principle items were brought up for discussion:

Radiation Hazards.—The Committee recommended that survey chest x-rays not be done on children under the age of eighteen unless they had reacted positively to a tuberculin skin test.

Tuberculin Skin Testing.—The Committee recommended that there be more extensive use of tuberculin skin testing, particularly in children under eighteen, by general practitioners in the State of Michigan.

Case Finding.—The Committee recommended the following methods for increased case finding of tuberculosis: (1) tuberculosis skin testing, (2) mass x-ray of high incidence groups, (3) routine hospital admission x-rays, (4) industrial and pre-employment x-rays and (5) continuation of mass chest x-rays as currently being conducted throughout the state.

Utilization of Excess Tuberculosis Beds.—The Committee recommended that County Tuberculosis Sanatoria, with the approval of County Boards of Supervisors and in co-operation with County Medical Societies concerned, accept patients with certain chronic diseases as private patients to be managed by their own private physicians if so desired. Component County Medical Societies of MSMS were notified of this action through the Secretary's Letter.

There was little unanimity of opinion among committee members as how to best utilize excess tuberculosis beds. It was generally felt that the solution varied dependent upon the facility involved. No recommendation was made to The Council other than that each county medical society involved should interest itself in the local situation and work in cooperation with the county board of supervisors to solve this problem for each separate sanatorium.

A special committee to study utilization of vacant tuberculosis facilities was approved by the Executive Committee of The Council at its April 15, meeting and such a Committee was appointed by the Chairman of The Council. At the time this report was submitted this special committee had not met.

Legislation Regarding Tuberculosis Control.—House Bill 452 which proposed progressive closing of three State Tuberculosis Sanatoria was discussed. The Tuberculosis Control Committee was represented at an open hearing concerning this Bill on March 5, 1958 and presented a united front advising the House Committee that this action would remove activities of the State in tuberculosis control from three important areas. It was the feeling of those who attended the hearing that the House Committee reacted favorably toward these objections.

Senate Bill 1215 which proposed utilization of excess beds in State Sanatoria for purposes other than isolation and treatment of Tuberculosis was discussed at length. Representatives of the Tuberculosis Control Committee had met with the sponsors of this Bill and objected to the wording which suggested that the State of Michigan could enter into the private practice of medicine. The Committee recommended to The Council that Senate Bill 1215 be approved and supported with certain changes in the wording of the Bill to avoid this insinuation.

Home Treatment of Tuberculosis.—The Committee recommended to The Council that the portion of the State Health Department budget regarding home treatment of tuberculosis be approved. It should be noted that the vote on this motion was five to four with two members abstaining.

Journal MSMS.—The Committee requested that the November, 1959, issue of the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY be allocated to the Tuberculosis Control Committee. This request was granted by Editor Haughey and activities have begun to organize contributions to this issue.

Respectfully submitted,
R. L. RAPPORT, M.D., *Chairman*
R. C. BATES, M.D.
ABRAHAM BECKER, M.D.
M. B. CONOVER, M.D.
W. N. DAVEY, M.D.
J. L. EGLE, M.D.
J. L. ISBISTER, M.D.
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G. H. PHILLIPS, M.D.
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JACK FOY WU, M.D.
S. A. YANNITELLI, M.D.
STEWART YNTEMA, M.D.
G. T. McKEAN, M.D., *Advisor*

ANNUAL REPORT OF THE VENEREAL DISEASE CONTROL COMMITTEE—1957-1958

A meeting was held on March 13th, 1958, at which time a number of important matters were considered.

1. Dr. H. E. Cope reported that the Michigan Department of Health is now prepared to administer T.P.C.F. Tests, to aid in the evaluation of biologic false positive reactors to the standard serologic test. The suggested priorities were as follows:

(a) Those cases in which special medical dispensation for marriage is requested on the basis of probable biologic false positive reaction.

(b) Problem blood test taken in pregnancy, in which the physician believes there is a biologic false positive reaction or for which immediate treatment would be needed if the patient were actually infected with syphilis.

(c) Special problem cases submitted by physicians or health departments after being screened by a Venereal Disease Control Officer.

The committee complimented the Health Department for its fine work in introducing this test and moved that the availability and criteria used be published in THE JOURNAL of the Michigan State Medical Society, and the County Medical Society Bulletins. This information has been published in THE JOURNAL MSMS of April, 1958.

2. The reconsideration of a previous motion relating to the premarital laws, it being generally agreed that the present law works some hardships on patients who are no longer infectious. This matter was tabled after considerable discussion, but the committee voted to modify the rules relating to medical dispensations so that an individual who has had the infectious syphilis and has been adequately treated can be married as soon as an adequate decline in the blood titre is evident.

3. Consisted of a consideration of a further report by Dr. Cowan on the results of mass blood testing, wherein he showed that the greater use of mass blood testing would be an economic benefit by reduction of the number of cases of psychosis due to syphilis confined in mental hospitals in Michigan.

4. Concerns serologic testing and accreditation of hospitals. It was pointed out by members of the committee that some hospitals discontinued routine serologic tests and the committee moved that it be recommended to the Michigan Department of Health, that they survey the hospitals in Michigan on their routine hospital admission serologic policy and attempt to get information on the number of hospitals doing this routine test, and the results they are obtaining. It is hoped that this information will be used as a guide in future hospital policy.

A second meeting will be held in July, subsequent to the publishing of this report, and a supplementary report will be issued following the meeting.

Respectfully submitted,
FRANK STILES, JR., M.D., *Chairman*
V. W. CAMBRIDGE, M.D.
J. A. COWAN, M.D.
A. C. CURTIS, M.D.
R. H. GREKIN, M.D.
P. J. HETTLE, M.D.
H. L. KEIM, M.D.
L. W. SHAFFER, M.D.
H. C. TELLMAN, M.D.
KORNELIUS VANGOOR, M.D.
R. S. BREAKEY, M.D.

ANNUAL REPORT OF THE SCIENTIFIC RADIO COMMITTEE—1957-1958

During the current year, forty programs for lay education were tape-recorded and distributed in the state at weekly intervals over the following stations: WAGN, Menominee; WOAP, Owosso; WBRN, Big Rapids; WBFC, Fremont; WDET, Detroit; WBCK, Battle Creek; WKAR, East Lansing; WDBC, Escanaba; WLDM, Detroit; WIBM, Jackson; WMDN, Midland; WUOM, University of Michigan; WWBC, Flint, and WFUM, University of Michigan (Flint).

1. *Distribution and Advertising.*—This year for the first time in the history of the Scientific Radio Committee, the Radio Broadcasting System of the University of Michigan, under the direction of Mr. Edwin Burrows, prepared a brochure describing programs under the heading "Prescription for Health." These brochures were sent to every radio station in the State of Michigan. In addition, a letter was addressed to the president and secretary of every county medical society with the brochure enclosed, encouraging each county society to contact their local radio station for distribution of the

radio programs. These brochures were sent out late in November, 1957, and we are just beginning to receive additional requests from stations for these programs.

As a result of these efforts, two new stations were added to the chain distributing these recordings.

The committee would like to urge strongly that those physicians located in communities where the programs are not now being distributed make every effort to get these programs on the air for the coming year over their local stations.

2. *Programing.*—The general plan of preparation of the radio series has been altered for the current year. Instead of one speaker carrying the load as in previous years, attempts have been made with a number of the programs to have panel discussions as indicated in the summary sheet of the 1957-1958 Scientific Radio Series.

There has been an average of a little better than fifty requests per week for written copies of the talks given. These requests have been filled by the mailing service of the University Broadcasting System.

Arrangements have been made to provide continuous programs throughout the summer on the "Prescription for Health" series to those stations now carrying the programs. These are to be provided by the University using as talent members of the faculties of the School of Public Health, School of Nursing, School of Dentistry and School of Pharmacy. Several of the anticipated programs in this series will be directed to career activities. The regular program, "Prescription for Health," will resume in October, 1958.

Again this committee would like to call to the attention of members of the State Medical Society that tape recordings of these programs are available through the Public Relations Office of the State Society and that they may be obtained by any member of the Society for his own use or for the use in presentation of subjects to lay audiences. It is also suggested that any of the members of the State Society who are currently subscribers to the *Audio Digest* and have a tape recording device with playback could use these talks for source material if they are interested.

The committee regrets to report that one of its members, William L. Foster, M.D., died during this year.

Respectfully submitted,

HARRY A. TOWSLEY, M.D., *Chairman*
CARL B. BEEMAN, M.D.
S. J. BEHRMAN, M.D.
JOHN H. BUELL, M.D.
C. G. CALLANDER, M.D.
C. T. FLOTTE, M.D.
*WILLIAM L. FOSTER, M.D.
GORDON H. SCOTT, PH.D.
JOHN M. SHELDON, M.D.
R. WALLACE TEED, M.D.
KENNETH W. TOOTHAKER, M.D.

*Deceased

SCIENTIFIC RADIO SERIES—1957-1958

No.	*Date*	*Subject*	*Speaker*
10- 4-57	1	Psychological Aspects of Pregnancy-I	George Morley, M.D. Samuel Behrman, M.D.
10-11-57	2	Psychological Aspects of Pregnancy-II	Tommy Evans, M.D. Saul Harrison, M.D.
10-18-57	3	Asian Flu	F. Davenport, M.D.
10-25-57	4	The Impact of the New Baby in Your Home-I	George Lowrey, M.D. Stuart Finch, M.D.
11- 1-57	5	The Impact of the New Baby in Your Home-II	Samuel Behrman, M.D.
11- 8-57	6	The Poison Control Center	George Lowrey, M.D.
11-15-57	7	The Symptoms of Disease—Vomiting	Robert Bolt, M.D. Ernest Watson, M.D.
11-22-57	8	Auto Accident Control	Seward Miller, M.D. John Rodger, M.D.
11-29-57	9	The Symptoms of Disease—Abdominal Pain	Keith Henley, M.D. C. T. Flotte, M.D.
12- 6-57	10	The Symptoms of Disease—Diarrhea and Constipation	Daniel Hunter, MD. Norman Talner, M.D.
12-13-57	11	The Symptoms of Disease—Headache	Kenneth Magee, M.D. James Taren, M.D.
12-20-57	12	The Symptoms of Disease—Fever	Nancy Furstenberg, M.D.
12-27-57	13	Physical Fitness and Health Maintenance	Charles Tupper, M.D.
1- 3-58	14	Poliomyelitis-I	David Dickinson, M.D.
1-10-58	15	Poliomyelitis-II	David Dickinson, M.D.
1-17-58	16	Kidney Diseases-I	William Oliver, M.D.
1-24-58	17	Kidney Diseases-II	Ian Thompson, M.D.
1-31-58	18	Kidney Diseases-III	John Weller, M.D.
2- 7-58	19	Heart and Cardiovascular Disease-I	Franklin Johnston, M.D.
2-14-58	20	Heart and Cardiovascular Disease-II	Herbert Sloan, M.D.
2-21-58	21	Heart and Cardiovascular Disease-III	Aaron Stern, M.D.
2-28-58	22	Heart and Cardiovascular Disease-IV	Aaron Stern, M.D.
3- 7-58	23	Fads in Dieting	Miss Isabel Foster, Dietitian
3-14-58	24	Cholesteral—What is it?	David Streeten, M.D.
3-21-58	25	Concepts of Allergic Disease-I	John Sheldon, M.D.
3-28-58	26	Concepts of Allergic Disease-II	John Sheldon, M.D.
4- 4-58	27	Cancer-I	Duncan McLean, M.D.
4-11-58	28	Cancer-II	George Block, M.D.
4-18-58	29	Cancer-III	Thomas Flotte, M.D.
4-25-58	30	Cancer-IV	Daniel Hunter, M.D.
5- 2-58	31	Present Concepts of Medical Education	Robert Lovell, M.D.
5- 9-58	32	Mental Health-I	Stuart Finch, MD.
5-16-58	33	Mental Health-II	Philip Brown, M.D.
5-23-58	34	Arthritis and Allied Diseases-I	Ivan Duff, M.D. and Charles Denko, M.D.
5-30-58	35	Arthritis and Allied Diseases-II	Leonard Bender, M.D.
6- 6-58	36	Eye Disease—Cataracts, Glaucoma	F. Bruce Fralick, M.D.
6-13-58	37	Summer Allergies	Kenneth Mathews, M.D.
6-20-58	38	Skin Problems of the Adolescent	Dermatology Staff
6-27-58	39	Skin Problems of the Adult	Dermatology Staff

LAY MEDICINE DURING EARLY MIDDLE AGES

(Continued from Page 1007)

Notes

For other aspects of medieval medicine, see Gordon, B. L.: Medicine in the Koran, *The Journal of the Medical Society of New Jersey,* October 1955, vol. 52, pp. 513-519; and Gordon, B. L.: Arabian Medicine in the Post-Koranic Period, *The Journal of the Michigan State Medical Society,* vol. 55:1109-1116 (Sept.) 1956.

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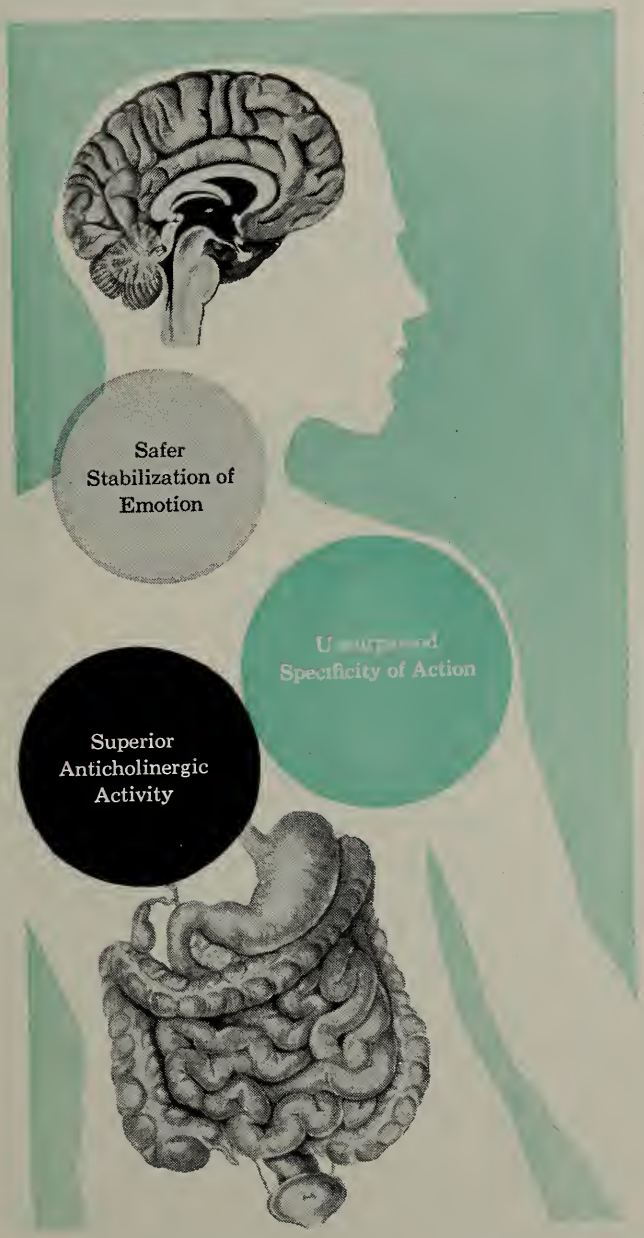
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5. Baas, J. H.: *Opus cited,* p. 234.
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Controls Stress
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Dosage: One tablet three times a day.

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Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

POLICIES OF THE MICHIGAN DEPARTMENT OF HEALTH RELATIVE TO HOSPITAL INFECTIONS

In order that the Michigan Department of Health may give all possible assistance to hospitals manifesting outbreaks of infections, the following plan for co-ordinating services within the Department has been developed:

Personnel from the following divisions will participate in the investigation and control of the infections on request:

Division of Disease Control, Records and Statistics
- The Chief of the Section of Acute Communicable Disease

Division of Maternal and Child Health
- The Chief of the Section of Hospital Consultation and Licensing
- The Nursing Consultants of this Section
- The Sanitary Engineers assigned to this Section from the Division of Engineering

Division of Laboratories
- The Co-ordinating Physician and bacteriologists

The plan is as follows:

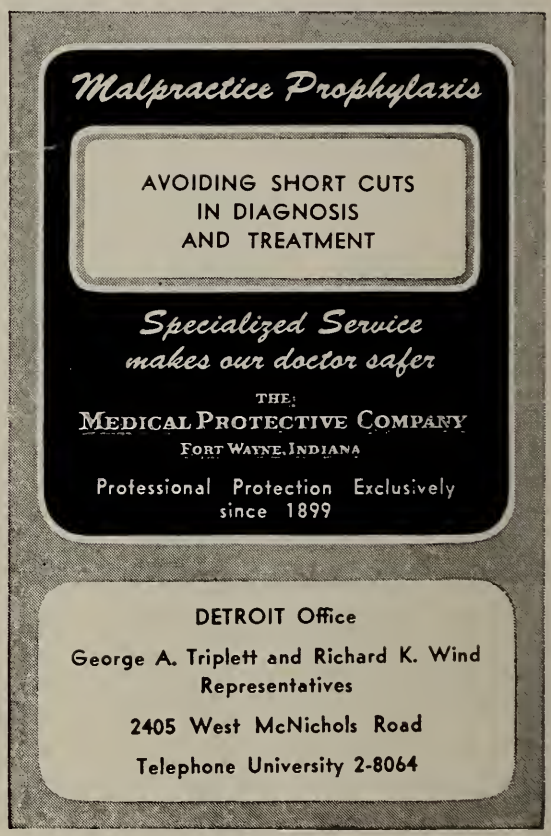
1. The first visit to follow-up on a request for consultation with reference to a suspected hospital infection problem will be made by the Chief of the Acute Communicable Disease Section, or his designated representative.
2. Since each situation is likely to differ, the procedure to be followed will be determined at the time of the first visit.
3. Other department personnel involved will be directly responsible to the physician in charge (Chief of the Acute Communicable Disease Section) and available on his request.
4. All reports, findings, and recommendations will clear through the physician in charge (Chief of the Section of Acute Communicable Disease) before release.
5. The physician in charge (Chief of the Section of Acute Communicable Disease) will keep all interested persons involved informed as early as convenient.
6. Requests will be honored from both the hospital and the local health department. If the request originates with the hospital, the local health department will be informed.
7. All releases of information to the public will ordinarily be the sole responsibility of the hospital administrator. Exceptions to this policy will be made only by the State Health Commissioner.

Franking Privilege Withdrawn

In the past to facilitate and expedite the collection of vital records, and communicable disease morbidity reports, the federal government has allowed state and local health departments the use of penalty mail (franking privilege). However, as of July 1, 1958, this privilege has been withdrawn and, as a result, physicians are no longer permitted to use postcards, envelopes or labels carrying the franking privilege for sending case reports of communicable disease to either the local or the state health departments.

All full-time local health officers in Michigan have been instructed to pick up all such postcards, envelopes or labels so that they cannot be used after June 30, 1958. Methods of collecting communicable disease morbidity records in local areas will have to be worked out by the local health officers so that communicable disease reporting by private physicians can be maintained at the current level.

The state health department will supply local registars of vital records and local health officers with business reply labels which they can use in transmitting vital records and communicable disease morbidity reports to the Michigan Department of Health.



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Raudixin helps you relieve pressures in your patients

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In mild to moderate cases, Raudixin is frequently sufficient.

Base line therapy with Raudixin permits lower dosage of more toxic agents. The incidence and side effects of these agents are minimized. Diuretics often potentiate the antihypertensive effect of Raudixin.

*Finnerty, F. A. Jr.: New York State J. Med. 57:2957 (Sept. 15) 1957.

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In Memoriam

CHARLES S. BALLARD, M.D., seventy-nine, Detroit eye, ear, nose and throat specialist, died May 17, 1958. Dr. Ballard was a Detroit area resident for 34 years. He was a native of Kansas. Memberships included Acacia Lodge, F. and A.M., and the Riverside Kiwanis Club.

CHARLES W. BRAYMAN, M.D., Cedar Springs physician, died May 1, 1958.

A native of Custer, Michigan, Dr. Brayman moved to Ludington as a child and graduated from the Ludington High School, after which time he came to Grand Rapids Medical College. He graduated from medical school in 1902 and came to Cedar Springs where he established his practice.

A leader in community affairs, Dr. Brayman was honored as the "Citizen of the Year" in 1949. He was charter member and past president of the Cedar Springs Rotary Club. He also served on the village council and was chairman of the cemetery board for many years.

Dr. Brayman was a Life Member of the Kent County Medical Society.

NEAL J. McCANN, M.D., fifty-eight, former Marquette physician, passed away recently in California, according to a belated notice just received. Dr. McCann was born in Tacoma, Washington, July 1, 1899. He acquired a pharmaceutical degree from Creighton University before taking his medical education at Loyola University, Chicago, a member of the class of 1927. Dr. McCann began his practice in Ishpeming, Michigan, in 1933, moving to Marquette in 1945. In 1951, he moved to Torrance, California, where he practiced until his retirement due to illness in 1955.

Dr. McCann was very active in the medical field. He was a past president of the Upper Peninsula Medical Society.

DAN R. HERKIMER, M.D., sixty-two, Lincoln Park physician, died May 14, 1958. A native of Maybee, Michigan, he attended Eastern Michigan College and the University of Michigan before enrolling in Wayne University College of Medicine. He earned his medical degree in 1926 and came to Lincoln Park the following year.

In 1930, he was named City Health Officer, a post he held continuously until the United States entered the second world war. Dr. Herkimer had served in the Navy in World War I, and in 1942, he re-entered active service as a lieutenant-commander in the Navy Reserve. After the war, he remained in the reserve, and in 1952 was elevated to the rank of captain.

Dr. Herkimer was a member of Wayne County Medical Society, Michigan State Medical Society, the American College of Surgeons, Detroit Athletic Club, Military Order of World Wars and the Lincoln Park Post, American Legion.

MAX STEINER, M.D., fifty-one, Detroit physician, died April 29, 1958. Dr. Steiner was graduate of the Wayne University College of Medicine, class of 1934. He served in the U. S. Army in World War II, as a captain. He was a member of the Wayne County Medical Society, Maimonides Medical Society, Phi Lambda Kappa Medical Fraternity and a Diplomate of the American Board of Psychiatry.

JOSEPH WADDINGTON, M.D., ninety-three, Detroit physician, died May 11, 1958. Dr. Waddington was one of Detroit's oldest practicing physicians. His yen to travel carried him to nearly every foreign land. In the last seven years, he made seven trips around the world. He had planned to visit Tahiti next month. Dr. Waddington was born in Manchester, England, coming to the United States in 1884. and was a graduate of the Indiana College of Medicine.

RANDALL A. WHINNERY, M.D., forty-six, a Grosse Pointe Park physician, died May 27, 1958.

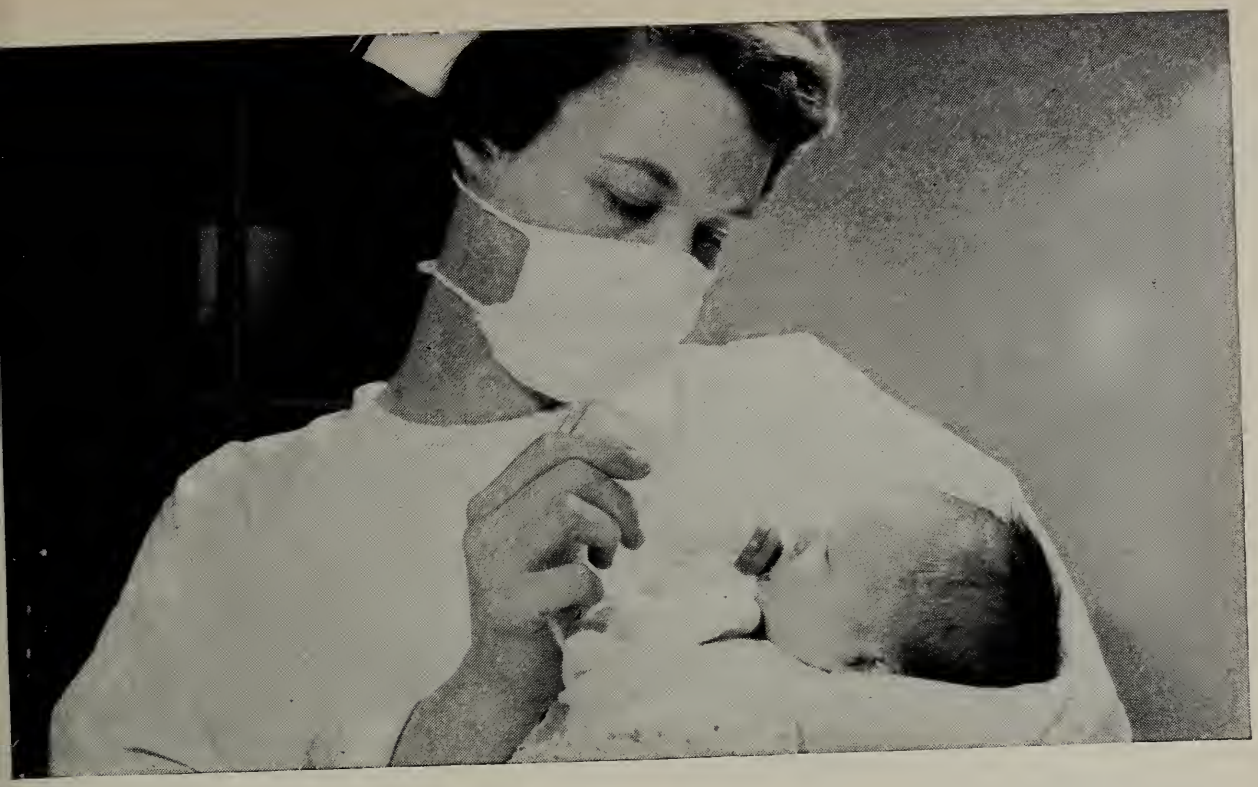
Dr. Whinnery was on the staffs of Harper and Florence Crittendon hospitals and had been assistant chief of staff of the McGregor Health Foundation since 1945.

He was a fellow of the American College of Physicians and a member of the American Board of Internal Medicine, as well as a member of other medical groups and of the Detroit Boat Club.

TV JINGLES PLUG GOOD HEALTH

Well-known nursery rhyme characters like Humpty Dumpty and Jack and Jill helped to sell the idea of healthful living to many American families during 1957. Some fifty-four counties in twenty-six states sponsored the AMA's twenty-second animated cartoon health spots last year, reports the Bureau of Health Education. These jingles were shown over local television stations in such metropolitan areas as Los Angeles, Denver, San Francisco, Miami, Chicago, Louisville, Detroit, Kansas City, Tulsa, Cincinnati, Providence, Memphis, Milwaukee and Houston. Health subjects covered in the ten-program series include treatment of colds, road safety, isolation, careful use of pointed toys, cold prevention, first aid, long life, diet, balanced meals and food preservation.

Each set of spots is "personalized" with the name of the county or state medical society on both the visual and auditory film track. The series still is available to local medical societies—at no charge—by requesting order blanks from the Bureau of Health Education.



Hospital practice of infant feeding

Standard formulas for FEEDING REGULATION

Underfeeding is a common cause when infants fail to gain and thrive. In the earliest stage, when caloric intake is inadequate, the infant cries after feeding, remains constipated, and the restlessness from hunger is mistaken for colic. A changed or weakened formula appears to be indicated.

But clinical studies show that a young infant requires a formula of 2 ounces of whole milk (40 calories), a teaspoon of Karo Syrup (15 calories), and a half-ounce of added water *per pound of body weight per day.* Of the total calories, a successful formula yields about 15-20% in protein, 50-60% in carbohydrate, and 25-35% in fat. Whole milk must be reinforced by adding 5% to 10% carbohydrate (1) to provide protein-sparing effect which permits protein anabolism instead of energy production; (2) sufficient calories for tissue formation; (3) proper utilization of fat; (4) suitable acid-base relationships in the intestinal tract and (5) adequate weight gains.

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Age Months	Whole Milk Fluid Oz.	Water Oz.	Karo Syrup Tbsp.	Each Feeding Oz.	Number of Feedings in 24 Hours	Total Calories
Birth	10	10	2	3	6	320
1	12	13	3	4	6	532
2	15	13	3	4½	6	480
3	17	9	3	5	5	520
4	20	11	3½	6	5	610
5	23	11	4	6½	5	700
6	26	10	4	7	5	760

EVAPORATED MILK FORMULAS

Age Months	Evaporated Milk Fluid Oz.	Water Oz.	Karo Syrup Tbsp.	Each Feeding Oz.	Number of Feedings in 24 Hours	Total Calories
Birth	6	12	2	3	6	380
1	8	16	3	4	6	532
2	9	14	3	4½	5	576
3	10	15	3½	5	5	650
4	12	18	4	6	5	768
5	12	21	4	6½	5	768
6	13	22	4	7	5	812

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. NEWS MEDICAL

MICHIGAN AUTHORS

Fred Holtz, M.D., and **Lewis A. Schmidt, III, M.D.,** Ann Arbor, are the authors of an article entitled, "Lymphoid Polyps (Benign Lymphoma) of The Rectum and Anus," published in *Surgery, Gynecology and Obstetrics,* June, 1958.

Robert I. McClaughry, M.D., Detroit, is the author of an article entitled, "Responsibility of Hospitals in Graduate Medical Education," read before the Association of Hospital Directors on Medical Education, Chicago, February 8, 1958, and published in the *Journal of the American Medical Association,* May 31, 1958.

Arthur C. Curtis, M.D., and **Donald S. Schuster, M.D.,** Ann Arbor, are the authors of an article entitled, "The Laboratory Diagnosis, Biology, and Treatment of Latent Syphilis," read before the Eleventh International Congress of Dermatology, Stockholm, July 31, 1957, and published in the *Journal of the American Medical Association,* May 31, 1958.

Frederick C. Swartz, M.D., F.A.C.P., Lansing, is the author of an article entitled, "Medical Education for Gerontology," published in the *Maryland State Medical Journal,* April, 1958.

John W. Keyes, M.D., and **Franz J. Berlacher, M.D.,** Detroit, are the authors of an article entitled, "Chlorothiazide (Diuril) A New Non-Mercurial Oral Diuretic," published in *Henry Ford Hospital Medical Bulletin,* March, 1958.

John R. Caldwell, M.D., and **Roy J. Karjala, M.D.,** Detroit, are the authors of an article entitled, "Chlorothiazide As An Adjunct in the Treatment of Hypertensive Cardiovascular Disease," published in *Henry Ford Hospital Bulletin,* March, 1958.

C. P. Hodgkinson, M.D., Detroit, is the author of an article entitled, "Effect of Violent Exercise on Fibrinogen Level," published in the *Henry Ford Hospital Medical Bulletin,* March, 1958.

John S. DeTar, M.D., Milan, is the author of an article entitled, "The Generalist and the Specialist," published in the *Pennsylvania Medical Journal,* May, 1958.

Robert N. Lehmann, M.D., Cameron Morrison, M.D., Alvin Rutner, M.D., Charles J. Koucky, M.D., and **Gerald S. Wilson, M.D.,** Detroit, are the authors of an article entitled, "Cancer of the Stomach," read at the sixty-fifth annual meeting of the Western Surgical Association, Salt Lake City, November 21, 1957, and published in *A.M.A. Archives of Surgery,* May, 1958.

Leonard P. Heath, M.D., Detroit, is the author of an article entitled, "Delayed Post-Partum Hemorrhage," presented at the twenty-fourth annual meeting of the Central Association of Obstetricians and Gynecologists, October, 1956. New Orleans, Louisiana, and at the sixty-first annual meeting of the Sioux Valley Medical Association. February, 1957, Sioux City, Iowa, and published in the *South Dakota Journal of Medicine and Pharmacy,* May, 1958.

E. S. Gurdjian, M.D., J. E. Webster, M.D., W. G. Hardy, M.D., and **D. Lindner, M.D.,** Detroit, are the authors of an article entitled, "Surgical Considerations in the Management of Cerebrovascular Disease," presented at the Symposium of Peripheral Vascular Disease co-sponsored by the Minnesota Heart Association and the Mayo Foundation, Rochester, Minnesota, September 25, 1957, and published in *Minnesota Medicine,* May, 1958.

C. Byron Landis, M.D., Ann Arbor, is the author of an article entitled, "Experience with Cyclodiathermy at the University of Michigan," published in *University of Michigan Medical Bulletin,* April, 1958.

Darrell A. Campbell, M.D., Ann Arbor, is the author of an article entitled, "A Historic Case of Cynanche Trachealis," published in the *University of Michigan Medical Bulletin,* April, 1958.

Saul Sugar, M.D., Detroit, is the author of an article entitled, "Diagnosis of the Commoner Glaucomas," published in the *Journal of the International College of Surgeons,* and digested in *Digest of Ophthalmology and Otolaryngology,* January, 1958.

Wallace W. Tourtellotte, Ph.D., M.D., Russell N. DeJong, M.D., and **Wiecher H. Van Houten, M.D.,** Ann Arbor (now of Groningen, The Netherlands), are the authors of an article entitled, "A Study of Lipids in the Cerebrospinal Fluid. I. The Historical Aspects," published in the *University of Michigan Medical Bulletin,* March, 1958.

Thomas T. Callaghan, M.D., Detroit, is the author of an article entitled, "Pancreatic Pseudocysts," read before the Detroit Academy of Medicine, November, 1957, and published in *Harper Hospital Bulletin,* March-April, 1958.

Kenneth Ranney, M.D., and **Byron Berglund, M.D.,** Detroit, are the authors of an article entitled, "Fetal Salvage from Cesarean Sections at Harper Hospital," published in *Harper Hospital Bulletin,* March-April, 1958.

Jan Nyboer, D.Sc., M.D., and **Rodney Willard, M.D.,** Detroit, are the authors of an article entitled, "I. Initial Ultra-Frequency Ballistocardiographic Complexes in

(Continued on Page 1042)

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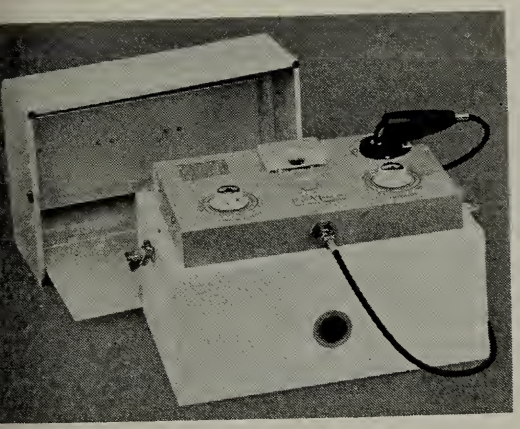
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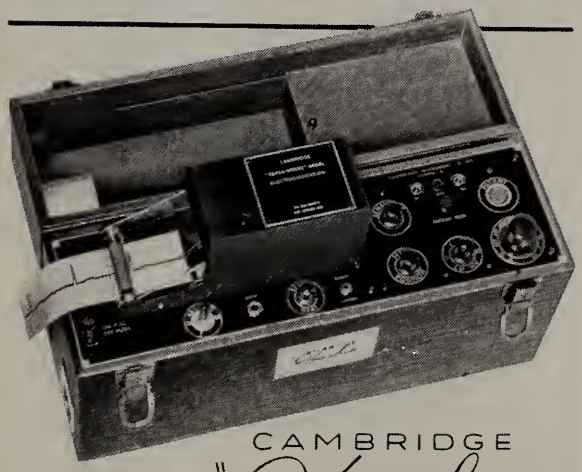
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(Continued from Page 1040)

Major Arterial Obstruction—Case Report," published in *Harper Hospital Bulletin,* March-April, 1958.

Jan Nyboer, D.Sc., M.D., Detroit, is the author of the following articles, "II. Comparison of Ultra-Frequency and Direct Ballistocardiograms" and "III. Constant Mass Ultra-Frequency Ballistocardiograms—Family Series" published in *Harper Hospital Bulletin,* March-April, 1958.

Raymond Mellinger, M.D., Bernard Therian, Ph.D., Irene T. Kline, Ph.D., John Ditzler, M.D., Roger Smith, M.D., and **Gerald Fine, M.D.**, Detroit, are the authors of an article entitled, "Primary Aldosteronism —Department of Medicine—Symposium," published in *Henry Ford Hospital Medical Bulletin,* March, 1958.

J. Reimer Wolter, M.D., Ann Arbor, is the author of an article entitled, "Secondary Degeneration of the Human Retina," published in *A.M.A. Archives of Ophthalmology,* May, 1958.

* * *

M. K. Newman, M.D., Detroit, delivered an address at the Annual Meeting of the Muscular Dystrophy Association of America, Toledo, Ohio, at the Toledo Academy of Medicine on May 21, 1958. The title of the talk was, "The Functions of a Muscular Dystrophy Clinic, and General Management of the Muscular Dystrophy Patient."

* * *

Carcinogenic Factors.—Traffic problems and air pollution of large cities are not factors causing cancer, according to a University of Michigan surgeon, who summarized the latest information on this disease in a recent radio interview.

Daniel C. Hunter, M.D., of the University's Department of Surgery, related that a statistical study of New York City showed the same incidence of cancer there as in agricultural areas.

Dr. Hunter said that smokers seem to be involved in the problem of cancer. "The tobacco industry objects to the claim that cigarettes have anything to do with cancer," he stated. However, it appears that heavy smoking can cause coughing or bronchitis. "This is a point of irritation and with chronic irritation we may expect a certain number of cancers will be involved," he said.

One in every seven persons become involved with some type of cancer, Dr. Hunter explained. The specific cause is unknown, but researchers are aware that some types arise from cells present during the development of the fetus. According to this theory, these remain in a resting state until they receive a stimulus to growth and become malignant. It also has been shown that there are certain inherited conditions which may develop into cancer, although the factor of heredity is not a prominent one.

Other research noted by the surgeon was that in certain areas of the world, where highly seasoned foods are eaten, there is an increased number of stomach cancers while lung cancer is fairly common in a region of the

(Continued on Page 1044)

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Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

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(Continued from Page 1042)

Austrian Alps where cobalt is mined. Irritation thus seems to be a significant factor in the disease, he emphasized.

The radio program, "Prescription for Health," was produced by U-M Broadcasting Service and was heard on FM stations, WUOM, Ann Arbor, and WFUM, Flint. William Stegath, WUOM production director, was host for the program, which will be re-broadcast throughout the state.

* * *

The Department of Health, Education, and Welfare announces that in June there will be published the third annual volume of the *Bibliography of Medical Reviews*. Review articles listed in Volume 1 and 2 were gathered as a by-product of the *Current List of Medical Literature* operation. Volume 3, however, extends its collection of review articles to all of the current journals received by the National Library of Medicine. Copies of Volume 3 for 1958 will be available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at a price presently estimated at $1.25.

* * *

E. J. Hammer, M.D., Grosse Pointe Park, Michigan, has just returned from Davos-Parsenn, Switzerland, where he was one of three American speakers on the program of the Third International Congress of Skiing Traumatology and Winter Medicine. The subject of his paper was, "Ski Injuries in the United States. Their Causes and Prevention."

* * *

Charles A. Neafie, M.D., Pontiac, who for forty years has been a Health Officer in Pontiac, received on May 8, 1958, from the Michigan Health Officers Association Conference in Detroit, a Distinguished Health Service Award. Dr. Neafie is a past secretary and president of the Oakland County Medical Society. He is also a former member of the Council of the Michigan State Medical Society. The Michigan Health Officers Association also made Dr. Neafie "President for a Day" of the Michigan Health Officers Association.

* * *

The Coller-Penberthy Medical Conference will be held in Traverse City, Michigan, on Thursday and Friday, July 24 and 25, 1958 at the Park Place Hotel.

* * *

The American Otorhinologic Society for Plastic Surgery will have a meeting at Mexico City and Acapulco, February 15 through 30, 1959; also a meeting at the Conrad Hilton Hotel, Chicago, on October 12, 1958.

* * *

Prize Essay from Wayne.—One of the most distinguished honors for senior medical students has been won by a Wayne State University College of Medicine senior. Daniel S. Elman was named first place winner of the tenth annual Senior Medical Student Prize Essay Contest of the New England Journal of Medicine. His prize was $150 and publication of his paper in

(Continued on Page 1046)

*

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(Continued from Page 1044)

the JOURNAL sometime this summer. His topic was "Familial Association of Nerve Deafness with Nodular Goiter and Thyroid Carcinoma."

Elman is the son of Mr. and Mrs. Abraham Elman, Detroit. While studying for his B.A. degree at Wayne State, he was elected to Phi Beta Kappa. He will intern at Sinai Hospital following graduation in June.

* * *

John S. DeTar, M.D., Milan, was one of the speakers at the 1958 Annual Meeting of the State Medical Society of Wisconsin, held in Milwaukee on May 6, 7 and 8. His topic was "Cancer Detection in the Office of the Generalist." Dr. DeTar is past president of the American Academy of General Practice.

* * *

Northeastern Surgical Conference.—The fourth annual Northwestern regional meeting of the International College of Surgeons will be held in the Equinox House, Manchester, Vermont, June 30 through July 5.

The scientific program will include a paper to be presented by Earl Carl, M.D., of Lansing, Michigan, entitled, "The Surgeon's Role in Traffic Liabilities."

* * *

The Detroit Surgical Society announces the new officers and Council members for 1958 as follows: past president, Wm. S. Carpenter, M.D.; president, D. W. McLean, M.D.; president-elect, John Reed Brown, M.D.: secretary, Edward M. Vardon, M.D.; treasurer, Edward J. Shumaker, M.D.; audit control officer, Donald N. Sweeney, Jr., M.D.; Council: Harry C. Saltzein, M.D.; Fred G. Hicks, M.D.; Alfred M. Large, M.D.; Charles E. Darling, M.D., and Raphael Altman, M.D.

* * *

Leonard K. Eaton, assistant professor in the College of Architecture and Design, has issued a book entitled "New England Hospitals 1790-1833," published by the University of Michigan Press. In 1790, few New Englanders had ever seen a hospital. Professor Eaton says:

"Today when the relations of the hospital to the state and to society at large are the subject of much discussion in the press, on the radio and on television . . . In this early period the hospital was, as it is in our time, an institution devoted to healing the sick, a center of research and administrative struggle and growth."

* * *

Applications for certification (American Board of Obstetrics and Gynecology), new and reopened, Part I, and requests for re-examination Part II are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline date for receipt of applications is September 1, 1958. No applications can be accepted after that date. It should be noted by prospective candidates that the deadline date will be August 1, in 1959.

Candidates are requested to write to the office of the Secretary for a current Bulletin if they have not done so in order that they might be well informed as to the present requirements. Application fees

(Continued on Page 1048)

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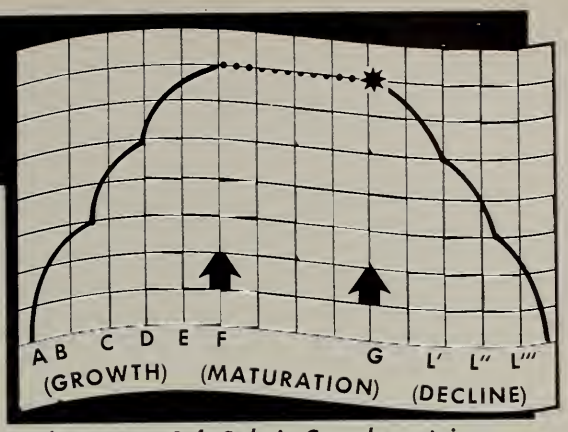
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*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

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(Continued from Page 1046)

($35.00), photographs, and lists of hospital admissions must accompany all applications, and should be addressed to ROBERT L. FAULKNER, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

The United States Atomic Energy Commission on June 4, announced the awarding of sixty-one unclassified physical research contracts to colleges, universities and private research institutions. The contracts total $3,508,555. Seven are new and the remaining fifty-four are for continuation of research already under way.

The contracts are awarded as a part of the Commission's continuing policy to assist and foster research related to atomic energy. Research costs usually are shared by the institutions and the Commission.

Five of the contracts were awarded to the University of Michigan as follows: (1) "Low Temperature Chemical Thermodynamics," E. F. Westrum, Jr., $18,950, (2) "Polarographic Behavior of Organic Compounds," P. J. Elving, $17,025, (3) "Experiments on the G-Factor of the Free Electron and the Polarization of Electrons in Scattering," R. W. Ridd, $27,300, (4) "Nuclear Research with 300 mev Synchrotron," R. W. Ridd, $48,800 and (5) "Fundamental Research on Isotope Reactions," R. B. Bernstein, $30,000.



The Werle-Bennett graduate fellowship has been established by the Michigan Tuberculosis Association to encourage careers in the fields of tuberculosis and public health and to provide opportunities for advanced training in these fields. The grant provides up to $2,500, including one year's tuition, for the selected applicant.

Requirements for application include Michigan residence, a bachelor's degree from a recognized college or university, eligibility for admission to the University of Michigan School of Public Health, and a desire to continue in the field of TB or public health after graduation. Application forms are obtainable from the Michigan Tuberculosis Association, 403 Seymour Avenue, Lansing 14, Michigan.

The annual fellowship was adopted in a resolution of the Board of Trustees in recognition of the leadership of Theodore J. Werle, retired MTA Executive Secretary, and Harry D. Bennett, MTA treasurer, for the past thirty-six years.

MICHIGAN TUBERCULOSIS ASSOCIATION

* * *

Small Pox Eradication.—The USSR claims to have wiped out smallpox, according to their delegation at the World Health Assembly in Minneapolis. WHO,

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World Health Organization, has listed smallpox to have top priority on global elimination. There have been no cases of smallpox reported since 1954 in the United States or any Central American republic. The disease continues to be a problem in five South American countries.

* * *

Polio Vaccine.—The American Medical Association, the National Foundation for Infantile Paralysis and the United States Public Health Service, are again urging to the public that every person under forty be vaccinated against polio. All three shots are recommended. To date, May 23, 49 millions have received the full course of three injections and 46.5 million have received none. President Eisenhower has "heartily endorsed" this program. Polio is another disease which could be eliminated.

* * *

Military Internships.—During the Fiscal year, 1959, which begins July 1, 1958, a total of 178 Army interns, representing sixty-seven medical schools throughout the United States, will begin a one-year rotating type internship at ten Army hospitals. In addition to the varied clinical material available to Army interns at each of the hospitals, the Army's newest constructed hospitals at Fort Bragg, North Carolina and Fort Benning, Georgia, exemplify the most recent technical and architectural advancements.

Army intern training provides each intern with an exceptional opportunity to obtain experience and professional growth. The program has been designed to meet all requirements of the Council on Medical Education and Hospitals of the American Medical Association.

Following is a list of the Michigan students:

Fitzsimons Army Hospital, Denver, Colorado; Neill S. Cooper, Jr., RFD No. 3, Plattsburg, New York, University of Michigan; Letterman Army Hospital, Presidio of San Francisco, California; John H. Reed, Jr., 22913 Colony, St. Clair Shores, Michigan, Wayne State University; U. S. Army Hospital, Ft. Benning, Georgia; John E. Wygmans, 123 East Elm Street, Lansing, Michigan, University of Michigan; U. S. Army Hospital, Ft. Bragg, N. C.; Richard A. Pollard, 809 Lawrence Street, Ann Arbor, Michigan, University of Michigan.

* * *

Drug Advertising.—The Federal Trade Commission has issued orders prohibiting three well-advertised makers of proprietary remedies from representing that certain of their products are effective treatments for arthritis, rheumatism and related diseases. The companies involved are the manufacturers of "Omega Oil," "Mentholatum Deep Heat Rub," "Infra Rub" and "Heet." Advertising claims for relief of minor aches are permitted, but representations that the oils, salves,



In a recent 140-patient study[1] DIMETANE gave "more relief or was superior to other antihistamines," in 63, or 45% of a group manifesting a variety of allergic conditions. Gave good to excellent results in 87%. Was well tolerated in 92%. Only 11 patients (8%) experienced any side reactions and 5 of these could not tolerate any antihistamines.

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1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

et cetera, have any beneficial effect below the skin surface are forbidden. *WRMS*, May 19, 1958.

* * *

"Swimmer's Itch."—The Michigan Department of Health and the University of Michigan Museum of Zoology have combined efforts in a battle against snails carrying parasites which cause "swimmer's itch." This is very common in the Upper Peninsula but has appeared also on the beaches of the Lower Peninsula. There are two problems evident: (1) biological research on the mollusk vectors and (2) extermination of the snail. The infection in Egypt has been most severe for many years. There, humans carry the larvae worms, but ducks and birds deposit the eggs in water, the snails are the carriers and the larvae burrow under the skin causing an intensly uncomfortable rash.

It is hoped that the University of Michigan research will further the search for a remedy.

* * *

McGregor Memorial Conference Center.—Wayne State University, on Sunday, May 18, 1958, opened the doors of the new McGregor Conference Center to help highlight the University's ninetieth Alumni Reunion weekend. This building, a gift of the McGregor Foundation, has been under construction since December, 1956. The white marble building was designed by Detroit architect, Minoru Yamasaki (the same man the Michigan State Medical Society has engaged to design its new Headquarters Building).

The McGregor Center is the third of four buildings comprising the Community Arts Block. Already in use are the Music and Arts Buildings, while the combination Auditorium, Alumni House and President's home is still under construction.

* * *

The AMA PR Doctor Bulletin for May, has a box on page 6 reading as follows:

The Mediation Committee of the Wayne County (Detroit) Medical Society found that *fee complaints are less likely to arise from the size of the fee than from the doctor's failure to explain his services.* Out of fifty-six grievance committee cases, only three stemmed from the patients' belief that the fees themselves were unreasonable. Half of the total cases were settled by a simple explanation of what the physician had done to warrant the charge. "How much more satisfactory if the explanations had come from the physician rather than the committee," concluded Dr. Luther Leader, committee chairman.

* * *

New Internal Revenue Ruling.—Physicians who are full-time employes of hospitals are subject to a new ruling by the Internal Revenue Department. Where the patient writes a check to the doctor direct, the doctor may endorse it over to the hospital and thus may be excused from including the sum as income. He must attach a schedule of his tax return setting forth sources of the fees, amounts received and disposition thereof.

* * *

Medicare Costs (May, 1958).—The appropriations committee of the House of Representatives reported that as a result of their investigation of Medicare,

(Continued on Page 1052)

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(Continued from Page 1050)

maternity cases were the most popular Medicare service and they averaged $224. Respiratory infections averaged $164, and appendectomies averaged $335. In maternity cases, the costs between the hospital and the doctor were almost equal. Costs of processing claims ranged from $3 to more than $11 per claim.

* * *

Utilization.—There was a 35 per cent increase in the average patient load of service men's dependents in military and civilian hospitals in 1957 as compared to the same period of 1956.

* * *

The Michigan State Society of Clinical Hypnosis will be organized as a branch of the American Society of Clinical Hypnosis at a meeting on Tuesday, September 30, Sheraton-Cadillac Hotel, Detroit, 7:30 p.m. All physicians who use hypnosis in their practice, those interested in doing so, and other M.D.'s desirous of joining the Society, will be welcomed. Reservations may be made by contacting Ralph V. August, M.D., 72 East Broadway, Muskegon Heights, Michigan.

* * *

The Academy of Psychosomatic Medicine will hold its fifth annual meeting at the Park Sheraton Hotel, New York, October 9-11, 1958. For program and information write Bertram B. Moss, M.D., 1035-55 East Washington Street, Chicago 2, Illinois.

What They said About the 1958 Michigan Clinical Institute:

M. J. Franzblau, M.D., University of California Hospital, San Francisco (guest): "As a native of Michigan I was justly proud of the program presented at your Michigan Clinical Institute. The amount of planning that went into the production of the conference was most evident. It is always nice to return home and I hope to participate in your future programs, soon and frequently."

* * *

Anthony T. Wachna, M.D., Windsor, Ontario, (guest): "Once again the Michigan Clinical Institute was excellent and greatly appreciated. Personally I should like to express my appreciation of the hospitality of your Society and hope that we in Ontario can reciprocate in similar manner."

* * *

Ford Motor Company has constructed two new medical units at its Rouge Plant, to replace the thirty-two-year-old hospital in the "B" building. The first Rouge Hospital was established in 1918 in a farm house purchased with the land when the Rouge was being built. The original staff was composed of four physicians and one extern.

The two new units have a combined floor space of 24,700 square feet with fifty-four separate rooms for examination, et cetera, in addition to doctors' offices, waiting rooms and all other standard facilities for emergency treatment. A staff of thirteen physicians and one



dentist, as well as registered nurses, first aid attendants and laboratory technicians are manning the two new hospitals.

* * *

Gordon B. Myers, M.D., Detroit, has been appointed head of the new Wayne State University Service in Internal Medicine at Harper Hospital, Detroit.

* * *

Jerome W. Conn, M.D., Ann Arbor, presented the Banting Memorial Lecture at the 18th Annual Meeting of the American Diabetes Association in San Francisco on June 21. The lecture is named in honor of Sir Frederick G. Banting, co-discoverer of insulin. Dr. Conn's presentation was titled "The Pre-Diabetic State in Man: Definition. Interpretation and Implication."

* * *

The American College of Obstetricians and Gynecologists invites all residents in hospitals to prepare original papers on either clinical or research material, to win the College Award including presentation of the winning paper at its French Lick meeting of September 25 to 27, 1958. Deadline date is September 1. Manuscripts may be forwarded to Charles F. Gillespie, M.D., 3400 N. Meridian St., Indianapolis 8, Indiana.

* * *

The Michigan Proctologic Society elected the following officers for the current year: President Joseph W. Becker, M.D., Detroit; President-elect Donald J. Pearson, M.D., Battle Creek; Secretary Guy W. Deboer, M.D., Grand Rapids; Treasurer Martin C. Sharp. M.D., Saginaw.

The Cyrus C. Sturgis Internists Club has elected H. M. Pollard, M.D., and Robert J. Bolt, M.D., Ann Arbor, as executive vice president and secretary-treasurer, respectively.

The club consists of doctors throughout the United States who have trained in internal medicine at the University of Michigan; they meet annually during the national assembly of the American College of Physicians.

* * *

A. D. Ruedemann, Sr., M.D., Detroit, has been elected president of the Detroit Ophthalmological Society.

* * *

"M.D. International" and "Monganga," the two latest March of Medicine television reports on the work of American physicians have been selected for presentation at the Brussels World Fair by the World Fair Film Selection Committee of which Charles F. Schwep is chairman. Both of these medical documentaries were produced and sponsored by Smith Kline & French Laboratories of Philadelphia in co-operation with the American Medical Association.

* * *

Dr. Simon Levin, Houghton, was honored by the Houghton Rotary Club on May 3 "for his great worth to the community over many years of sacrificing service."

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in modern terms on the basis of known historical data are made of Nero, Cesare Borgia, Genghis Khan, Rasputin, John Wilkes Booth, Catherine the Great, Cagliostro and Robespierre. The diagnoses make interesting reading.

* * *

The Arthritis and Rheumatism Foundation offers predoctoral, postdoctoral and senior investigatorship awards in the fundamental sciences related to arthritis for work beginning July 1, 1959. Deadline for application is October 31, 1958. Predoctoral fellowships stipends range from $1500 to $3000 per year; postdoctoral fellowships from $4000 to $6000 per year; senior investigator awards from $6000 to $7500 per year tenable for five years. For full information write the Medical Director of the Foundation at 10 Columbus Circle, New York 19, New York.

* * *

Fredrick A. Coller, M.D., Cyrus C. Sturgis, M.D., and **Ruth C. Wanstrom, M.D.,** were honored at a testimonial dinner in Ann Arbor on June 10 when 237 members of the Medical School Faculty and guests recognized their many years of service to the University of Michigan and to Medicine. Scrolls were presented to these three retiring members of the medical school faculty; addresses were made by University President Harlan Hatcher, Regent C. S. Kennedy, M.D., and Dean A. C. Furstenberg, M.D.

CORRECTION

The picture on page 643 of the May issue of THE JOURNAL which is labelled as that of Dr. Julius Bauer of Los Angeles, California, is actually that of Dr. William Dameshek of Boston, Massachusetts. The Editor regrets this error and wishes to thank the several very observant persons who called this to his attention.

CORRECTION

In the News Medical section of the May issue of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, through some error the name of the senior author was omitted. This notification should have read: "Stephen J. Figiel, M.D., Leo S. Figiel, M.D., and Desmond K. Rush, M.D., of Detroit, are the authors of an original article entitled, 'Study of the Colon by Use of High Kilovoltage Spot Compression Techniques,' which was published in *The Journal of the American Medical Association,* March 15, 1958. This paper was presented before the section of Radiology at the 106th Annual Meeting of the American Medical Association in New York in June, 1957, by the senior author, Stephen J. Figiel."

MEDICAL TELEVISION SHOWS

Shows produced by Michigan Health Council over WJBK-TV, Detroit: May 4—Nutrition (Film—"Food Facts and Fads"); May 11—Career in Pharmacy (Guests: Stephen Wilson, Dean, Marilyn Houck and John Van Blarcom, University of Michigan Students, and Don Hall of Kalamazoo); May 18—Emergency Care (Film—"Hospital Emergency Care").

Legal Opinion

Dear Dr. Secretary:

At the request of the Council of the Michigan State Medical Society, I have given attention to the matters raised in your letter of March 7, 1958, and the attached correspondence.

As I understand the matter, the basic facts are as follows. The doctor is requested to interpret electrocardiograms for a laboratory which is largely owned and wholly directed by nonmedical individuals. The doctor would be paid a set fee for each interpretation and the reports would be sent to the physician requesting the examination on the stationery of the laboratory. The patients would be billed by the laboratory and, presumably, the laboratory would profit to the extent of the difference between the fee paid by it to the doctor and the fee charged by it to the patient. I understand further that there is no direct medical supervision with respect to any of the procedures of the laboratory which is operated on a purely commercial basis.

In my opinion, the suggested procedure would be unethical on the part of the doctor. Prior to the recent revision of the Principles of Medical Ethics of the American Medical Association, Section 5 of Chapter VII of the Principles read as follows:

> "A physician should not dispose of his professional attainments or services to any hospital, lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit exploitation of the services of the physician for the financial profit of the agency concerned. Such a procedure is beneath the dignity of professional practice and is harmful alike to the profession of medicine and the welfare of the people."

Although, under the Statement of Principles as revised in 1957, the above quoted specific language does not appear. I think it was not intended that any different view be taken of the lack of propriety existing in the purveyal of medical service under circumstances which permit exploitation of the services of a physician to the financial profit of a lay organization.

Whether or not the proposed practice might be said to be illegal as distinguished from the ethical question involved is, at least, doubtful. The Medical Practice Act of Michigan provides that the Board of Registration in Medicine may refuse to issue or may revoke a certificate of registration for "unprofessional and dishonest conduct" as defined in the Act. Among the defined acts of unprofessional conduct is "connection with, or lending one's name to, an illegal practitioner of medicine." Whether the lay agency involved would be regarded as practicing medicine under the circumstances above outlined, is at least questionable and, while I do not express the opinion that illegal practice is involved, it is my opinion that, under the circumstances set forth, the suggested procedure would be of doubtful legality.

LESTER P. DODD
Legal Counsel

Lansing, Michigan
April 15, 1958



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Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

THE HEBREW MEDICAL JOURNAL Semi-annual publication, Moses Einhorn, M.D., Editor. Volume I and II, 1957 (Anniversary Year). The Hebrew Medical Journal, 983 Park Avenue, New York 28, New York.

The *Hebrew Medical Journal* this year is celebrating its Thirtieth anniversary of continuous publication. It is written in Hebrew with English summaries, the journal has played an important part in the creation of a medical literature and terminology in the language of the Bible. The journal is now issued in two volumes for the year, books of approximately 200 pages containing very well presented, well selected articles.

THE CHANGING PATIENT-DOCTOR RELATIONSHIP. Martin G. Vorhaus, M.D., F.A.C.P. Drawings by A. Birnbaum. New York: Horizon Press. Price, $3.95.

The problem of presenting to the lay reader the complexities of the diagnosis and treatment of psychosomatic illness in simple everyday terms, is a challenge not easily denied. In this book, the approach is one of analysis of the patient-physician relationship with the



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This analysis is presented in chapters entitled: "The Patient—How he became one," "The Patient—What he was before he became one," "The Doctor—Why he became one," and "The Doctor—Builder of Bridges." These chapters include comments, examples, and many direct quotations that will be familiar and interesting to the practicing physician. Though the case histories of duodenal ulcer, colitis, hypertension, and obesity are almost too simple, they are interesting and informative. Many physicians will enjoy this book.

F.O.M.

CLINICAL OBSTETRICS AND GYNECOLOGY. Volume 1, Number 1. Management of Endocrine Problems. Edited by Allan C. Barnes, M.D.; Medical Problems in Pregnancy. Edited by Curtis J. Lund. M.D. New York: Paul B. Hoeber, Inc. (Harper & Brothers), March, 1958.

This book embodies a new approach to the subject of obstetrics and gynecology. This is the first in a series of four issues per year—two subjects per issue, one on gynecology and one on obstetrics. This first issue is concerned with the medical complications in pregnancy in which each subject is written by a different individual who has had special clinical experience in this field. The second part of this first issue is a symposium on the management of endocrine problems.

The main value in a book of this kind is the combination of the didactic with the practical. It is very easy reading and holds one's interest throughout the subject. This book should be included in all libraries because of its value not only as a standard textbook, but also as a reference book on these subjects.

J.R.P.

YOU CAN INCREASE YOUR HEART-POWER. By Peter J. Steincrohn, M.D., F.A.C.P. Garden City, New York: Doubleday & Company, Inc. 1958. Price $4.95.

This is a different type of "heart book" written for the lay reader by the author of a nationally syndicated medical column. It embodies advice for the lay reader on matters cardiac based on the central theme of what the author calls conservation of "heart power."

Using a homey conversational style the author discusses the common types of heart disease, related vascular disease, and their underlying causes, manifestations and management. Full use is made of the question and answer type of presentation along with interesting anecdotes and uncomplicated exposition. Each section is followed by a summary of the highlights of the material just covered.

The readability of this book is a particular recommendation to the inquiring layman concerned with obtaining a knowledge of his heart and related subjects, of diseases of the heart and circulation, and of the reasons for the various measures advised in their treatment. The importance of prevention of heart disease is stressed and although some of the advice may vary from that of other well recognized authorities in certain details, it nevertheless measures up to common sense standards. The author emphasizes the importance of obtaining a good physician and following his advice.

R.W.B.

DIABETES AS A WAY OF LIFE. By T. S. Danowski, M.D.. Renziehausen Professor of Research Medicine, University of Pittsburgh School of Medicine; Senior Staff Physician at Presbyterian-Woman's Children's, Elizabeth Steel Magee, and Shadyside Hospitals of Pittsburgh; Consulant in Metabolism, Oakland Veterans Administration Hospital, Pittsburgh. New York: Coward-McCann, Inc. Price $3.50.

Dr. Danowski presents a readable, informative, and useful up-to-date guide for the diabetic patient in this small volume of less than 200 well written pages.

This little handbook has evolved from an extensive clinical experience at the University of Pittsburgh Medical Center. Diet, food values, types of insulin, methods of insulin administration, and diabetic control in health and illness are clearly dealt with. Factual information regarding the nature of the disease and how the diabetic can cope with the various problems arising in his daily living are well set forth.

This volume is good reading which the busy physician will do well to recommend to his diabetic patients. It will encourage better control through more intelligent and effective patient cooperation.

R.W.B.

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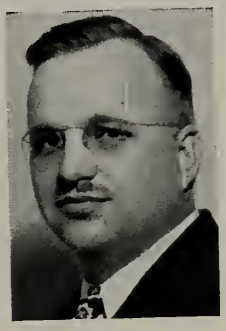
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VOLUME 57 AUGUST, 1958 NUMBER 8

Contributors to This Issue



LESTER P. DODD



VLADO A. GETTING, M.D.



ROBERT G. LOVELL, M.D.



J. F. MACGREGOR, M.D.



E. L. PRIEN, M.D.



C. K. STROUP, M.D.



F. H. TOP, M.D.

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Assistant Editor
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Medical Concourse, Northland Center, Detroit 35, Michigan

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SEARLE

Say you saw it in the Journal of the Michigan State Medical Society

The Grand Old Men of Medicine

Fifty-Year Club Membership Rises

In Detroit, on September 28, the MSMS House of Delegates will receive new members of the Fifty-Year Club who have been nominated by their respective county medical societies.

Since the idea of honoring our senior doctors was born eleven years ago, 247 Michigan doctors of medicine have joined the ranks with their venerated colleagues.

Membership requirements are that the physician must have practiced medicine for half a century—a status far easier to honor than it is to achieve.

Following is a listing of every Fifty-Year Awardee through September, 1957, with the year of induction:

*C. D. Aaron, M.D., Detroit, 1947
*William F. Acker, M.D., Monroe, 1951
*Emil Amberg, M.D., Detroit, 1947
Bruce Anderson, M.D., Pontiac, 1950
*J. H. Andries, M.D., Detroit, 1947
*A. B. Armsbury, M.D., Marine City, 1947
*Noah E. Aronstam, M.D., Detroit, 1948
*J. A. Attridge, M.D., Port Huron, 1947

George Baert, M.D., Grand Rapids, 1947
*J. A. Baird, M.D., Flint, 1947
A. J. Baker, M.D., Grand Rapids, 1957
*W. R. Ballard, M.D., Bay City, 1947
J. W. Barnabee, M.D., Kalamazoo, 1951
*Wm. E. Barstow, M.D., St. Louis, 1955
*C. M. Baskerville, M.D., Mt. Pleasant, 1948
*George Bates, M.D., Kingston, 1947
*Robert Beattie, M.D., Detroit, 1953
*Henri Belanger, M.D., River Rouge, 1947
E. G. Bellinger, M.D., Lansing, 1956
Albert E. Bernstein, M.D., Detroit, 1954
Alexander W. Blain, M.D., Detroit, 1956
Wm. E. Blodgett, M.D., Detroit, 1954
Franz L. Blumenthal, M.D., Detroit, 1953
W. P. Bope, M.D., Decatur, 1947
F. R. Boet, M.D., Grand Rapids, 1957
*A. O. Boulton, M.D., Gladwin, 1947
Phillip D. Bourland, M.D., Calumet, 1956
George H. Boyce, M.D., Iron Mountain, 1954
*C. W. Brayman, M.D., Cedar Springs, 1957
George F. Brewington, M.D., Mohawk, 1947
*H. B. Britton, M.D., Ypsilanti, 1948
Wm. H. Brock, M.D., Saginaw, 1951
*Jacob D. Brook, M.D., Grandville, 1953
*Clark D. Brooks, M.D., Detroit, 1955
*F. W. Brown, M.D., Watervliet, 1949
D. H. Burley, M.D., Almont, 1947
L. J. Burch, M.D., Mt. Pleasant, 1947

H. W. Cadieux, M.D., Detroit, 1947
*A. L. Callery, M.D., Port Huron, 1947
*A. M. Campbell, M.D., Grand Rapids, 1947
Duncan A. Campbell, M.D., Detroit, 1948
C. D. Chapin, M.D., Columbiaville, 1954
*W. E. Chapman, M.D., Cheboygan, 1947
*J. H. Charters, M.D., Flint, 1947

*Deceased.

*Nancy R. Chenoweth, M.D., Escanaba, 1947
*W. R. Chittick, M.D., Spring Valley, Calif., 1947
*S. W. Church, M.D., Marshall, 1947
*G. E. Clark, M.D., Detroit, 1947
R. B. Clement, M.D., Detroit, 1957
Julius C. Clippert, M.D., Dearborn, 1951
*W. E. Colbath, M.D., Adrian, 1949
G. C. Conkle, M.D., Boyne City, 1951
*G. A. Conrad, M.D., Sault Ste. Marie, 1951
J. E. Cooper, M.D., Battle Creek, 1952
B. R. Corbus, M.D., Grand Rapids, 1957
*W. J. Cree, M.D., Detroit, 1947
Alexander Cruikshank, M.D., Detroit, 1947
J. E. Curlett, M.D., Roseville, 1951

M. E. Danforth, M.D., Detroit, 1952
*James D. Davis, M.D., Detroit, 1948
*T. E. DeGurse, M.D., Marine City, 1947
*William DeKleine, M.D., Lansing, 1956
*A. J. DeNike, M.D., Detroit, 1953
John C. Dodds, M.D., Detroit, 1953
C. P. Doyle, M.D., Lansing, 1947
F. J. Drolett, M.D., Lansing, 1957
*Karl Dubpernell, M.D., Detroit, 1947
*F. C. Dunn, M.D., Lansing, 1949
*S. V. Dusseau, M.D., Erie, 1947

Herman C. Emmert, M.D., Detroit, 1954
Bert U. Estabrook, M.D., Detroit, 1953

Lucious A. Farnham, M.D., Pontiac, 1956
Carl Fettig, M.D., Detroit, 1949
*Walter D. Ford, M.D., Detroit, 1949
*G. H. Frace, M.D., St. Johns, 1948
B. L. Franklin, M.D., Remus, 1952
*G. E. Frothingham, M.D., Detroit, 1947
C. B. Fulkerson, M.D., Kalamazoo, 1953

*Cyrus B. Gardner, M.D., Lansing, 1955
*H. G. Garner, M.D., Detroit, 1947
Nathaniel Gates, M.D., Detroit, 1955
J. W. Gethings, M.D., Battle Creek, 1951
*James C. Gibson, M.D., Detroit, 1947
*John R. Giffen, M.D., Bangor, 1947
Clarence Gillette, M.D., Niles, 1957
*R. W. Gillman, M.D., Detroit, 1947
*J. E. Gleason, M.D., Detroit, 1953
Benjamin T. Goodfellow, M.D., Flint, 1955
*C. S. Gorsline, M.D., Battle Creek, 1951
F. E. Grant, M.D., Kalamazoo, 1947
W. A. Grant, M.D., Milford, 1952
Frank A. Grawn, M.D., Ypsilanti, 1949
*Newton H. Greenman, M.D., Decatur, 1949
*W. T. S. Gregg, M.D., Calumet, 1947
*A. J. Griffith, M.D., Detroit, 1957
*Arthur Griggs, Sr., M.D., Saginaw, 1947
J. C. Grosjean, M.D., Bay City, 1951

*B. C. Hall, M.D., Pompeii, 1947
*Joshua Hanser, M.D., Detroit, 1956
*L. J. Harris, M.D., Jackson, 1947
*Hugh Harrison, M.D., Detroit, 1947
L. L. Harrison, M.D., Niles, 1956
*Clarence L. Hathaway, M.D., Lake Orin, 1954
Wilfrid Haughey, M.D., Battle Creek, 1956
*James Henry, M.D., Grand Rapids, 1950
H. A. Herzer, M.D., Albion, 1952
*A. B. Hewes, M.D., Adrian, 1953
L. J. Hirschman, M.D., Detroit, 1949
*Fred J. Hohn, M.D., Saginaw, 1955
*Augustus Holm, M.D., LeRoy, 1951
*W. H. Honor, M.D., Wyandotte, 1953

(Continued on Page 1068)



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G. B. Hoops, M.D., Detroit, 1951
*James L. Houston, M.D., Swartz Creek, 1951
Edward V. Howlett, M.D., Pontiac, 1956
*W. F. Hoyt, M.D., Paw Paw, 1947
E. C. Hughes, M.D., Bay City, 1947
*A. Milton Humber, M.D., Detroit, 1948
*A. M. Hume, M.D., Owosso, 1947
*W. G. Hutchinson, M.D., Bloomfield Hills, 1949

W. J. Jend, M.D., Detroit, 1952
Ralph S. Jiroch, M.D., Saginaw, 1955
*J. M. Jones, M.D., Bay City, 1947

George Kamperman, M.D., Detroit, 1957
*W. E. Keane, M.D., Detroit, 1952
*J. A. Keho, M.D., Bay City, 1947
*John Kemp, M.D., Saginaw, 1947
*William Kerr, M.D., Bay City, 1947
*Wm. T. King, M.D., Ahmeek, 1951
J. R. W. Kirton, M.D., Calumet, 1948
Charles W. Knaags, M.D., Detroit, 1953

*Herbert W. Landon, M.D., Monroe, 1948
*Clarence P. Lathrop, M.D., Hastings, 1947
*W. W. Lathrop, M.D., Jackson, 1947
*H. H. Learmont, M.D., Croswell, 1950
*Abraham Leenhouts, M.D., Holland, 1948
*Simeon LeRoy, M.D., Grand Rapids, 1948
Simon Levin, M.D., Houghton, 1951
L. A. Lewis, M.D., Manistee, 1947
*David Littlejohn, M.D., Dearborn, 1947
George W. Logan, M.D., Flushing, 1951
Horace H. Loveland, M.D., Tecumseh, 1951
*Henry A. Luce, M.D., Detroit, 1955
Frank E. Luton, M.D., St. Johns, 1951
*Richard C. Lyle, M.D., Bridgeport, 1955

A. E. MacGregor, M.D., Battle Creek, 1951
*Donald MacIntyre, M.D., Big Rapids, 1947
*Donald K. MacQueen, M.D., Larium, 1947
E. A. Martin, M.D., Detroit, 1957
E. A. Martindale, M.D., Hillsdale, 1949
*Reuben Maurits, M.D., Grand Rapids, 1947
*J. C. Maxwell, M.D., Paw Paw, 1947
D. J. McColl, M.D., Port Huron, 1947
Allan McDonald, M.D., Detroit, 1953
O. W. McKenna, M.D., Flint, 1947
*W. E. McNamara, M.D., Lansing, 1953
Donald H. McRae, M.D., Detroit, 1955
*Richard E. Mercer, M.D., Detroit, 1948
*C. M. Mercer, M.D., Battle Creek, 1957
*H. G. Merz, M.D., Lapeer, 1947
Henry Meyer, M.D., Saginaw, 1947
A. H. Miller, M.D., Gladstone, 1955
*G. W. Moll, M.D., Escanaba, 1947
*Willard Monfort, M.D., Highland Park, 1949
*G. W. Moore, M.D., Bay City, 1951
*Esli T. Morden, M.D., Adrian, 1951
E. T. Morris, M.D., Nashville, 1952
John B. Morton, M.D., Detroit, 1948
L. P. Munger, M.D., Hart, 1947
C. D. Munro, M.D., Jackson, 1947
J. E. Munro, M.D., Jackson, 1953
*Dean W. Myers, M.D., Ann Arbor, 1949

*J. H. Nicholson, M.D., Hart, 1947
*Albert Noordewier, M.D., Grand Rapids, 1951
*A. K. Northrop, M.D., Detroit, 1947
Charles S. Norton, M.D., Detroit, 1954
*Charles Norton, M.D., Detroit, 1950

*David H. O'Donnell, M.D., Detroit, 1947
L. W. Oliphant, M.D., Ann Arbor, 1949
*W. R. Olmsted, M.D., Detroit, 1953
John W. Orr, M.D., Fenton, 1956
F. W. Ostrander, M.D., Freeland, 1951
*Gertrude O'Sullivan, M.D., Mason, 1947

*Robert J. Palmer, M.D., Detroit, 1949
*E. J. Panzer, M.D., Detroit, 1947
*B. Morgan Parker, M.D., Utica, 1951
*W. R. Parker, M.D., Detroit, 1947
*W. T. Parker, M.D., Owosso, 1951
*Marion F. Parrish, M.D., Sturgis, 1947
Christopher G. Parnall, M.D., Ann Arbor, 1955
Louis K. Peck, M.D., Lake City, 1947
R. L. Pfeiffer, M.D., Detroit, 1953
*Frank Poole, M.D., Saginaw, 1947
Lunette I. Powers, M.D., Muskegon, 1947
George R. Pray, M.D., Jackson, 1950

*Edward B. Ramsey, M.D., Detroit, 1950
*H. E. Randall, M.D., Flint, 1947
G. P. Raynale, M.D., Birmingham, 1952
F. L. Rector, M.D., Portland, Oregon, 1957
*G. L. Renaud, M.D., Detroit, 1947
*R. Milton Richards, M.D., Detroit, 1948
J. W. Rigterink, M.D., Grand Rapids, 1951
*Arthur J. Roberts, M.D., Jackson, 1947
*F. A. Roberts, M.D., Flint, 1957
*Melvin D. Roberts, M.D., Hancock, 1956
*Mortimer Roberts, M.D., Grand Rapids, 1947
*A. L. Robinson, M.D., Burr Oak, 1952
*Michael Ryan, M.D., Saginaw, 1947

E. D. Sage, M.D., Kalamazoo, 1951
Edward O. Sage, M.D., Detroit, 1950
*Thomas M. Sanford, M.D., Lansing, 1947
*Edward Sawbridge, M.D., Stephenson, 1947
*R. L. Schorr, M.D., Detroit, 1947
Alvin H. Seibert, M.D., Grosse Pointe Park, 1955
*H. T. Sethney, M.D., Menominee, 1955
*DeWitt L. Sherwood, M.D., Detroit, 1954
*B. R. Shurly, M.D., Detroit, 1947
*C. E. Simpson, M.D., Detroit, 1953
Frank J. Sladen, M.D., Detroit, 1956
Claude A. Smith, M.D., Dearborn, 1956
*W. J. Smith, M.D., Cadillac, 1955
*Jeanne C. Solis, M.D., Ann Arbor, 1947
*I. L. Spalding, M.D., Hudson, 1949
Wm. J. Stapleton, Jr., Detroit, 1950
Clarence T. Starker, M.D., Pontiac, 1956
Thomas C. Starrs, M.D., Detroit, 1956
Lewis L. Stewart, M.D., Jackson, 1950
G. J. Stuart, M.D., Grand Rapids, 1957

S. W. Thieme, M.D., Ravenna, 1957
E. L. Thirlby, M.D., Traverse City, 1953
J. O. Thomas, M.D., North Branch, 1947
*A. B. Thompson, Sr., M.D., Grand Rapids, 1947
*H. E. Thompson, M.D., Detroit, 1957
*Alexander Thomson, M.D., Detroit, 1947
*Otto Toepel, M.D., Detroit, 1947

*M. J. Uloth, M.D., Ortonville, 1952
*L. N. Upjohn, M.D., Kalamazoo, 1951

C. A. Van Dusen, M.D., Blissfield, 1957
*Thomas Van Urk, M.D., Kalamazoo, 1948
John Ver Meulen, M.D., Grand Rapids, 1957

*J. E. G. Waddington, M.D., Detroit, 1947
*E. C. Warren, M.D., Bay City, 1947
A. V. Wenger, M.D., Grand Rapids, 1957
*J. A. Wessinger, M.D., Ann Arbor, 1947
*J. B. Whinery, M.D., Grand Rapids, 1947
*W. G. Wight, M.D., Yale, 1947
E. P. Wilbur, M.D., Kalamazoo, 1947
U. J. Wik, M.D., Ann Arbor, 1957
*Herbert H. Wiley, M.D., Algonac, 1951
*Clayton Willison, M.D., Sault Ste. Marie, 1947
Leslie L. Willoughby, M.D., Flint, 1955
*H. R. Wilson, M.D., Saginaw, 1951
*W. J. Wilson, Sr., M.D., Detroit, 1947
W. H. Winchester, M.D., Flint, 1951
G. E. Winter, M.D., Jackson, 1947
Robert A. C. Wollenberg, M.D., Detroit, 1955
W. J. Wright, M.D., Ypsilanti, 1949

A. S. Youngs, M.D., Kalamazoo, 1947

Aloysius J. Zaremba, M.D., Bay City, 1955

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Cancer Comment

CYTOLOGY COMES OF AGE

It is now fifteen years since the monograph of Papanicolaou and Traut, *Diagnosis of Uterine Cancer by the Vaginal Smear* appeared. The decade which followed this publication was characterized by some confusion concerning reliability of the method. There were many reports confirming the work of Papanicolaou and a gradual realization of the importance of this method in the attack on uterine cancer. Most physicians and especially pathologists are cautious in their appraisal of new techniques. Although there was little doubt that Papanicolaou could employ his method and obtain reliable results, there was much skepticism concerning the wide applicability of the technique. Although exfoliative cytology is clearly an extension of pathologic anatomy, many of the most prominent individuals in the latter field were highly skeptical of its usefulness. As the years have passed it has become increasingly clear that the technique is one that can be mastered relatively easily by anyone properly trained in pathologic anatomy, and that cytology is indeed a very useful tool in detecting early carcinoma of the cervix. There is no longer doubt that it is possible to diagnose lesions of this organ before they are clinically manifest.

In the metropolitan area of Detroit, there has been an enormous increase during the last few years in the examination of uterine and vaginal material by cytologic methods. Prior to that time there were only a few examinations made each year and most of the pathologists in the area had little enthusiasm for and not much experience in the use of this method. The exception to this generally apathetic state was the study which was supported by the American Cancer Society and Wayne State University and conducted at the Yates Memorial Clinic under the very capable direction of Dr. Esther Dale. Whereas, a few years ago the number of cytologic examinations in this area could be counted in the hundreds, there must now be thousands per year and we are only beginning. Coincident with the increased interest and experience of the pathologists in this field there has been the development of a school at Wayne State University for the training of cytotechnicians. These students, often college graduates, are given an intensive training under the general supervision of O. A. Brines, M.D., Professor of Pathology at Wayne State University. On completion of their training, these individuals have frequently been employed in the hospital laboratories of pathologists in the area and in this way the number of examinations has been greatly increased. With the increasing number of examinations made, there has been a progressive decrease in their cost. Whereas, $10.00 per examination was an ordinary fee five years ago, most pathologists now are able to offer the service for $5.00 and even less. This too, has contributed to the utilization of the method and as a result we are beginning to see the full fruits of this great work of Dr. Papanicolaou.

Most studies have yielded one new case of carcinoma of the cervix per each 100 women examined. One cannot put a dollar sign on the value of this finding to the woman who is the beneficiary of this early diagnosis. It is also fortunate and an important point to remember, that when carcinoma of the cervix is detected in its very early stages, treatment is relatively simple and the results are most gratifying. If all this work were invested in finding early cases and we were unable to treat the lesion, then one might question the ultimate good which is being done. However, since the cure rate for carcinoma *in situ* of the cervix approaches 100 per cent and since invasive malignancy of this organ results in a survival of something less than 50 per cent of patients afflicted, it must be clear that the dictum of "early diagnosis and early treatment gives better results," really applies to this particular malignancy.

The American Cancer Society has played an important part in the utilization of this technique. Through its national and local programs it has conducted an extensive education campaign directed to the public and to the physicians. It has also aided materially in the development of schools for cytotechnicians and in providing pathologists with adequately trained personnel. We can

(Continued on Page 1084)

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HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

June 11, 1958 Meeting

- **Financial Report** for the month indicated that membership in 1958 is more than 300 higher, as of this date, than in 1957.
- **Progress report on the Seal of Assurance Plan** (to June 10) indicated that about 40% of the total MSMS Membership had enrolled with the Michigan State Medical Society to participate in the Blue Shield Contract—a total of 2,507 members. The Council adopted the following motion: "Where, in any area of the State, the percentage of returns in the Seal of Assurance Plan is low the Chairman of the Seal of Assurance Committee is authorized to arrange meetings of members of MSMS in that area, as follow up in the Seal of Assurance plan for the purpose of presenting information, and each Councilor shall be informed of this action immediately."
- **Veteran's Administration Hometown Medical Care Program:** The manual on this subject has been mailed to all MSMS members. The VA program has a special fee schedule, not the same as the Uniform Fee Schedule for Governmental Agencies.
- **MSMS Field Secretary's Office in New David Whitney House.** James J. Lightbody, M.D., reported that, in accordance with instructions of the Executive Committee of The Council, the MSMS office in the new Wayne County Medical Society building had been furnished and is now in use.
- **New MSMS Site:** Legal Counsel Dodd reported on three recent meetings with the realtor; the closing date for transfer of the property is set for July 14 in Lansing. Preliminary plans for the new MSMS building will be presented to The Council in July, with final plans to The Council in September, 1958, for reference to the House of Delegates.
- **Appointments:** (1) Liaison Committee with State Bar of Michigan—W. M. LeFevre, M.D., of Muskegon, Chairman; Francis C. MacMillan, M.D., Detroit; A. E. Humphrey, M.D., Battle Creek; (2) E. C. Texter, M.D., Detroit, designated as MSMS representative to the World Medical Association meeting in Copenhagen, August 15-20. (3) L. S. Griffith, M.D., Grand Rapids, appointed as Secretary of Tuesday Afternoon, September 30, Assembly at MSMS Annual Session; Sherwood R. Russell, M.D., St. Johns, and Viola G. Brekke, M.D., Highland Park, as Chairman and Secretary respectively of Thursday afternoon Assembly, October 2, 1958; (4) G. Thomas McKean, M.D., Detroit, as Chairman of Testimonial Luncheon during 1959 Michigan Clinical Institute. (5) D. Bruce Wiley, M.D., Utica; and Sidney Chapin, M.D., Wyandotte, as speakers at University of Michigan Orientation Week.
- **Legal Counsel Dodd reported on:** (1) Form of consent for surgical operations, in which he highly recommended the forms in the booklet "Medicolegal Forms" published by the AMA Law Department (2) Ownership of a patient's hospital medical record; (3) Hospital Staff Memberships, (4) Constitution of a certain hospital in Michigan: (5) Michigan Hospital Service Form 478 requesting re-verification notice after 30 days.
- **Public Relations Counsel's Report** included a round-up on the year's legislation; problem in polio immunization program in one county; progress report on Michigan Association of Professions.
- **Committee Reports:** The following were given consideration: (1) Arbitration Committee, meeting of April 25; (2) Geriatrics Committee, May 14, (3) Special Committee on Study of T.B. Facilities, May 14, (4) Mental Health Committee, May 22, (5) Postgraduate Medical Education Committee, May 22, (6) 1959 Michigan Clinical Institute Committees on Arrangement and program, May 29 and June 5.
- **Letter from Wayne County Medical Society** re expulsion from membership of Howard L. Bergo, M.D., and C. H. Vann, M.D., was reported.

OFFICERS NIGHT DINNER DANCE

Wednesday, October 1, 1958

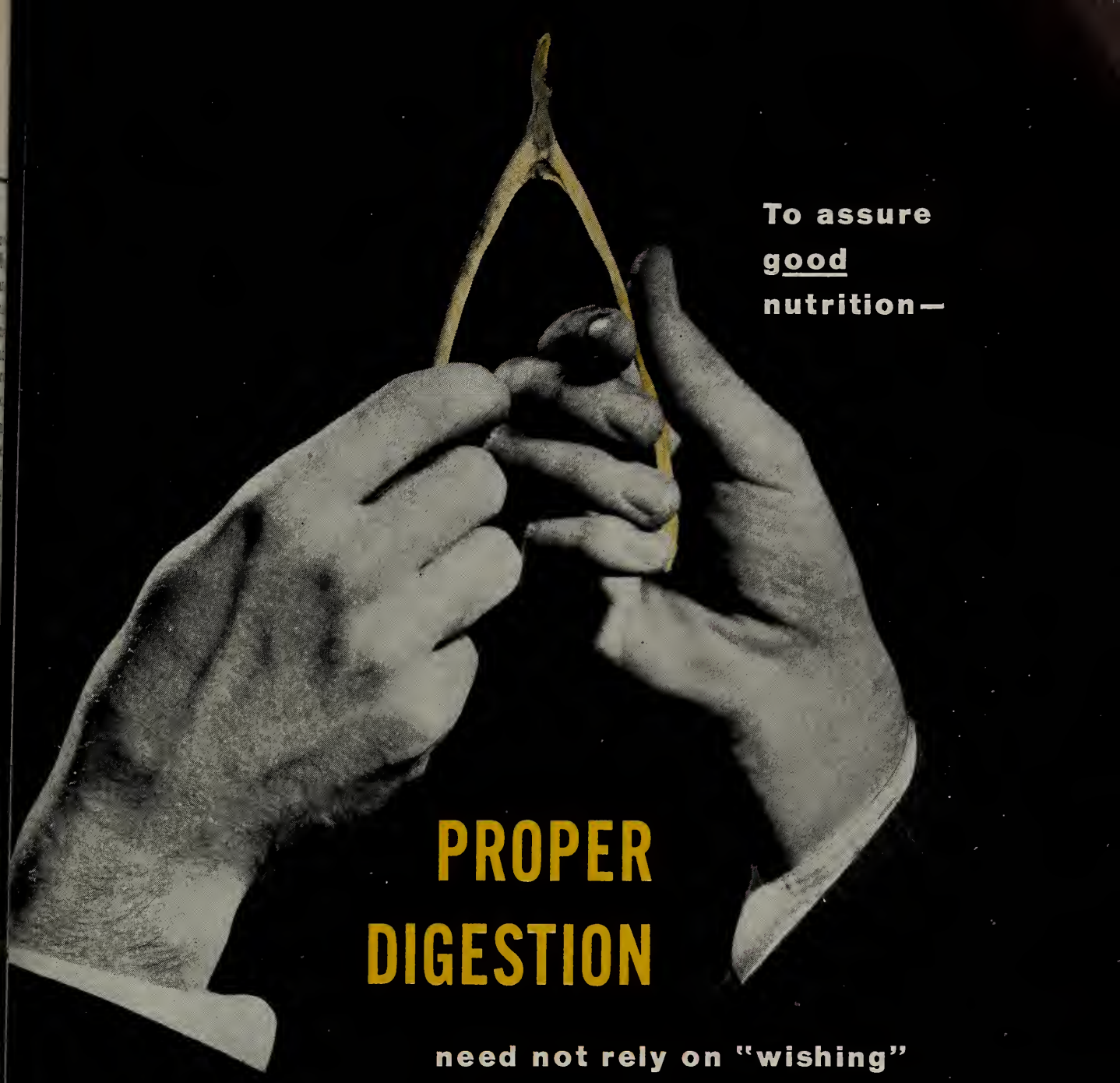
You and your lady have a date at the 1958 MSMS Officers Night Dinner Dance, Sheraton-Cadillac Hotel, Detroit, on the Wednesday evening of the MSMS Annual Session.

The O.N.D.D. Reception will be held in the Boulevard Lounge, off the lobby of the Hotel, at 7:00 p.m. Dinner and dancing will follow at 8:00 p.m. in the Book Casino, also off the lobby.

Miss Ann Landers, Human Relations Counselor, of the *Chicago Sun Times* syndicate and author of your "Problems" will speak on "The Advice Column—the Poor Man's Couch."

The Officers Night Dinner Dance is the top social feature of the MSMS Annual Session and is sponsored by the State Society and its Woman's

(Continued on Page 1074)



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OFFICERS NIGHT DINNER DANCE

(Continued from Page 1072)

Auxiliary. The subscription dinner is arranged for all members of the Michigan State Medical Society, their ladies and guests. A gay evening of good fellowship and pleasure is in store for all who attend this delightful and informal affair.

Invitations to all members, with detailed information on this interesting dinner party, are being mailed to all members. Tables may be reserved in groups of ten. Individual reservations are also invited. Contact Co-Chairmen George W. Slagle, M.D., and Mrs. C. Allen Payne, Box 539, Lansing 3.

JENKINS-KEOGH BILL: HR 10

On July 29, 1958, the United States House of Representatives passed HR 10, the Jenkins-Keogh Bill. The bill allows self-employed persons, professional persons, doctors, lawyers, dentists, architects, and others to lay aside a small amount of their earnings, not exceeding 10 per cent, or $2,500 a year, to be used for retirement income. Leaders in industry have had this privilege many years, through their employment, the cost being deducted before taxes.

THE JOURNAL of the Michigan State Medical Society started agitating editorially on this subject about eleven years ago, and is now happy to see the first fruits of success. The victory is not yet won. If the Congress adjourns before Senate action, the bill dies unless a new session is called with that bill listed as part of the action to be taken.

If our members wish to capitalize on the progress made so far, they should write and express their desires to Senator Pat McNamara and Senator Charles E. Potter, Senate Office Building, Washington, D. C., or see them personally. A great advancement of the tax-saving program has been made. Let us not lose it by inaction.

HEALTH SERVICE SHOCK

An article occupied the whole front page of the *London Sunday Dispatch,* July 13, 1958, with the title, "Health Service Shock." Sub-titles were: "Women Are Kept Waiting Four Years for Operations," "Hospital Bed Shortage is a National Scandal, Doctors Told," "Private Medical Scheme Jumps to a Million." We quote:

An astonishing revolution against the National Health Service—just ten years old—is going on all over Britain. A million people are paying for private medical attention—ten times as many as when the service was introduced.

So great is the demand for treatment outside the scheme that private nursing homes and hospitals are being brought up by provident societies, who operate them independently.

The biggest of these societies—British United Provident—had a subscription list of £74,000 in 1948. Today the figure is £2,500,000.

The society has already set up a charitable trust to operate private nursing homes, and plans to extend its activities all over the country.

Why are people turning away from the Health Service?

Why are so many people prepared to pay—often heavily—for treatment they can get for nothing?

Part of the answer lies in the acute shortage of hospital beds—a shortage which a prominent surgeon yesterday described as a "national scandal." He was Dr. Eric Arthur Gerrard, of Manchester. And he told members of the British Medical Association at Birmingham that women were being kept waiting up to four years for operations which sometimes became necessary after childbirth. In his own hospital, twenty-six women were on the waiting list for every bed available.

"All this is a service which is claimed to be the envy of the world," said Dr. Gerrard. "What complacency. What deception. What a scandal it all is."

Small wonder, then, that many people prefer to pay for beds—that the health provident societies are enjoying such a tremendous boom.

Mr. E. F. Webb, general manager of the British United Society, stated: "The increase in the number of people who are prepared to pay has been so phenomenal that we have begun to get worried about the supply of private beds."

Who are the people who are flocking for independent medical treatment? Mainly £1,000-a-year professional men, with a tradition of paying for what they want.

And what do they want, apart from being able to choose their own time for going into hospital?

They want privacy—a room of their own, a telephone, visitors at any time.

They want the feeling of confidence that comes from being able to choose their own specialists and surgeons.

They want prompt treatment, both in hospital and as out-patients, without the interminable delays so often associated with the British Service.

MEDICOLEGAL FORMS

Because of the importance to the physician and surgeon of the use of adequate and appropriate medicolegal forms, we present the following as the first of a series of sample forms covering various typical situations. We are indebted to the Law Department of American Medical Association for permission to reproduce these forms from its excellent compilation entitled "Medicolegal Forms with Legal Analysis" (copyright 1957).

This complete compilation of forms with legal analysis may be procured, if desired, from the Law Department, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

The forms selected for publication in this series are chosen by MSMS Legal Counsel, Lester P. Dodd, and in some cases may have been altered somewhat by him to suit local conditions.

It should be emphasized that these forms are offered as general guides and should not be relied upon blindly as affording protection under any and all circumstances. In any case of doubt or in situations where adaptation to particular circumstances is required—see your lawyer.

CONSENT TO OPERATION

PATIENT _____ AGE _____

DATE _____ TIME _____ A.M. / P.M. PLACE _____

1. I hereby authorize Dr. _____ and whomever he may designate as his assistants, to perform upon _____ (*State name of patient or "myself"*), the following operation: _____ (*State nature of procedure(s) to be performed*); and if any unforeseen condition arises in the course of the operation calling in his judgment for procedures in addition to or different from those now contemplated, I further request and authorize him to do whatever he deems advisable.

2. The nature and purpose of the operation, possible alternative methods of treatment, the risks involved, and the possibility of complications have been fully explained to me. I acknowledge that no guarantee or assurance has been made as to the results that may be obtained.

3. I consent to the administration of anesthesia to be applied by or under the direction of Dr. _____, and to the use of such anesthetics as he may deem advisable, with the exception of _____ (*State "none", "spinal anesthesia", etc.*).

4. I am aware that sterility may result from this operation although such result has not been guaranteed. I know that a sterile person is incapable of parenthood.

5. I consent to the disposal by authorities of the _____ Hospital of any tissues or parts which may be removed.

6. I consent to the taking and publication of any photographs in the course of this operation for the purpose of advancing medical education.

7. For the purpose of advancing medical education, I also consent to the admittance of observers to the operating room. I CERTIFY THAT I HAVE READ AND FULLY UNDERSTAND THE ABOVE CONSENT TO OPERATION, THAT THE EXPLANATIONS THEREIN REFERRED TO WERE MADE, AND THAT ALL BLANKS OR STATEMENTS REQUIRING INSERTION OR COMPLETION WERE FILLED IN AND INAPPLICABLE PARAGRAPHS, IF ANY, WERE STRICKEN BEFORE I SIGNED.

Signature of patient _____

Signature of patient's husband or wife _____

When patient is a minor or incompetent to give consent:

Signature of person authorized to consent for patient _____

Relationship to patient _____

Witness: _____

Note: This is a general form of consent which will apply to various surgical cases by striking out the portions which are inapplicable. Where the anesthesia is to be administered by a nurse anesthetist, the name of the attending surgeon should be inserted in paragraph 3.

PR REPORT

ORIGINS OF SELF REGULATION IN MEDICINE: PART SIX

By Gaylord S. Bates, M.D.

Each century since has produced examples of idealistic writing. Our modern concern with an ethical code dates directly to Thomas Percival and his "Medical Ethics" published in Manchester, England, in 1803. In 1789 Percival was requested by the Board of Managers of the Manchester Infirmary to draw up a scheme of medical conduct relative to hospitals and other medical charities. Percival himself was a scholarly man, a respected physician and a noted writer on philosophical topics. What he wrote was a comprehensive and detailed exposition of how physicians should conduct themselves in their relations with each other. What little pertained to morality was submerged in 246 pages of instruction and injunction for the proper conduct of professional business. Its quick and widespread acceptance, though not without controversy, had beneficial effects in a field that was in disorder. In this country several state and local medical societies adopted Percival's Code with little or no modification. The American Medical Association was founded for the express purpose of raising the standards of professional behavior and of medical education. It adopted a slightly revised form of Percival's Code at its first meeting in 1847, and the net effect of this guide has been good. Where morals and etiquette are combined in a multitude of detailed instructions about human conduct there is bound to be confusion of values and contradiction in rules. In spite of the contradictions and the confounding of morals with matters of etiquette, Percival's legacy in the form of the "Principles of Medical Ethics" of the American Medical Association has contributed greatly to the prestige American medicine enjoys.

From the foregoing my own judgments are expressed in this manner:

Every civilization has appreciated the necessity of physicians for its own survival. The potential for harm that is inherent in the practice of medicine through lack of skill or lack of moral fitness has also been recognized by all societies. Society, through government, has attempted to protect itself against the danger from lack of skill by prescribing the course of training and experience a candidate must pursue before qualifying by examination for the privilege to practice. It has prescribed by law certain duties of the practicing physician. Society has also required evidence of moral fitness in a candiate but has never been able to write safeguards into law as with scientific training. This qualification has been left to physicians themselves to regulate. To insure professional skill the present examination and licensing system has evolved. To insure moral fitness there has evolved a system of self-regulation based on a moral code unsurpassed by the ethics of any other social group. In the language of chemistry I see here an unstable equation with the loosely held ions in the moral molecule ready to shift to the more powerful molecule of state control. I see here our warrant for constant efforts to strengthen our professional ethical behavior and to improve our quality of practice. It gives to me an understanding of an ethics committee, of a credentials committee, of an audit committee, of the Fellowship pledge of the American College of Surgeons, of my county medical society. It has given me more confidence in an appeal to medical students and residents to strengthen the idealistic traditions of medicine.

Final installment of a paper presented before the Detroit Academy of Medicine at the Dearborn Inn, November 12, 1957.

MEDICAL MEETINGS AND CLINIC DAYS

Fall, 1958	Postgraduate Extramural Courses	Statewide
September 30 Oct. 1-2-3	MSMS Annual Session	Detroit
Oct. 2	Michigan Division, A.C.S., District 1 Workshop	Sturgis
Oct. 7	Michigan Division, A.C.S., District 4 Workshop	Mt. Pleasant
Oct. 16	Michigan Division, A.C.S., District 2 Workshop	Ypsilanti
Nov. 12-13	13th Annual Fall Postgraduate Clinic (Michigan Academy of Gen. Practice)	Detroit

Low Dosage KYNEX* for G.U. Infections

Sulfamethoxypyridazine Lederle



Unusual Antibacterial and Anti-infective Properties—More soluble in acid urine[1] . . . higher and better sustained plasma levels than any other known and useful antibacterial sulfonamide.[2]

Unprecedented Low Dosage—Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides—a notable asset in prolonged therapy.[2]

Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours.

KYNEX—WHEREVER SULFA THERAPY IS INDICATED

Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

references:
1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958
2. Editorial: *New England J. Med.* 258:48-49, 1958.

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AMA Washington Letter

THE MONTH IN WASHINGTON

For the first time since the idea was proposed more than seven years ago by President Truman and Oscar Ewing, legislation to tack a hospital and medical service program onto social security has received a thorough airing before a Congressional committee.

For eleven days the House Ways and Means Committee listened to testimony on this and other suggested changes in the law. The hospitalization plan—now identified as the Forand bill, for its sponsor, Rep. Aime J. Forand (D.,R.I.)—was by far the most controversial issue. It came up repeatedly and each time was the signal for either sharp questions or praise from Mr. Forand, depending on what the particular witness thought about the bill.

At the end of the hearings, it appeared that a majority of the committee was not inclined to press for enactment of the Forand bill, although there remained the possibility of sentiment change. At this writing, the prospect is that a bill may be enacted to raise both social security and old-age assistance payments, with a $600 increase in the amount of taxable salary or self-employment income to meet the extra OASI cost; public assistance payments came out of general revenue.

What did the Forand hearings produce?

For one thing, the proponents and opponents lined up in columns to be identified. The one important exception was the American Hospital Association. The AHA specifically opposed the Forand bill "at this time," but left itself room for maneuvering.

The hospital witnesses, Ray Amberg, president-elect of the AHA, and Dr. James P. Dixon, chairman of its committee to study health needs of the aged, said their conclusion was that federal help of some sort was needed to finance the health care of the aged, and that the social security approach might be the ultimate decision.

However, for the present the hospital spokesmen proposed that the Ways and Means Committee set up a special advisory committee—health personnel and others—to bring together all information on the health problems of the aged, study the data and make recommendations to the committee before January 1, 1960.

American Medical Association led the parade of opponents of the Forand bill, and its witnesses, Drs. Leonard Larson, a trustee, and Frank Krusen of the Mayo clinic, were subjected to close but not unfriendly questioning by Mr. Forand.

At one point Dr. Larson, the new chairman of the AMA Board of Trustees, told Mr. Forand: "As chairman, I shall devote all my energies to solving this problem and other problems of medical care plans in general. This is my primary interest. I rise or fall on what happens in this field."

Lined up with the AMA in opposing the Forand plan (in addition to the AHA) are the American Dental Association, Blue Shield, the insurance industry in general, the U. S. Chamber of Commerce and a number of other business and professional groups.

The AFL-CIO appears to be the backbone of forces working for the Forand bill. Labor's spokesmen, however, have the backing of several welfare organizations (plus the Illinois and Massachusetts welfare directors), the American Nurses Association and the Physicians Forum, among others. The latter group also informed the committee that it favors compulsory social security coverage for physicians.

Notes

A highlight of a testimonial luncheon for Surgeon General Burney was the first public appearance of Dr. Gunnar Gundersen as new AMA President. Dr. Gundersen praised Dr. Burney as a public health officer and as a government official who did not lose contact with the private medical community. The affair was in recognition of Dr. Burney's election as president of the World Health Assembly.

* * *

For the time being, neither doctors nor hospitals will have the exclusive radio frequencies they are attempting to obtain. They were temporarily turned down by the Federal Communications Commission in one category, but will continue their efforts to obtain the frequencies for emergency as well as day-to-day communications.

* * *

Internal Revenue Service has ruled that physicians on full-time staff basis with hospitals do not have to include in their U. S. income tax returns money received from patients, when the checks are indorsed over to the hospital.

* * *

While avoiding "campaigning against smoking," the U. S. Public Health Service is going to pass on to the public all the information it has on the subject. Its most recent effort in this direction was release of a report, based on studies of 200,000 veterans, that showed a much higher death rate for "cigarette only" smokers.

in each of these indications for a tranquilizer...




SR is a cardiac patient. His doctor put him on ATARAX because (+) it is an anti-arrhythmic and non-hypotensive tranquilizer.




Other tranquilizers added to PN's g. i. discomfort (he has ulcers). But now his doctor has him on ATARAX because (+)it lowers gastric secretion while it tranquilizes.




Asthmatic JL used to have frequent tantrums followed by acute bronchospasm. Her family doctor tranquilized her with ATARAX because (+)it is safe, even for children.




Senile anxiety and persecution complex dogged Mrs. K. until her doctor prescribed ATARAX Syrup. (+)It tastes good, and it's a perfect vehicle for Mrs. K's tonic.

Dosage: Children, 1-2 *10 mg.* tablets or 1-2 tsp. Syrup t.i.d. Adults, one *25 mg.* tablet or 1 tbsp. Syrup q.i.d.

Supplied: 10, 25 and 100 mg. tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

...ATARAX® gives you an extra benefit

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Division, Chas. Pfizer & Co., Inc.

AMA News Notes

"V.I.P. MEETING" THEME OF PR INSTITUTE

"Widescreen medical public relations" focusing on a broader segment of national life will be considered when key medical men meet in Chicago, August 27 and 28, for AMA 1958 PR Institute. The 1958 session at the Drake Hotel, billed as the "V.I.P. Meeting," is designed for physicians, medical society staff personnel and others working in the medical public relations field. The keys to the medical profession's public relations program in the year ahead are symbolized in the meeting title and will be revealed at the day-and-a-half-long session.

The workshop-styled program will get down to PR practicalities at its opening session with a discussion of medicine in a changing world. From the lead-off "what do you know?" session the meeting will move into deliberations on "what have you got to say?" "how do you say it?" "who do you know?" and "are they listening?"

Top people in related fields, including communications and human relations, will take part in the program.

NURSING HOME STUDY

A field survey of approximately twenty-five skilled nursing homes in various sections of the country is being conducted this summer by the AMA Council on Medical Service. Primary purpose of visits to these public, proprietary and non-profit facilities will be to obtain data that will aid in developing recommended guides and standards governing medical care in nursing homes. It is expected that much valuable information will be gathered on other important phases of nursing home operation—including nursing care, social service, food service, staffing and personnel policies, and costs. Tentative plans call for publishing the results of the survey, along with suggested standards for medical care and supervision, this fall.

This field study is one of the activities which has grown out of meetings of the liaison committee of the American Medical Association and the American Nursing Home Association. Other problems currently under the committee's consideration are the adequacy of welfare payments for nursing home care, ways of financing new and improved nursing home facilities, and stimulation of a better working relationship between nursing homes and physicians at both the state and local levels.

NEW FILM ON FOOD QUACKERY

How modern "medicine men" dupe the public into spending millions of dollars on unnecessary or overpriced nutritional products is the story unfolded in a new American Medical Association film. Prepared especially for airing over local television stations under the auspices of local medical societies, this new twenty-seven-minute film—"The Medicine Man"—dramatically pinpoints the fight against quackery in the food and nutrition field.

The film singles out problems which stem from health lecturers who travel from town to town giving misinformation on nutrition as a tie-in to plugging their products of questionable merit and from door-to-door salesmen who misrepresent the value of nutritional products. The film also shows how the medical profession co-operates with the Food and Drug Administration and voluntary agencies such as the National Better Business Bureau in the crackdown on these food quacks.

First showing of the film will be at the AMA Public Relations Institute, August 27-28, at the Drake Hotel, Chicago. Prints will be available to local medical societies after September 15 from the AMA TV Film Library.

REPORT ON HILL-BURTON SURVEY

Results of a two-year study of the Hill-Burton Hospital Survey and Construction Program will be available in booklet form August 1 from the Committee on Medical and Related Facilities of the AMA Council on Medical Service. Sections included in the report—introduction; summary; conclusions; recommendations; federal grants-in-aid; background and basic administration; general hospitals; tuberculosis hospitals; public health centers; mental, chronic disease and nursing home facilities; diagnostic or treatment centers; rehabilitation facilities, and other reference material. In addition to reviewing the legislative background of the Act and a voluminous amount of other data, reports on field surveys made in the following states are included: Arkansas, California, Connecticut, Georgia, Illinois, Iowa, Kentucky, Maryland, Michigan, Mississippi, Montana, New Jersey, Oregon and Washington. A limited number of copies will be available to individual physicians and medical societies.

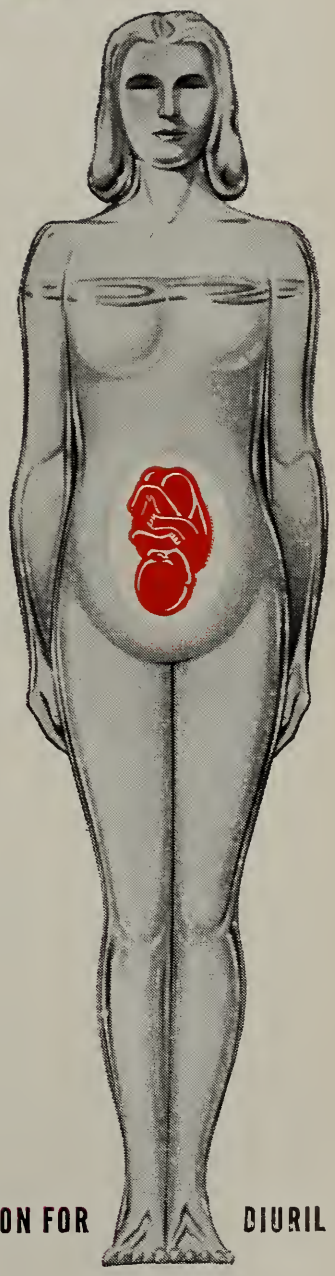
NEW FILMS AVAILABLE

Three new non-scientific films for lay audiences recently have been added to the AMA Film Library. (1) "You Are There: The Discovery of Anesthesia"—dramatizes the first time ether was used successfully in a surgical operation. This 25-minute film is narrated by Walter Cronkite of CBS Television. (2) "You Are There: The First Major Test of Penicillin"—discusses the place of scientific development in modern medicine and its influence on both peace and war. It also demonstrates preparations for testing the drug on a group of wounded soldiers. This twenty-five-minute film also was produced by CBS Television and narrated by Walter Cronkite. (3) "Someone Is Watching"—depicts actual cases from the files of the New York State Health Department's Bureau of Narcotics Control. The film runs sixteen minutes. All three of these 16mm, black and white sound films are available from AMA for showings by state and local medical societies.

(Continued on Page 1084)

pregnancy

....caused an excellent diuresis, with reduction of edema, weight, blood pressure, and albuminuria...."



ANY INDICATION FOR DIURESIS IS AN INDICATION FOR DIURIL

(Continued from Page 1080)

WORK ABSENCE GUIDE TO BE PUBLISHED

The AMA Committee on Medical Care for Industrial Workers (a joint committee of the Councils on Medical Service and Industrial Health) currently is working on a "Guide for Measuring Work Absence Due to Illness and Injury." In an effort to obtain additional data for such a booklet, the Committee will publish a "preliminary guide" which will be used in field surveys and will be mailed about August 1 to companies, individuals interested in the subject, and medical societies. Medical societies may send information on their activities in this area to the Committee.

"TODAY'S HEALTH" CONTEST WINNERS ANNOUNCED

Special recognition was accorded winning auxiliaries and their chairmen who sold the most number of subscriptions in the 1958 *Today's Health* contest at the AMA annual convention in San Francisco. The states of Oregon, Kansas, Minnesota and Ohio came out on top, reports Mrs. John M. Chenault of Decatur, Ala., national *Today's Health* chairman. State winners and their chairmen: GROUP I (membership 1 to 1,000)—Oregon, Mrs. George Nash, Portland; GROUP II (1,001 to 2,000)—Kansas, Mrs. H. Lee Barry, Wichita; GROUP III (2,001 to 3,000)—Minnesota, Mrs. H. P. Van Cleve, Austin; GROUP IV (3,001 or over)—Ohio, Mrs. Morton Block, Dayton.

County winners and chairmen: GROUP I (membership 1 to 30): 1st prize—Flint Hills counties, Kansas, Mrs. Robert Obourn, Eureka; 2nd prize—Jefferson county, Missouri, Mrs. Hart Donnell, Crystal City; 3rd prize—Johnson county, Missouri, Mrs. C. M. Lederer, Warrensburg.

GROUP II (31 to 75): 1st prize—Larimer county, Colorado, Mrs. George Brown, Fort Collins; 2nd prize—Cobb county, Georgia, Mrs. J. H. Manning, Marietta; 3rd prize—Indiana county, Pennsylvania, Mrs. Leonard Volkin, Indiana.

GROUP III (76 to 150): 1st prize—Multnomah county, Oregon, Mrs. George Nash, Portland; 2nd prize—Clark county, Ohio, Mrs. George P. Anderson, Springfield; 3rd prize—Broward county, Florida, Mrs. Richard Owen, Fort Lauderdale.

GROUP IV (151 or over): 1st prize—Sedgwick county, Kansas, Mrs. Robert Hull, Wichita; 2nd prize—Zumbro Valley, Minnesota, Mrs. W. E. Wellman, Rochester; 3rd prize—St. Joseph county, Indiana, Mrs. M. J. Fujawa, Mishawaka.

NEW CODE FOR DOCTORS AND LAWYERS

A new "National Interprofessional Code for Physicians and Attorneys" was approved by the AMA House of Delegates at its Annual Meeting in San Francisco. The Code will serve as a suggested guide for physicians and attorneys in their inter-related practice in the areas covered by its provisions—subject to the principles of medical and legal ethics and the rules of law prescribed for their individual conduct.

The Code was formulated by a joint national medicolegal liaison committee made up of representatives appointed by the American Bar Association and the American Medical Association. The three medical representatives include Doctors David B. Allman, Hugh Hussey and George Fister. Besides drawing up this new Code, the joint committee has considered such things as the encouragement of state and local medicolegal meetings, medical professional liability problems, medicolegal forms and the possibility of establishing medicolegal courses in law schools and medical schools.

The Code has been prepared in general terms to permit its adaptation in light of local conditions. The same Code will be presented for approval to the Board of Governors and the House of Delegates of the American Bar Association at its meeting in August.

In the preamble, the Code states that it "will serve its purpose if it promotes the public welfare, improves the practical working relationships of the two professions, and facilitates the administration of justice." Various sections cover such topics as medical reports; conferences between the physician and the attorney; subpoena for medical witness; arrangements for court appearances; physician called as witness; fees for services of physician relative to litigation; payment of medical fees; implementation of the Code at state and local levels; consideration and disposition of complaints.

PREPAYMENT BROCHURE REVISED

Copies of the new edition of AMA's booklet, "Voluntary Prepayment Medical Benefit Plans," will be available from the Council on Medical Service early in June. In addition to a description of plans having medical society approval, this edition of the brochure will contain data on the growth of such plans and a résumé of new developments in the field. As in the past, a supplement of "Charts and Graphs" will accompany the brochure.

CYTOLOGY COMES OF AGE

(Continued from Page 1070)

look forward with the hope that the day is not far off when every woman of age thirty will have the benefit of a cytologic examination at least once a year. When this program becomes a reality, cancer of the cervix will no longer represent a major health problem.

E. R. Jennings, M.D.
Director of Laboratories, Woman's Hospital and *Professor of Clinical Pathology,* Wayne State University, Detroit

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of the Council

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Prevention of Home Accidents

By R. H. Trimby, M.D.
Lansing, Michigan

FOR MANY YEARS the principle that a man's home is his castle has been well recognized. The door has been closed to all except those who have been provided with certain legal papers. This is as it should be and no one would want to change this ideal. There are, however, many aspects about a home which, when unfavorable, directly or indirectly affect others, and not the least of these are accidents.

Since all deaths are reportable, it has not been hard to establish the relative place that accidents play in the total picture as far as deaths are concerned. However, because of the "castle" principle, it has been difficult to obtain an accurate record of nonfatal accidents occurring in the home. It has been estimated by the National Safety Council that there are probably at least 150 home accidents for each one that leads to death. The studies we were able to carry out in Ingham County, and those of Dr. Starbuck and others in Boston, indicate that the figure is at least two to three times that of the Safety Council estimate.

Why have accidents been emphasized so much lately? This is probably answered best by showing the relative progress made since 1930. Since that time deaths from the various communicable diseases have been reduced 97 per cent, deaths from appendicitis, tuberculosis, and pneumonia, reduced approximately 90 per cent. During the same time accidents have been reduced only 48 per cent, undoubtedly too generous a figure, since today we are able to save many more of the injured. Thus, the number of accidents may not have been materially reduced at all. At the present time accidents are the chief cause of death in children under the age of five, and are the fourth leading cause of death among people of all ages. Heart disease, cancer, and vascular disease of the central nervous system are the only ones that surpass accidents in the older age group.

The facts are there. The question to be solved is related to some method of prevention. To do this we must again enter our "castle" and study both the causes of the accidents and study the man in the castle himself. The study, "Home Injuries," published by the University of Michigan School of Public Health in 1953, shows the interesting fact that many people were injured as they went about their daily tasks without any extenuating circumstances, yet seldom did the injured consider himself to be at fault. Here is a significant part of the problem—no one feels it is necessary to do anything about a situation if he feels no responsibility toward it. Under these considerations another injury awaits the person as soon as conditions are similar to those which produced the first accident.

The first step in our solution to the problem of reducing accidents might be to accept the implications in these studies; namely, that the individual should be made aware of his broad responsibility for injuries to himself and to those dependent upon him. After one has accepted this principle then education begins. One of our faults is that

Presented at the Eleventh Annual Michigan Rural Health Conference, Ann Arbor, January 22 and 23, 1958.

we are apt to forget there is a never-ending new crop of individuals to be educated. We do not start with the knowledge our parents have, but must begin at the beginning and do the learning ourselves. A home safety program is needed regardless of the location of our home, although rural homes do tend to have higher rates of injury. Safety cannot be purchased—injuries have not shown any definite relation to income and the program is needed the year around.

There are several ways we might approach our suggestions for home safety. First, as we turn into our castle from the road or street, we enter our yard. This should be neat and have a picked up appearance. Do not leave tools, bicycles, sleds or other articles in the yard; store them in the garage or basement.

In the winter, after cleaning the snow, use salt or sand to prevent slipping. Watch the eaves of your house. (David Z., age eight, was catching the drip of an icicle in his mouth when the icicle let go and hit him between the eye and nose. Fortunately only his tear duct was cut.) Knock the icicles off if they are overhead.

Putting the car in the garage is not as hazardous as getting it out. Avoid the possibility of carbon monoxide poisoning by assuring ventilation. Prop the garage door securely open if warming the car, or even better back out of the garage. If children are about double check their position before moving the car. If insecticides, rodent poisons, or chemical fertilizers are left in the garage, keep them out of the reach of children. Read the directions before using them. Dispose of dangerous wastes. (Roger's father had removed the acid from a car battery, but then put it in a glass jar and left it on the garage floor. When Roger, aged four, drank it he developed damage to his throat and windpipe. He is now well, but only after five operations.)

Back to the yard—perhaps it is time to take down the storm windows. Before you go up the ladder be sure it is adequate for the job, strong enough so it will not break. Be sure the feet will not slip, and, if it is long and extended, tie the top in place. Don't try to work on that second window when it is just out of reach. Take time to get down and move the ladder to its proper reaching position. A good many accidents occur in the yard; the chief reason is falls.

About 20 per cent of injuries occur in the kitchen where mothers spend a good deal of time, and thus, the small children also. Chief among the injuries are cuts, burns, falls and poisoning. (Peggy A., aged ten months, grasped the hot open oven door and received first and second degree burns over both palms. Dennis D. grabbed the teapot and pulled it over, spilling hot tea over his chair and sustained severe burns on both buttocks.) Keep young children out of the kitchen whenever possible. Keep babies and toddlers in play pens where you can watch them. Arrange play areas for preschool children where they can be near you, but not in the kitchen. Give older children tasks, such as setting the table or watching the youngsters.

The handles of pots and pans should be turned away from the stove's edge so they will not be accidentally caught and overturned. Use holders for the hot vessels and, if possible, use the back burners for boiling or French frying. Knives are for cutting. Keep them sharp and in a rack by themselves, rather than with your other utensils. Broken glass should be gathered up immediately, carefully, wrapped well and thrown away separately, if necessary, to be sure of its proper disposal. Use a good can opener and promptly dispose of empty cans. Some poisons are kept in the kitchen and almost every room in the house for that matter. Ammonia, lye, bleach and drain solvents are only a few found here. Keep them inaccessible to younger children.

Falls have occurred so frequently that in many newer houses the top shelves have been permanently eliminated by plastering that area in. Place your frequently-used items on lower shelves, and if you must use upper ones, use a good step stool to climb on. The same precautions apply as in the use of our ladder. It should be unnecessary to mention the floor, but many a fall has been caused by the lowly-clothes pin, the curled edge of the linoleum that should have been tacked down, or toys that should have been picked up.

In the living room falls and burns are the chief injuries. I have seen a number of children with criss-cross burns on their hands from registers of floor furnaces. Many children have been burned by falling into an open fireplace or by igniting their clothing there. Keep a screen in front of the fireplace and be sure no embers can pop out to cause a major fire after you have left the room. Carpet and rug edges should lie flat. If you use throw rugs secure them by using rubber matting underneath. Be careful with floor wax. Use only

a thin coat to minimize slipping. Beware of cleaning fluids. Many a mother has become severely ill or worse after exposure to fumes while attempting to clean a carpet or upholstered chair.

The bedroom has produced its share of burns, falls and asphyxiation. Falls are produced largely because of throw rugs, or shoes or other articles left around the floor. Open closet doors and bureau drawers have also taken their toll. Turn on the light even though you think you know where you are going. Never smoke in bed. If there are gas or oil heaters, be sure they ventilate to the outside.

The bathroom is prey to all these hazards and adds an extra one of electric shock. Never take medicine in the dark. (A well-known race track mechanic drank some carbon tetrachloride one night by mistake and died a few days later of acute destruction of his liver.) Turn on the light, double check the label on the bottle. Remember that many good medicines turn into poisons when taken in an overdose by either children or adults.

Guard your bath tub. Use adequate hand rails mounted solidly to grasp when using either tub or shower. The floors ideally should have a non-slip surface. Be doubly careful never to touch an electrical switch or appliance while in the tub or touching a faucet. Better still—eliminate appliances from the bathroom.

The basement is no exception, and here we must add the hazard of explosion. (Joe Brown was cleaning some tools in an open pan of gasoline, neglecting the fact of gasoline vapors. The vapor spread along the floor to the furnace sixty feet away where they were ignited and flashed back to the open pan causing an explosion which burned Joe severely. Jim C. was attempting to drive nails into the cement when the nail ricocheted into his eye, permanently damaging the sight in that eye.)

Never touch a water pipe or other grounded object and a plugged-in electrical appliance at the same time. To prevent possible shock many appliances, such as the washing machine, should have a grounding wire securely attached to the frame, the other end fastened to a grounded object such as a water pipe. Home electrical circuits should not be protected by fuses of more than 15 amperes. A blown fuse represents a short or other overload and should be corrected before further use is made of that particular circuit. Electricity is not for "do it your selfers." Better get an expert for this phase of your home.

Fire is man's friend, but can be his worst enemy. Central heating is wonderful, but needs attention. Coal, gas, and oil furnaces all have their own peculiarities and maintenance requirements. Do not try to adjust them yourself. A professional repairman knows better how to prevent accidental fires. (Mr. B. thought he knew all of the adjustments, but Mrs. B and her son were all but asphyxiated from the accumulation of carbon monoxide.)

Paints, varnish, and any flammable solvents must be kept in approved cans and should be stored well away from possible heat or flame. Fire extinguishers should be of an approved type, either foam or carbon dioxide. Never use carbon tetrachloride extinguishers in a closed space. As a matter of fact the Fire Marshal is attempting to outlaw this type of extinguisher in Michigan.

In summary we will be only as safe as we want to be, never more, and frequently less. We must assume the responsibility for the safety of ourselves and those dependent upon us. Probably most home accidents can be avoided by attention to the following: (1) thinking and planning for safety, (2) trying to establish habits which will lead to automatically safe performance, (3) periodically eliminating physical hazards which creep in from time to time—use the check list your child brings home from school, it may save your life and your home, and (4) eliminating anxiety, worry, or tension which have direct and indirect effects on injury-producing behavior. Keep your mind on the task at hand.

NEW EXHIBIT OF FITNESS

"Seven Paths to Fitness" is the title of a new American Medical Association exhibit slated for debut at the Public Relations Institute August 27 to 28 in Chicago. Sponsored by the Bureau of Health Education in cooperation with the Bureau of Exhibits, the new display emphasizes the following seven avenues to health and fitness: nutrition, relaxation, play, exercise, dental care, medical care and work. Over-all murals depict the sources and activities in each category. The exhibit is primarily intended for professional audiences such as physicians, educators and others having a direct interest in physical fitness. It will be available for bookings after September 1 through the Bureau of Exhibits. (A smaller type exhibit on the same subject will be completed later.)

Peacetime Applications of Atomic Energy

By Captain James A. Brimson, MC, USN
Washington, D. C.

IN ADDRESSING you on this subject, I shall largely confine myself to remarks about the Navy's utilization of atomic energy, since that is my particular interest. Although we are a military organization, many of our efforts in this field have a direct civilian, peacetime application as you will note later. I should like at this time to point out that although I speak as a naval officer, and so naturally will stress the Navy's role, all of our efforts are made in close co-operation with every other interested government service.

Let us first consider the one use of atomic energy which has been of primary interest to everyone—both military and civilian—the propulsion of ships by nuclear power. Although this outstanding accomplishment is now accepted as a normal, everyday event, there are many other facets to this utilization which are perhaps not so well known. Just in passing, let us review the extent of this field within the Navy. There are approved, being built, or presently operating: Nineteen submarines of seven types, one cruiser, and one aircraft carrier. In addition, a destroyer is under development and a civilian ship has been approved for construction. The civilian ship, of course, is only the forerunner of many to come.

One might well ask why we bother with nuclear power propulsion when it is supposed to be dangerous, expensive and relatively difficult to obtain the energy source. I can state positively that it is not dangerous, and that fact has been amply proven since the NAUTILUS first went to sea, January 17, 1955. There have been no accidents or demonstrably harmful effects on any of our personnel since the beginning of the program. In fact, personally, I feel far safer around a reactor than I do around a large quantity of fossil fuel oil with the ever-present possibility of fire. At present atomic energy is more expensive than energy derived from conventional fuel. However, with gradual improvements in technology and attainment of the "mass-production" stage the cost will fall markedly. In any case, the tonnage and pay-load of ships are increased by a factor equal to the size and weight of present fuel stores, thus minimizing the difference in cost—by this I mean we can use the space and weight of present fuels for extra cargo. Furthermore, there is no need for loss of time due to the necessity for frequent refuelings. I cannot give you precise figures on mileage per fuel charge, but you can draw a comparison from the record of the NAUTILUS. It represents many trips around the world.

In regard to the difficulty of obtaining our energy materials, this is rapidly being overcome. Not only are we discovering new sources within the earth but, in addition, our research efforts are continually improving the utilization of our fuel. We are learning to use the cheaper and more plentiful ones that were not satisfactory for our initial efforts. Furthermore, we are discovering methods of using isotopes other than the old familiar uranium. Indeed, we can utilize not only the energy produced by uranium fission, but also can produce another isotope as a by-product which, in itself, is usable as a power source. Purely as an illustration, and not meant to be a true or scientific example, we might say this would be similar to running a machine on gasoline and as a by-product producing almost as much diesel oil to be used in another machine. Without going into complicated details, I shall say this is not a form of perpetual energy similar to perpetual motion; it merely represents a great utilization of the potential energy of the atom. This is definitely not a miracle reaction in which we come out with more than we started with. The basic laws of science still apply. The process is relatively inefficient at present, but this drawback is gradually being worked out.

We will not comment on the controlled fusion reaction, or so-called "hydrogen bomb process," except to say this has tremendous possibilities. As the newspapers are lately mentioning, progress has been made but the information is still classified.

Having looked briefly at what is perhaps the

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Dr. Brimson is in the Bureau of Medicine and Surgery, Department of the Navy, Washington, D. C.

greatest current peacetime use of atomic energy, let us look at what may be termed the "by-products" of this research. Originally a prototype reactor was built at Arco, Idaho, at the National Reactor Test Station. There the feasibility of the NAUTILUS was determined. You know the results. Having accomplished its mission, the Navy then turned to research with the reactor itself. The effort, of course, was directed to improvements in the system; however, practically all the data obtained had, and still have, a direct application to civilian power reactors. At this time, let us briefly turn to the production of atomic power for civilian uses. I say briefly because the military is definitely *not* in this business. However, the basic principles of propulsion and power production are quite similar. A reactor serves simply to produce heat, which produces steam, which activates conventional machinery for whatever purposes. Thus, we substitute an electrical generator for a propeller, and we are producing electrical power. Ultimately this will serve to conserve our limited supply of fossil fuels for other uses. In so far as comparable costs are concerned, atomic energy cannot compete with conventional fuels at present. However, similar to propulsion, as we gain experience the cost will decrease and become competitive. Argonne National Laboratory recently announced a capability of a new reactor in reducing the cost from 52 mills per kilowatt to 32 mills. They also estimate that 20 mills is regarded as economical in some areas, even at present. Furthermore, they foresee a gradual decrease to about 10 mills, which compares to the approximate cost of 7.5 mills in the Chicago area at present. Regardless of the cost, we can well envision the production and utilization of power in areas which are not now productive. Thus, we have one example of the many ways in which our support of the military for war and defense purposes pays a manyfold dividend in civilian benefits as well.

As a side remark at this time, I should like to answer a question which has been asked in other connections: "Why is the Navy involved in a civilian power project at Shippingsport, Pennsylvania?" The answer is simply that the Navy, as such, is not involved. As shown above, the Navy does have vital information on the subject through its Reactor Program. Since the Atomic Energy Commission controlls all fissionable materials, close co-ordination is required in all projects. To simplify this procedure, the personnel of the Navy Reactor Branch has a comparable billet in the Atomic Energy Commission. Thus, assistance and guidance could be furnished from an Atomic Energy Commission standpoint, rather than from a military status. You can be assured that the military has no interest in competing with other interests in the field. The sole motive is to make their experience useful to everyone in as practical a way as possible. In leaving the subject of power reactors, let us give you some statistics recently released by Admiral Strauss of the A.E.C. (Admiral Strauss is, of course, a retired naval officer.) There are built and operating twenty-three fission-type reactors; forty-four more are under construction, and twenty-one are under development or in the planning stage. Thus, we currently have eighty-eight reactors in the program, a program which is only a few short years old. You can well imagine future expansion.

To pass to more prosaic uses of atomic energy, we find they are many and of great diversity. What we might consider of prime importance to us as physicians is the use of radioisotopes. I shall not elaborate on the clinical uses of isotopes at this point as you are well aware of their value—present and future—but of some interest might be the following statistics. (Although the data are not up-to-date, they are indicative of the trend.) In 1954, Navy-wide use of radioisotopes amounted to approximately 55,000 millicuries. Of this amount, about 38,000 millicuries were used medicinally and the remaining 17,000 millicuries were used industrially. In calendar year 1956, indications were that the industrial usage was outstripping medical usage. Oak Ridge Laboratories, at some time past, had already produced over 100,000 *curies* of isotopes. The immensity of this figure may be seen when we realize this is approximately equivalent to 200 pounds of radium as compared to the approximate three pounds of actual natural radium existing in the world. Oak Ridge is not, of course, the only producer of isotopes. We may well say that isotopes are here to stay. Aside from clinical use, we will mention a few of the industrial uses, such as thickness gauges —these are very accurate and extremely useful in a continuous type of production. For example, they are useful in cigarette making and paper manufacturing. They can measure thickness of sheet metal to 1/1000 of an inch, without physical contact, thus simplifying the problem. Basically they work by the resistance of the material to a

beam of ionizing radiation. Variations in readings thus are indicative of varying thicknesses, permitting early correction of defects. Next we might mention the uses of tracers. For example, piston rings are made, incorporating a radioisotope. Measurements in the oil and filters give a positive indication of the wear encountered under varying conditions. It is used to study wear of other materials, such as tires. There are literally thousands of similar applications which lead to improved manufacture and utilization of supplies and equipment to the benefit of all.

Of great interest to industry is the process of gamma-graphing. This is basically similar to the x-raying of machinery to spot flaws in the material before they might cause injuries or losses by malfunction. The advantages are that, in place of an unwieldy x-ray apparatus with a power cable, you have only a relatively small, portable container with no cable. Thus, it can be utilized in restricted, relatively inaccessible areas. Furthermore, it is more available to smaller industries.

There are many reactors in existence for basic research; the Navy operates several of its own. There is no need to elaborate on the prospective benefits to all humanity of the discoveries thus made, but of more than passing interest to us as physicians was the recent dedication of a reactor at the National Naval Medical Center, Bethesda, Maryland (November 15, 1957). It will be used is small animal research, studies of effects on materials and the production of short-lived isotopes for both research and treatment. This is of importance because some isotopes are of such short life they cannot be shipped to hospitals from a remote production site. In addition, to the best of our knowledge the medical officer-in-charge is the only physician licensed as a reactor *operator*. We can well be proud of the role of our physicians in uniform in this nuclear age.

To proceed with our résumé of the uses of atomic energy, we must mention its potential use in the propulsion of aircraft. There are certain disadvantages to this which must be overcome. However, upon solution we again have advantages of not having to carry large volumes of liquid fuel. No longer would frequent refueling stops be necessary. As we are well aware, the greatest potential accident hazards of flight are the landings and take-offs. The greatest use will be for the military; however, that is not to say there will not be future civilian applications.

To conserve time, I shall list with only brief explanations, a few other practical current uses:

1. In agriculture:
 (a) Use of tracers in plant growth and study of photosynthesis, leading to the production of artificial foods.
 (b) Mutation of plants to produce better varieties.
 (c) Studies of uptake of fertilizers by plants leading to better growth.
2. To trace minerals and chemicals in animals to improve diet, thus improving meat and milk production.
3. In ecology, to trace harmful pests, enabling more efficient destruction.
4. To cure rubber without heat, prolonging wearing qualities.
5. To prevent accidents in industry. A radioactive source may be worn on the body, such as to trigger a cut-off switch when the body is in a dangerous position.
6. To preserve foods without refrigeration. This, I believe, will be discussed at this meeting.

We must also bear in mind there are unquestionably undreamed of uses for atomic energy. I shall not attempt to predict what these may be. Let us only remember that, when electricity was discovered, many people wondered what possible use there was for it. Can we not assume that greater energy has greater uses?

As a final consideration, we may just simply let our minds dwell on the possibilities in missiles and rockets, space exploration, and the control of weather. In the latter case, it is well within the realm of possibility that in time we can destroy violent weather phenomena as they are forming. Heat may be used to ameliorate frigid climate. Controlled precipitation on desired areas is possible. Extensive, beneficial changes are in view and much is being done in this area. I do not pretend extensive knowledge in this field; my comments are only to stimulate your thinking about atomic energy's possibilities and benefits.

In the brief time allotted it has been possible to mention only a few of the peacetime uses of atomic energy. We have dealt with the constructive uses, ignoring destructive ones. Perhaps this is not proper, since we can easily imagine using this so-called "destructive force" to convert otherwise unusable terrain to valuable property. We could literally "move mountains." Of necessity, to insure our continued existence, the majority of our present efforts are of a military nature. However, as I have pointed

but, there have been many useful by-products. When we can devote more of our efforts to other phases, there will be unpredictable benefits.

My subject has been "Peacetime Applications of Atomic Energy," but we must bear in mind that I am a physician. As such, I would be remiss in not deviating from my talk to bring to your attention certain information of a medical nature. We, as physicians, like to feel that the field of atomic energy is a governmental problem and that we are not deeply concerned as yet. But I say to you there *are* medical hazards involved, both actual and potential. I say also there is no physician in the world who is not now affected, or who will not be affected in the future by the effects of this powerful force. I cannot elaborate in this short time, so I ask only that you bear this in mind—we are creating a "fall-out" hazard which is fairly universal. It may, or may not, be dangerous, but the hazard is present. With the increased use of isotopes by hospitals, laboratories, industries, and reactors, we have an ever-growing, radioactive waste disposal problem. These wastes are going into our air, our soil, and into our water. At present they are under safe control and unquestionably they will remain so. However, there must, of necessity, be a gradual build-up. The human body will bear an increasing burden of radioactivity. When, or if, this burden becomes dangerous is impossible to predict. Please do not feel that I am predicting a major danger because, frankly, I do not know that it exists at present. I am merely asking a cognizance of the possibilities and an awareness that you may see a patient in your everyday practice who has some effects of radiation. Regardless of the strictness of control, humans are fallible, and accidents do occur. In this connection, I should like to repeat a statement that impressed me. It was said that radiation is dangerous by virtue of its anonymity. This refers to the fact that it is *absolutely undectable* by the human body. We must rely solely on instruments, which are not generally available to the average person. Therefore, as physicians, we must rely on a continuous awareness and a knowledge of effects. I would definitely recommend that each and every one of you acquire as much knowledge in this field as possible. You cannot lose and the gain could be considerable.

Atomic energy is a powerful and immensely useful genie, but it does require constant control and alertness by everyone.

In conclusion, I only wish to reiterate that, in spite of the above warning, I can, from my personal knowledge, foresee only tremendous benefits and few dangers. The potential hazards and dangers will be minimized and amply controlled with increased knowledge and experience. Atomic energy is but another step in human progress and is definitely not the world-destroying monster the ill-informed predict. Let the medical profession not be of this group, but rather let us contribute of its vast store of knowledge to attain full realization of the benefits to humanity of this revolutionary addition to the medical armamentarium.

INCREASE IN TUBERCULOSIS CASES PROBABLE

New cases of tuberculosis in 1957 declined in Michigan, according to final figures released by the Michigan Department of Health.

A total of 5,011 new cases were reported. This is a decline of 9 per cent from 1956.

In recent years, new tuberculosis cases have fluctuated between 5,000 and 6,000. The number of newly reported cases has declined at a slow rate.

Figures so far for 1958 indicate that more new cases of tuberculosis will be reported than last year.

In the first four months, a total of 2,136 new cases was reported. This is 511 ahead of the 1957 total for the same time period.

Active cases dropped 13 per cent last year. A total of 2,950 active cases was reported as compared to 3,402 in 1956.

Final figures on tuberculosis deaths have not yet been announced by the state health department. The provisional death figure was 440.

Five counties reported no new tuberculosis cases last year. They were Alcona, Clare, Crawford, Luce, and Montmorency.

More men are hit by tuberculosis than women. In 1956, 65 per cent of the active cases in Michigan were among men.

The Management of Mass Casualties and the Flint Tornado

By Sydney N. Lyttle, M.D.
Flint, Michigan

THE MANAGEMENT of mass casualties is a subject so broad that a beginning is hard to find and there seems to be no end. With the increased occurrence of tornadoes in the middle west and the probability that the next war will be global in scope, it is quite within the realm of probability that the people in this room today will be involved in either a major or a minor disaster.

The country's outstanding authority on disaster preparedness is Colonel Joseph R. Schafer of the Surgeon General's Office. He states that it is not unreasonable to speculate that an atomic attack on our country might well be directed against our important industrial centers as well as our military installations. Since these areas are densely populated, an organized effort might well produce five to ten million casualties. A single target might be confronted with the problem of caring for many thousand surviving injured.

Disasters should be classified as major and minor. A minor disaster would be one in which the hospitals and medical facilities for the care of the injured would be spared. A major disaster would be one in which the medical facilities would be wiped out.

Depending upon the size of a minor disaster, the involved community should be able to care for the injured with relatively little medical help from the outside. With a major disaster, the community involved would have to depend almost totally upon help from other communities for the care of the injured.

In Flint, Michigan, the evening of June 8, 1953, was warm and sultry. The setting sun's warm light was reflected through mountains of warm harmless-looking white clouds. There was an occasional flicker of lightning. These soon were intermingled with clouds which were dark grey and black in appearance. A darkening of the sky took place and the black vertical funnel of the tornado struck through the thinly populated area just to the north of Flint.

Within a period of three minutes and with almost geometric precision, the spinning funnel cut a swath three blocks wide by four miles in length completely demolishing 200 homes and partially damaging many others, killing 116 people, injuring 900, and causing an estimated damage of $19,000,000.

The destructive force of a tornado is beyond comprehension. This is nature's mightiest storm. For a width of 100 to 200 yards it travels at the average speed of an automobile. However, the wind velocity within it is from 500 to 600 miles per hour. It can drive a straw through a board and a board through a tree or pick up an egg and set it down half a mile away without cracking the shell.

Nothing can be done to control this terrifying visitation of nature. Advance warning of its eminence should reduce the number of tragedies by alerting those in the areas affected as well as by mobilizing those charged with the care of casualties.

As the tornado passed down Coldwater Road, it devoured almost everything in its path. Trees, homes, barns, school buildings and other structures succumbed to the fury of the attacking storm. Houses, in some instances, were granulated into a pile of slivers and rubble. Automobiles were twisted and thrown into trees.

Flint was rather fortunate during this disaster. A Disaster Committee had been formed five years previous and some plans regarding evacuation of the injured, transportation and communications had been set up. Although the plans of the Disaster Committee did not function as well in reality as they did on paper, it was not a state of utter confusion. The evacuation problem was directed by the State Police in co-operation with the Sheriff, City Police, Fire Department, and volunteer workers.

It is axiomatic that premade plans will make the management of any disaster more efficient. If no plans have been made, a disaster could bring about complete chaos with much delay and bungling in the initial period. There will be no attempt in

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this discussion to elaborate upon all the necessary plans which should be made for the complete handling of the disaster. It will be limited to the problems of the injured from the time the disaster strikes to the period of definitive management.

Under disaster circumstances there may be an appalling deficit between the medical work load created and the available medical personnel, facilities and supplies. Although the role of the doctor must be limited to strictly medical management, he should be familiar with the main problem of evacuation and transportation of the injured.

In order that evacuation, transportation and medical care should be co-ordinated efficiently, an auxiliary communications system must be developed. The usual method of telephone communication cannot be depended upon. If it is not destroyed during the disaster, the telephone system will be jammed with the nonessential calls of persons seeking information. Colonel Harold C. Dumanois has been in charge of developing a transportation and communications system for Flint. Prior to the Flint tornado all of the panel and pick-up trucks in the area were registered. Arrangements were made to have them report to the nearest outdoor theater. Here, specific instructions could be given through the automobile address system. It was through these conveyances that most of the dead and injured were transported.

At present, several methods of communications have been developed for Flint.

For many years Flint has had an ordinance certifying ambulance attendants as to their proficiency in transportation of the injured. Also, a part of the ambulance control system is radio control between the various ambulance companies and the police station. Therefore, one method of communication is through the police-ambulance-radio hook-up.

The ambulance is also a valuable tool for the movement of personnel to and from the disaster area. The roads leading to the disaster area will probably be so jammed with cars that traffic is almost impossible. These cars will belong to people who are trying to get into the disaster area to search for relatives and also the curious. Episodes such as this can interfere with the entire general handling of the episode. Where ordinary automobiles are unable to pass, the general public will make way for the siren-blowing ambulance. The use of the ambulance in transporting key personnel from one place to another is probably more important than their use in transporting the injured.

The trained ambulance attendants can be used more effectively by directing volunteer workers in transporting the injured than if they should transport the injured themselves.

A second method of communication is through the county radio club which possesses eighty-four members. They have ten walkie-talkies and a truck-drawn communications trailer, containing radios, telephones, portable power plant and lighting systems.

There are also high frequency radio hook-ups which include all of the hospitals in the city, the Red Cross headquarters and twenty-eight field units which have been organized to filter out the injured. These will help send assigned personnel and key supplies where they are needed. There is also a motorcycle club which can be used to transmit direct messages by courier.

Within a period of three hours over 500 patients along with relatives, friends and volunteer workers converged upon Hurley Hospital which was already filled to an overflowing capacity with its regular patient load. At first this appeared to be an almost insurmountable problem.

To mention there was confusion among the medical staff and hospital personnel is grossly understated. With so many people converging upon the hospital at one time there is bound to be confusion. However, this period of confusion was shortlived and when the magnitude of the situation was realized, plans for sorting and classifying the casualties were put into effect.

Hurley Hospital, where the surgery of trauma has been well organized for many years on a separate section, has been the trauma center for Flint, Michigan. The presence of a well-organized house staff, including interns and residents, was of great value. It was the house staff who first saw the injured as they arrived at the hospital and initiated the sorting and categorizing of patients according to the types and severity of their injuries. As other members of the hospital staff were rounded up, the load became lighter.

The sorting started as the victims were brought into the hospital. They were assigned to various floors according to the type and severity of their injuries. Once they were admitted to the hospital, each floor became a self-contained sorting unit. Gradually those patients who needed immediate definitive care emerged from this system.

While the sorting was going on, a survey was made of the hospital in-patients and those not requiring life-saving care and who could be cared for at home were discharged. This increased the available "sources" to care for the tornado victims.

Today there appears to be a shortage of nurses. Most of our hospitals are inadequately staffed with graduate nurses, and some of the duties of the nurses have been gradually taken over by practical nurses and nurses aides. Many volunteer nurses withdrew from retirement and an adequate supply of nurses became available. There were many volunteers who were well trained in first aid and some civilians who had previously served with the medical department of the armed forces. Everyone was put to work.

When one first comes in contact with the victims of such an episode he is impressed by the amount of dirt which covers their bodies and clothes. Wounds are numerous and all of them are dirty; many of them are perforating containing grass, straw, wooden splinters and almost anything that can be blown through the air. Their skin, so to speak, has been sand blasted and the dirt is not only ground into the wounds but into the skin itself, producing a typical sand blast pattern. The amount of dirt present is almost unbelievable. During the initial few hours, 200 patients were treated and discharged. Three hundred were admitted to the hospital and one-third of these were discharged within forty-eight hours.

Those cases which could wait for treatment had to wait. The serious cases where operative treatment was a life-saving measure came first. One basic principle was repeatedly stated, "Manage the patient that you are caring for as if he were the only one in the surgical theater at the moment." It was felt that it was unwise to tie up operating rooms and equipment for the management of those cases which could be done at a later time. However, this does not mean that only life-saving procedures were carried out during the early period immediately following the disaster. Some expediencies were resorted to. This applied particularly to children who had obvious fractures. Instead of splinting them, x-raying them, and then carrying out a reduction after the fractures had been evaluated upon its own merits, many of these fractures were reduced and immobilized with plaster dressings before any x-rays had been taken. Many of these were done on the spur of the moment and without anesthesia. It hastened their definitive care and allowed them to be mobilized and discharged from the hospital so that more emphasis and time could be spent upon those people who needed to remain as hospital patients. The major injuries which were present in the 300 cases admitted to the hospital were as follows:

Forty-nine craniocerebral injuries with eleven associate skull fractures and eight depressed skull fractures.

Four abdominal injuries included a penetrating wound of the abdomen, a laceration of the mesentery and the left kidney, a ruptured spleen, a laceration of the transverse colon and a traumatic pneumothorax.

Twenty-four chest injuries included traumatic pneumothorax, pulmonary contusions, cardiac arrest, traumatic rupture of the diaphragm, laceration of the lung, laceration of the pericardium and hydropneumothorax.

There were 153 fractures of all types involving all locations. The relative number of open and closed fractures is not known. Closed and open reductions were done as indicated.

The principal causes of death were complex multiple injuries and represented 2 per cent of those people admitted to the hospital.

Most of the wound complications were those of infection. All wounds that developed hematomas became infected. Wound infections were first noted at about forty-eight hours. At sixty hours the first clinical case of gas bacillus infection was discovered. Until ninety-six hours, all wounds were examined every five or six hours and smears and cultures were obtained. Those wounds in which gas gangrene was suspected clinically and with bacteriological evidence of clostridium perfringens, verified by smear and culture, were treated as gas gangrene. There were thirty-four such cases in the total of fifty-seven wound infections. Close and frequent observation of the wounds to establish by clinical evidence the presence of gas gangrene was carried on by a commission of three surgeons and a special team of surgical residents.

On positive cases without evidence of systemic involvement, all wounds were widely exposed and the involved tissue removed. Of the total number of gas gangrene infections, five major amputations were done on those cases which showed evidence of systemic involvement and rapid dissolution of the patient.

During the repeated inspection of wounds for gas bacillus infections an assembly line method was used. Dressings were removed at one station,

wounds were inspected and cleansed at a second station, new dressings were applied at a third station. This greatly facilitated the handling of the wounds and eased the job.

This is a slide picturing a litter which was designed by David R. Limbach, a Flint radiologist, for transporting the injured within the hospital. The stretcher fits over the x-ray table and almost any radiologic examination can be carried on without moving the patient from the stretcher. The stretcher is also designed so that it can be used as an operating table and many operations were performed upon an earlier model of this stretcher which was available during the tornado.

Civilian defense committees have been organized on a national, state, county and city level. As far as can be determined, all of these plans exist only on paper until the city level is reached. At the city level, if the casualties and fatalities are to be kept at a minimum, these plans must be crystallized into something definite and concrete.

If the United States should become involved in a nuclear war, it is probable that direct attacks will be made upon our industrial centers. Chicago or Detroit and their environs could be excellent targets. A nuclear blast would probably produce many thousands of casualties.

The Flint tornado would be classified as a minor disaster since Flint was able to take care of most of the casualties with local facilities.

In a major disaster where the medical facilities and equipment of the involved area were rendered useless, that community would have to be taken care of through a mutual aid system involving medical facilities of other communities.

Disaster preparations cannot be stereotyped. They cannot be based upon a directive from Washington which would cover a set-up for all communities. What would work well for a community such as Flint, Michigan, would not work at all for Chicago. Disaster preparedness must be planned for upon an individual basis taking into account geographic location, topography and the general surrounding territory. This, coupled with the facilities at hand, differ so greatly from one community to the next that a plan to fit each community must be developed upon an individual basis.

Probably the most important way to reduce the number of mass casualties is to evacuate the people whenever a disaster is about to occur, providing there is enough warning. Flint is situated in such a position where this can be carried out in a radial manner. It is not bounded by hills or lakes or any geographic hindrances to the flow of traffic.

In Chicago the plan would have to be different. It is just impossible to evacuate people into Lake Michigan. The plan at present in Flint, as far as mass evacuation is concerned, is to be done by school districts with each school district having a designated point for reassembling. This can be carried out in a radial manner and should cause less confusion since one could well expect to find his family at the designated point of assembly within a period of a few hours.

Plans for evacuation of the injured must be formulated upon an individual basis. It has been demonstrated that rail transportation is relatively little affected by atomic blasts. Therefore, Chicago and Detroit, with their vast system of rail communications, should be in enviable positions for evacuating entire hospitals.

Under conditions of nuclear warfare it is apparent that at least during the early postdetonation period a wide disparity will exist between the medical load imposed and the surviving local medical means available. The number of casualties in need of care will far exceed the normal patient capacity of medical installations in a disaster area.

In meeting the problem the extent of medical care given will be determined by two considerations: first, the maximum care for the maximum number of patients and second, the avoidance whenever possible of procedures which will reduce any patient's ability to care for himself.

The size of the medical load and the limit of medical means available will make it essential that medical service personnel should be used only in medical treatment facilities. Thus, doctors and nurses should be used only in medical installations. Any effort to use them in rescue or first aid work would be a waste of medical personnel. The rescue and first aid work will have to be done by nonmedical people.

Sorting is the key to the effective management of large numbers of casualties. It is the immediate grouping of patients according to the type of injury and seriousness of injury, likelihood of survival, and the establishing of priority for treatment to assure medical care of the greatest benefit to the largest numbers. Sorting effects early release from patient status of maximum numbers of people who are capable of continuing their primary

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The Organized Home Care Demonstration of Metropolitan Detroit

By Vlado A. Getting, M.D., Dr. P.H.
Ann Arbor, Michigan

THE HOME CARE DEMONSTRATION PROGRAM administered by the Visiting Nurse Association of Metropolitan Detroit has served over 205 patients during the first two years. These individuals have been under the care of some 162 private physicians. In no instance did the Visiting Nurse Association accept any patient who was not under the care of a private physician. This program has made it possible for private practitioners to make available to their homebound patients, both acute but primarily with chronic illnesses, services which otherwise could not have been brought to them in their homes.

In December, 1957, the Visiting Nurse Association of Metropolitan Detroit, which serves the greater Detroit area and extends into Southern Oakland County, most of Wayne County and the southern part of Macomb County, completed its second year of the Home Care Demonstration. During this period the number of patients almost doubled, increasing from seventy-four admissions in 1956 to 133 patients in 1957. In 1955 the McGregor Fund agreed to contribute $75,000 to cover the cost of the administration of the three-year demonstration in home care. A fourth year extension through 1959 has been recently authorized. The program was initiated by the Visiting Nurse Association after approval of the Wayne County Medical Society, the Hospital Council of Greater Detroit, and the United Community Services of Detroit. The Detroit Demonstration was intended for long-term patients whose medical care is given by private physicians in contrast to the hospital administered home care programs which are designed almost exclusively for patients who are not only medically indigent but whose medical care is the responsibility of staff physicians employed by the hospital.

An organized home care program is defined as "that phase of comprehensive medical care which, through co-ordinated efforts, is designated to meet the individual's medical, nursing, social, rehabilitative, and economic needs of those patients who may be treated at home."[2] Thus, a home care program is expected to include at least the minimum of medical and nursing care, social services, and essential drugs and supplies. In addition, other services such as physical or occupational therapy, homemaking, health education and nutritional services may be available. As defined by the National Conference on Care of the Long Term Patient;[1] "The essential characteristics of an organized home care program are considered to be as follows: (1) centralization of responsibility for administration; (2) co-ordination of the various services and resources made available to the patient; (3) a medical care team or the opportunity for various disciplines to deal jointly with the health needs of the patient and his family and to develop definitive planning for the patient. In addition, the program was required to be served by one or more hospitals, with adequate facilities and equipment for extending services into the home."

In 1955 the U. S. Public Health Service[3] made a study of eleven home care programs which were administered by various types of agencies and institutions and by personnel with different kinds of professional backgrounds. Eight of these programs were based in medical agencies and were administered by physicians. Two were in social agencies and were administered by social workers and one was in a nursing agency and was administered by a public health nurse. This study demonstrated that organized home care programs varied in size from a few patients to thousands of patients. They included patients of all ages with virtually all types of illnesses, of all degrees of severity, and the kinds and amounts of services provided varied greatly. The cost per patient, or the per day cost of care, also varied from one program to another. These programs provided care primarily for the indigent and medically indigent, and the services were not generally available to patients of private practitioners.

In December, 1956, the Council of Medical

Dr. Getting is professor of Public Health Practice, School of Public Health, University of Michigan.

TABLE I.

Diagnostic Classification	Number	Per Cent
Total patients receiving care	171	100%
Heart and Circulatory	17	10.0
Rheumatic Fever	7	4.1
Arthritis	13	7.6
Cancer	15	8.8
Neurological		
Cerebral Vascular Accident	38	22.2
Multiple Sclerosis	90 12	52.6 7.0
Other Neurological	40	23.4
Diabetes	7	4.1
Polio	9	5.3
Tuberculosis	1	.5
Fractures resulting from accidents	12	7.0

Service of the American Medical Association put out a publication entitled "Organized Home Care Programs in the United States."[2] The publication is the result of a study of sixty-five organizations who replied to a seven-page questionnaire mailed to them on or after June 29, 1956. In general the organizations responsible for administering the home care programs cited one or more of the following somewhat overlapping objectives in establishing a home care program (Taken from "Organized Home Care Programs in the United States"):

"1. To provide the indigent and medically indigent with a quality of care and a range of services not normally available to this group, and at less cost;
2. To shorten the length of stay of hospital patients and reduce the readmission of discharged patients by providing better follow-up care at home;
3. To bridge the gap in medical care for those patients too ill to visit an out-patient clinic but who do not need hospital care;
4. To meet the needs of a growing number of chronically ill and/or aged patients who did not require institutional care but were occupying institutional beds because a more suitable place for care was lacking;
5. To speed the recovery of those patients to whom the family environment would have a therapeutic effect;
6. To offer the homebound patient a co-ordinated spectrum of medical, social rehabilitative services individualized to his particular needs;
7. To afford medical, nursing, and other professional and student personnel with a teaching experience in environmental medicine; and
8. To provide the private family physician with a single source from which he can obtain a comprehensive array of nursing, social, and rehabilitative services for his patient."

The Detroit Home Care Demonstration Program was not in operation at the time of the study made by the United States Public Health Service in 1955 but it was included in the report of the

TABLE II. LENGTH OF PATIENT'S ILLNESS BEFORE ADMISSION TO THE HOME CARE DEMONSTRATION

	Number	Per Cent
Total	171	100%
Less than three months	35	20.5
3 to 6 months	28	16.6
6 months to 2 years	39	22.6
2 to 5 years	31	18.1
Longer than 5 years	38	22.2

TABLE III. AGE DISTRIBUTION OF 171 PATIENTS

Age	Number	Per Cent
0 - 15 years	13	7.6
16 - 25 years	12	7.0
26 - 45 years	65	38.0
46 - 65 years	62	36.3
66 - 75 years	17	10.0
75+	2	1.1

American Medical Association's Council on Medical Services published in December, 1956. During the two years of the demonstration that ended in December, 1957, a total of 205 patients were admitted to the demonstration. About 10 per cent were referred directly by physicians. The remainder were referred either by agencies or by hospitals and others on behalf of physicians. In every instance before the case was admitted to home care demonstration the physicians' approval and participation in the program were obtained. These patients were under the medical care of 162 private practitioners who participated in the team plan mainly by telephone and written communications and more recently through active participation in conferences with the nurses, social workers and other members of the team who gave direct services to the patient. A total of 171 patients were under care in 1957. Most of these were selected from the regular Visiting Nurse Association patient load because they seemed to be in need of several services and thus required co-ordination among these services, some of which could be rendered and were being rendered by other community agencies. One-third of these patients were post-hospital. The diagnoses of these 171 patients were as follows:

Many of the 171 patients had been ill for years before they were admitted to the Demonstration. Although 75 per cent of the patients in the Visiting Nurse Association's regular case load were females, only 59 per cent of the patients in the Demonstration were females. There was a wide distribution in age with the majority of the patients falling into the middle age group. The records show

that out of the seventy discharged patients, three recovered, twenty-nine showed improvement, eighteen showed no improvement and eight died at home. Twelve died in the hospital while housekeeping and other help was still being given to their families, as six were mothers of young children. These outcomes may seem discouraging but viewed from the realistic goals set for these patients and their families they were 80 per cent successful. Sixteen of the twenty who died were admitted as terminal cases—seven cancer, six cardiacs and two multiple sclerosis. Five out of eight completely dependent patients regained some function. Fifty per cent of the markedly dependent became able to function with mechanical aids, and most of the partially dependent became able to function independently. Forty-two of the fifty discharged patients were able to carry on with self and family care at home, and eight were placed in institutions because they needed twenty-four-hour care.

A study of the seventy patients discharged in 1957 reveals that all had medical care from their family physician and nursing care from the Visiting Nurse Association. In addition, 65 per cent had physical therapy, 24 per cent, occupational therapy, 18 per cent, diet therapy and 32 per cent, home aid services from the Visiting Nurse Association. In addition fifty-two of the seventy patients received services from one to four other community agencies. Among the services rendered by these other agencies were family counseling, physical and psychological evaluation, physical and vocational rehabilitation, and financial assistance.

The administrative cost of the demonstration for the year was covered by the $25,000 grant from the McGregor Fund (part of a three-year grant). To date only the cost of Visiting Nurse Association services to the 171 patients is known. The 171 patients were enrolled in the demonstration for a total of 24,454 days, or an average of 141 days. The cost of the professional services for the year totaled $61,225 consisting of: (1) 4,521 visits at $6.90 per visit; $31,195, and (2) 2,502 home aid days at $12.00 per day for $30,030. Earnings from the services repaid $21,017 of this amount. If the administrative cost is included, the cost is $3.50 per day. If it is excluded, the cost of Visiting Nurse Association services is $2.50 per day.

The Detroit Home Care Demonstration has thus completed its second year of operation. It has two more years to go and a careful study is being made to assess its value to the community. The Visiting Nurse Association has filled two important roles in this demonstration, that of administrator and that of supplier of most of the services. The visiting nurse staff has learned from the past two years' experiences how to better co-ordinate services on behalf of the patient and is developing a more skillful method for maintaining liaison with the family physician. During the first and second year of the demonstration attempts were made to have the family physician come to one of the branch offices of the Visiting Nurse Association and there meet in conference with its members and representatives from other community agencies concerned with the patient. Because of the many responsibilities of the practicing physician, it was not always possible to obtain the attendance of the family physician at such conferences. In the past few months, however, the Association has developed a technique of holding the conference under the direction of the family physician at a place designated by him. In most instances the conference has been held at the physician's office or at a hospital on whose staff the physician served. Through this alternative method of holding conferences at a place and time more convenient to the attending physician, the Visiting Nurse Association has been able to obtain greater participation on the part of the attending physician in the team approach to the care of the patient.

The program has operated under a representative steering committee, consisting not only of physicians but representatives from the Board of Directors of the Visiting Nurse Association. The Medical Advisory Committee has been chaired by Ralph A. Johnson, M.D., and included seventeen other physicians in its membership. Three physicians were named by the Wayne County Medical Society as official representatives. In addition a community advisory committee, consisting of representatives from twenty-eight community agencies, met periodically with the staff of the demonstration project and assisted them in the development of the program.

The services of the Home Care Demonstration Program have been made available to any patient who is under the care of a family physician. However, most physicians have not recognized any difference between referring a patient to the Home Care Demonstration Program or to the regular Visiting Nurse Association program. Currently the Visiting Nurse Association is making an effort to

inform staff physicians of the availability of the Home Care Demonstration services to any patient regardless of income. Thus any private physician may refer a case to the Visiting Nurse Association for regular care or for home care demonstration provided of course that his condition is such that he is eligible for admission to the Home Care Program. The Visiting Nurse Association has set forth eligibility requirements for admission to the Home Care Demonstration as follows:

(1) A patient must be willing and able to be cared for at home.

(2) He must have a practicing physician who agrees to participate in the program.

(3) The patient must require a multiplicity of types of services requiring co-ordination of such services, usually not only by the Visiting Nurse Association but by other co-operating community agencies.

Every case that is referred is admitted to the regular Visiting Nurse Association service. The case is studied carefully, the home situation evaluated, and the case discussed with the attending physician. If upon this study it is determined that the patient meets all eligibility requirements, arrangements are made with the attending physician to hold a case conference at his convenience and at a place designated by him. This conference is attended by the physician who usually presides at the conference, by the nurse administrator or co-ordinator, by the visiting nurse assigned to the case, by the social worker and by such representatives of such other services or community agencies as may be concerned with the special problems which exist in the home. At this conference a plan is developed for the care of the patient. Oftentimes not only is provision made for the physical need of the patient but rehabilitative services or educational services for other members of the household may likewise be required. Occasionally the patient's family is in as great a need for help as is the patient himself. Thus, through the co-ordinative efforts of the patient's private physician and the co-ordinating work of the Visiting Nurse Association, all necessary services are provided to the patient so as to afford him his greatest and most rapid chance for recovery. It must be recalled that not all patients can improve, and many of the patients referred to the Association may be progressively declining and some may be even terminal. Nevertheless, if the patient can be made more comfortable, if his lot can be eased, if the family can feel that all possible is being done on behalf of their relative, not only is the patient doing better but the position of the attending physician is eased.

Since only a fraction of the patients admitted to the Home Care Demonstration have had previous hospitalization, this program has differed considerably from other home care demonstration programs. Many of the cases have been ill for long periods of time at home but have not had the advantage of this type of co-ordinated community services under the direction of their physician. In some instances, patients who have been disabled and who had not received all the necessary services prior to the advent of the Home Care Demonstration Program have showed great improvement and have become self-sustaining, thereby becoming much lesser burdens upon their families and in turn upon the community as a whole. Many of the patients cared for by the Home Care Demonstration would have had to be hospitalized had these services not been available. Thus, the Home Care Demonstration Program has made it possible: (1) to discharge certain patients at an earlier date to their homes thereby reducing the cost of expensive hospital care, (2) made it possible to retain certain patients at home instead of sending them to a hospital and thereby reduce the cost of expensive hospital care, and (3) made it possible for many home-bound patients to receive services which otherwise they could not obtain, thereby making their lot and that of their family more humane and more comfortable and the physician's services more effective.

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A Lawyer Looks at the Medical Profession

By Lester P. Dodd
Detroit, Michigan

THERE ARE, in our civilization, two basic professions—medicine and the law. The one deals with the physical and mental condition of man; the other, with his liberties, rights and obligations. It is no part of my purpose to compare the two or to attempt to rank them in order of importance. Whether life is worth living or preserving without liberty and the protection of the law, or whether the rights and liberties of man are secondary to the preservation of health and life itself is not my present concern. Let it suffice to say that *both* are vital to the preservation of a society worth living in. Man can survive, after a fashion, without any of the other professions—not as well, certainly, nor as happily, nor as comfortably, but he *can*—survive. But without *both* medicine and law there can be, almost literally, no survival. Without the one, epidemics could decimate the populations of the world in short order. Without the other, the modern scientific forces of destruction could wipe out the earth's population overnight.

In my own professional life I have had what I regard as the good fortune to be rather closely allied with both professions. And because I have the most profound respect for both, I am extremely conscious of the dangerous consequences of permitting either to become subject to non-professional control.

An Independent Profession

More particularly, I am concerned today with the medical profession and with some of the dangers I see ahead if an indifferent or uninformed public allows itself the dubious luxury of complacence about the constantly continuing threats of encroachment on the freedom and independence of that profession.

Chief of such threats is, of course, the ever present one of ever greater socialization of medicine—the constant agitation for increasing governmental participation in the furnishing of medical care to the people through government-financed, controlled and administered programs of all kinds. Sometimes boldly undisguised, often sugar-coated by being labeled "temporary" or "supplemental" or "emergency," they nevertheless point to the same ultimate end—the loss of a free and independent and virile medical profession.

If the time comes when that result shall have obtained, it will make little difference to you, the ultimate consumer of medical care, whether it shall have resulted from the efforts of misguided idealists, the machinations of cheap politicians, or the stratagems of ambitious leaders of powerful minority groups who seek to alter the pattern of our social and economic life to fit their own selfish ends.

Whether it shall have come about through big, bold socialistic programs, or through a series of more cunningly disguised and more disarming plans such as some that are now being proposed in the prepayment medical care field, or through small erosionary processes such as are illustrated by current local challenges of the right and duty of the medical profession to regulate the practice of medicine in public and semipublic hospitals, is of little real consequence. A nation cannot be strong and healthy and at the same time harbor an impotent medical profession.

If an informed public wants and is satisfied with medical care strictly regulated from without the profession, that is what it will get, and deserve. If it wants the highest and best type of medical care that medical men are capable of giving, it will, in my judgment, get that kind of care, just as long, and no longer, as it entrusts to the medical profession the greatest latitude in self-control and self-regulation.

Of course I do not mean self-control and self-regulation in the sense that the medical profession should be regarded as above or beyond the law of the land or that the profession, as a whole, or its members as individuals, ought to be free of the legal obligations and restraints applicable to all society.

I do mean, however, that the medical profession should not be regarded as fair game for the sniping of those who would make it a servant of bureau-

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cracy rather than a servant of mankind, nor should it be relegated, with the public's blessing, to the status of the supplier of a fringe benefit to be bargained for at the bargaining table of labor and industry.

Medical Self Regulation

Now obviously, in order for the public to formulate a valid judgment with respect to the degree to which the medical profession may be trusted with the right of self-direction and self-regulation, it must have some awareness of some of the many professional activities by which its capacity for self-regulation may be judged. Personally, I think the profession has exhibited an excessive modesty in failing to acquaint the public with more of these phases of its professional life. I have been literally amazed, as I have come to know more about the workings of the profession, how *many many* areas there are in which doctors, unselfishly and without compensation, spend vast amounts of time and energy in behind-the-scenes activities, having for their sole purpose the furnishing of better medical and surgical care, of which the vast public has no inkling. For instance, how many of you ladies, excepting, of course, the wives of doctors, know of the functions of medical audit committees, tissue committees, mediation committees, ethics committees, staff qualifications committees, etc., etc.

Because I think some understanding of such phases of medical discipline and self-regulation is necessary to an understanding of today's medical profession, I should like, from the nontechnical viewpoint of one who is not a doctor, to attempt to acquaint you, at least superficially, with some of them.

Medical Adult Committee

What, for instance, is a Medical Audit Committee? I dare say that without knowing it some of you here today have been medically audited. It is a painless but therapeutic process, administered without embarrassment (at least to the patient), and, I hasten to assure you, administered anonymously and without violation of the confidential nature of your medical records. Very simply, it is the work of a committee composed of doctor members of a hospital staff charged with the duty of reviewing the records of patients in the hospital—in some institutions, all cases; in others, selected cases. These are reviewed without identification of the patient or of the doctor and these reviews serve several purposes. For one, they insure that adequate and accurate records are kept. For another, they serve to ascertain and insure that the care and treatment administered is in accord with sound recognized practices and the highest known standards. Although, even without them, instances of such would be rare, they serve as powerful guards against exploitation of the patient, improper treatment, inaccurate diagnosis and neglect.

Having a basically similar function is the Tissue Committee which operates in practically every well-run hospital. This committee is also composed of hard-boiled experts from the professional staff. When a patient undergoes surgery and tissue is removed in the operating room, it is usually mandatory that it go to the laboratory, there to be examined by pathologists. If the pathological report is in anywise inconsistent with that of the surgeon, the matter immediately becomes one of interest to the Tissue Committee. If healthy tissue has been removed (and let me say, parenthetically, that this does not necessarily mean error or wrong) an explanation is sought and obtained. In the gratifyingly rare instances where unnecessary, incompetent or inexperienced surgery is suspected, careful investigation is made and such steps as are indicated are taken. These may range all the way from wise counseling to the limitation, suspension or withdrawal of surgical privileges. The relatively few instances in which drastic action of this nature is required gives eloquent testimony both as to the generally high caliber of skill and integrity of the profession and the effectiveness of such self-imposed safeguards.

Qualifications Committee

Another of the extremely important "behind-the-scenes" functions of the hospital's professional staff in these modern days of specialization, pertains to staff selection and qualifications. To me it goes without saying that only trained medical men are capable of passing upon the qualifications of those seeking staff affiliation. From a practical standpoint it would be utterly impossible for a governmental licensing body to inform itself and keep itself informed as to the type and degree and quality of the training and experience of every licensee throughout his medical career. Therefore, in order to insure properly balanced, trained and qualified hospital staff personnel, the profession itself, acting through staff members and the various specialty bodies of organized medicine, must

and does, at the expenditure of vast amounts of time and energy, assume that tremendous responsibility.

These professional staff functions are but a few examples of the system of self-imposed checks and balances to be found in typical modern hospital practice. If you have gained the impression that intra-professional regulation begins and ends there, let me correct an impression quickly. It *neither* begins nor ends there. In fact, it *never* ends but it is perhaps fair to say that it *begins* with the county medical society which is the backbone of organized medicine.

The vast majority of all doctors of medicine belong to their respective county societies. These county societies are the components of the state medical society and the various state societies are in turn the components of the American Medical Association.

Ethics Committee

Every county medical society has its Ethics Committee and its Mediation Committee. The Ethics Committee is charged with the duty of maintaining standards of conduct and discipline of members. Any conduct of a member which is prejudicial to, or tends to expose the medical profession or the society to contempt or reproach, or which is in anywise contrary to ethics, honesty or good morals, is within the sphere of authority of this committee.

The purposes of the Mediation Committee are to afford the public an informal means of making known to the profession any alleged grievance arising from a physician-patient relationship, to resolve misunderstandings and reconcile differences between physician and patient by means of persuasion and explanation, and to assist the Ethics Committee in maintaining among members high levels of professional deportment.

Thus, it will be seen the one deals with intra-professional situations involving questions of ethics or professional conduct; the other, with differences or misunderstandings between patient and doctor.

Pains are taken to see that these committees are always composed of leaders of the profession, men of unimpeachable character and unquestioned standing.

The Ethics Committee has the power and the duty to investigate, hold hearings, both formal and informal, and to decide the cases brought before it. The procedure is strict but fair and is carefully spelled out in the by-laws of the society. Procedure is uniform throughout the state. In the event charges against a member are not sustained, he is exonerated and the matter ends there. If the charges are sustained, the Committee, subject to approval of the society or its governing body, has the power to mete out discipline in the form of reprimand, suspension or expulsion from the society. An accused has the right of appeal to the council of the state medical society and ultimately, to the judicial council of the American Medical Association.

Mediation Committee

The Mediation Committee is not designed to be an investigatory or trial or disciplinary body but functions, as its name implies, solely in the area of conciliation. A typical example of the type of matter which comes before it is a patient's complaint that he has been overcharged by his doctor. In such cases the committee talks with the patient, investigates the facts and perhaps the patient's ability to pay. The committee members talk with the doctor, ascertain the nature and extent of the services and usually by means of explanation and friendly persuasion are able to iron out misunderstandings and eliminate friction which otherwise might lead to expensive litigation and certainly to bad feelings.

In addition to the basic societies which I have mentioned, there are, I believe, twenty-six national specialty organizations within the profession. Typical of these are The American College of Surgeons, The American College of Physicians, The American Academy of General Practice, The American Academy of Orthopedic Surgeons, The American Academy of Pediatrics, and many others. Each has high standards of education, training and conduct which must not only be met upon admission but must be maintained continuously thereafter.

Voluntary Discipline Groups

All this vast and complex machinery has for its ultimate purpose the better protection, the greater well-being, the better care of you, the patient—not imposed by law, not required by governmental decree, but devised and implemented by and within the profession itself, not perfectly devised, not perfectly implemented, not infallible, I grant you (perfection is not to be found in the works of

man), but certainly devised and implemented unselfishly, in the sole interest of the patient, and by the only group of men possessing the technical knowledge, the skill and the dedication of purpose necessary to the successful operation of such a system of controls.

A great deal of publicity has been given lately to a sensational piece of litigation involving a doctor and a hospital in a nearby county. I do not propose to discuss the merits or demerits of the specific charges and counter-charges made in that suit, but I do want to comment briefly on another aspect of it.

Hospital Qualification

The publicized issues are simple. On the one hand, a doctor charges that he has been unfairly dealt with and threatened with exclusion from staff privileges and, as a result, claims heavy damages. A hospital director, on the other hand, charges the doctor with many specific acts and omissions of an extremely grave character. If that were the extent of the controversy, it would be a deplorable one but not one of far-reaching consequence. If the sole issue were whether an individual doctor is a good doctor or a bad doctor, only a very limited segment of the public would be concerned. That is not, however, the basic issue in which the general public ought to be greatly concerned. That issue is simply this—who is to judge the qualifications of a member of the professional staff of a hospital? Is it to be the individual doctor on the mere basis of his holding a state license to practice medicine? Is it to be a governmental licensing body? Is it to be lay authorities of the hospitals alone? Is it to be the courts? Or is it to be the medical profession itself, acting through the professional staff of the hospital?

In this suit, as in at least three other recent cases in the state with which I am familiar, the claim is asserted that any doctor who holds a state license to practice medicine is entitled, as a matter of absolute and unlimited *right,* to practice in any public or semipublic hospital in the state. The right of the medical staff of such a hospital or of the hospital's governing body to make rules or regulations with respect to the qualifications of those practicing therein, or to grant limited privileges or withhold full privileges is directly challenged. The public's stake in that broad issue is an enormous one but one that seems to be quite generally disregarded by the press in favor of the more dramatic and sensational aspects of such controversies.

If such claims are upheld, and to a limited extent they have been upheld in one or two cases because of some unfortunate language in the statute under which a few public county hospitals are organized, you can depend upon the standards of medical and surgical care in our public and semi-public hospitals deteriorating.

Not only will such standards be impaired because of the resulting impotence of audit and tissue and qualifications committees but for another *vitally* important reason upon which I should like to comment briefly.

Many of you, no doubt, have some degree of familiarity with hospital accreditation, so-called. The accreditation of hospitals is carried out on a national basis and is the function of the Joint Commission on Accreditation of Hospitals. This commission is composed, I believe, of representatives of the American College of Surgeons, American Medical Association (and possibly other medical representatives) and the American Hospital Association. It sets up minimum standards with respect to facilities, personnel, operation and patient care and safety. Unless an accredited hospital maintains at least these minimum standards it loses its accreditation. Among the requirements deemed necessary for patient care and safety are adequate regulations governing the qualifications of medical and surgical staff members.

Of necessity, a hospital which cannot regulate or determine the qualifications of its professional staff cannot be, or remain, accredited. In turn, the lack or loss of accreditation means that it cannot carry on approved intern and residency training programs, thus forcing many interns, residents and student nurses to train elsewhere. It cannot participate in such approved programs as cancer control and others of vital importance to public health. It obviously cannot attract to its staff, under such conditions, the most highly trained and qualified physicians, surgeons, obstetricians, pathologists, nurses and technologists, with the inevitable result that it dooms itself to mediocrity or worse.

A Privilege, Not a Right

All this adds up to a practical guaranty of inferior medical and surgical care for a community obliged to depend upon such an institution. It is both tragic and ironic that such results should be

brought about in the name of the "right" to practice medicine. I deny emphatically that there is or should be such a right. The practice of medicine, just as in my profession—the practice of law — is not a right but a privilege and a *limited* privilege at that. It is a *privilege* to devote the knowledge and skill of the physician to the healing of his patients and not a *right* to lower the standards of medical care applicable to an entire community.

The great strength of the medical profession lies in the unselfishness and dedicated purposes of the overwhelming majority of the individuals of which it is composed. I know of no other profession nor business which can make the proud boast that it has no professional secrets except those between doctor and patient. A new discovery, a new technique, a new method of treatment—each belongs to the profession, not to the individual. Each is dedicated to the common good—not to the profit of the discoverer or developer.

Many of you, no doubt, saw the fascinating spread in *Life Magazine* a few weeks ago entitled "The Changing Pattern of a Nation's Health." That story points out how "the march of technology since the turn of the century has altered the face of the land." It recounts the virtual elimination of such childhood diseases as diphtheria and smallpox. It pictures dramatically the lengthening of the human life span. It shows, for example, that in 1900 only eighteen out of every 100 living Americans were forty-five years old or older. In 1957, twenty-nine were—a more than 50 per cent increase in this bracket in little more than a half century. The pictorial story of the ingenious devices used to chart the body's functions, the complex machinery of modern surgery, the building of banks of spare parts of the human machinery, all adding up to a tremendously impressive record of achievement by the medical profession.

These remarkable achievements are not those of men who regard the practice of medicine as a "right." In large measure they are not the achievements of individuals at all but of a unified profession. They are the result of the unselfish exercise by dedicated men of the priceless *privilege* of practicing medicine.

Latest Medical Progress

Under modern medical organization not only has the art and science of medicine advanced with tremendous strides, but, of equal importance, adequate medical care has been made available to a far greater proportion of the people.

This has been accomplished through the development of prepaid medical care plans which have been conceived, organized, implemented and operated by the medical profession itself. Michigan's own Michigan Medical Service—commonly known as Blue Shield—the first to be conceived anywhere, was organized by the Michigan State Medical Society, following the depression days of the '30's. It was developed out of a recognition of a crying need for the extension of medical care to more people who otherwise could not afford it. It was developed, not by insurance companies who were afraid of it, not by politicians or labor union leaders (who now seek to adopt it and turn it to their own ends), but by the doctors themselves out of a sense of public duty. It has worked—not with absolute perfection—but tremendously well. It has supplied a pressing need and, of vital importance to us all, has supplied it, not at government expense or under governmental or political control, but under the principles of a free enterprise system and a free profession.

That service is being constantly amplified and improved. Just recently the Michigan State Medical Society completed a mammoth opinion study designed to ascertain what the public wants and expects in this area in order that that service might be still further improved and extended on a sound basis. As a result, new and broader coverages and amplified services are now being offered the public.

Despite the fact that the medical profession pioneered and developed this type of service when practically no one else thought it could be done, there is, in some quarters, agitation today for adoption of the theory that others can do it better. From some sources the agitation is for governmental control and administration. From others it is for labor union control. In my judgment we need look only to the record of organized medicine in this country on the one hand and on the other to the socialistic experiences of other countries to convince ourselves that we had best leave medical care in the hands of a free and independent medical profession. Any program of medical care governmentally and poiltically controlled, or sponsored and controlled by lay interests, necessarily means, in my judgment, inferior medical care. Under such auspices it can only be administered by

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Admissions Procedure for Students Applying to the University of Michigan Medical School

By Robert G. Lovell, M.D.
Ann Arbor, Michigan

THE ADMISSIONS COMMITTEE devotes more time than is expended by any other standing committee in the University of Michigan Medical School in deliberation over the applications and eventual selection of those students who will make up the medical class. Because it is impossible to accept all who apply, it is necessary to select the men and women most likely to succeed as they venture into the long, highly technical, highly scientific, physically fatiguing, yet tremendously rewarding course of medical study. Since some individuals may be able to present themselves for consideration on only *one* occasion, having arranged their family and financial responsibilities and prepared themselves scholastically for a single attempt at admission, it is necessary that selection always be made accurately and equitably. If, through some fault of the admissions procedure, such young men and women were refused acceptance on that singular occasion, it is entirely possible they might be lost permanently to the medical profession. Furthermore, the extremely high cost of training a physician demands that there be a very low rate of loss in students who undertake medical studies.

Prominent in the consideration of evaluation of an applicant to medical school is the fact that scholastic excellence by itself is insufficient. Choice of a medical student, in reality, is equivalent to the selection of a physician. Tradition and the heritage of the profession dictate that the doctor must have the stability of personality to carry the emotional problems not only of his own life but also those of his patients; that he possess the strength of character which will permit him, often without supervision or accounting to anyone but himself, to deal with human life in an ethical fashion; that he be so dedicated to the healing art that he will continue to study and learn and keep abreast of developments as they occur. Thus, he never becomes obsolete through neglect of his professional growth. It is with these facts in mind that the Admissions Committee applies itself to its work.

Dr. Lovell is Associate Professor of Internal Medicine, Assistant Dean of the Medical School and Chairman of the Medical School Admissions Committee, University of Michigan Medical School.

Why a Committee?

The individual prejudices in a group tend to neutralize each other. By studying each applicant carefully, the various committee members find more and different aspects of the credentials worthy of consideration than could any single selector. It is to such a committee, composed of faculty members of the University of Michigan Medical School, that applications are presented by those who would enter this school.

Selection Solely on the Basis of Merit

It can be asserted quite strongly that influence —political, social, or economic—plays no part in the selection system. The Admissions Committee works on the premise that its chief responsibility is to select those who will develop into the best physicians. In this work they are not required to compromise because of various sources of pressure. The student who is qualified can assume that he will be judged on the merit of his own record and that he will have a good chance for acceptance. It is worth considering in some detail the steps through which an application goes, and the features about it which the Committee observes, before a final decision is reached regarding its merit.

The Mechanics of the Application Procedure

Applications to the University of Michigan Medical School are received each year between September 1 of the year prior to the fall in which the student will commence classes, and the following March 1. By continuing to receive applications until March, Michigan is one of the last schools in the country to close its applications. It is

felt this procedure affords the student who has not achieved academic strength until the end of the first semester of his junior or senior year a chance to decide relatively late to make application to medical school. The only single restriction which this Medical School imposes is a geographical one. Being a state institution, the feeling prevails that it is a prime obligation of the University to train those sons and daughters of the taxpayers of Michigan who carry the burden of its cost, in reality about $15,000 for each medical student.

Accompanying the application form is a page of instructions which points out the problem of geographic consideration in selection and some other items which may prevent needless application on the part of those who cannot be considered. For example, the student who has been dropped from another medical school must direct his effort for reinstatement to his parent medical school. Likewise, the applicant who has D's in the required subjects, physics, chemistry and biology, cannot expect to be accepted until the deficiencies have been removed either by successfully repeating the courses, or by taking others of equal academic difficulty. It is possible to accept some out-of-state students, but their credentials must be superior since competition for the few places available is keen. Naturally a high grade of scholarship, personal qualification and promise must be demonstrated. Finally, the student with an academic average below a strong C+ is encouraged not to apply until he has taken further academic work to bring up his scholastic standing.

The application, together with a brief autobiography and a processing fee of $5.00, is sent to the Medical School office. The papers are placed in a folder, a receipt is sent to the student and the nonreturnable fee is forwarded to the University cashier to be placed in the general University funds.

Letters of Recommendation.—The student, meanwhile, must initiate additional action in order to complete his application. It is necessary for him to present a letter from at least one science teacher and from one instructor in a course which is nonscience in nature, giving support of the applicant's character, his classroom performance, and his promise as a physician. These two letters are all that actually are required. Additional letters are not expected and do not enhance greatly the status of the application. As noted above, they merely support the character of the student.

Personal Interview With Premedical Teachers.—There is a great advantage in personal contact between members of the Admissions Committee and the premedical advisers. In order to make use of this means of communication, members of the Committee each year make trips to many of the colleges in Michigan where they not only interview and counsel a number of prospective medical students, but also they meet with the premedical teachers and discuss the applicants and questions of mutual interest. At these meetings progress of the former students from the colleges visited now at the Michigan Medical School is reported, thus giving the teachers a follow-up account of how their products are performing.

Transcripts.—A second responsibility required of the student is that he contact all of the institutions of higher learning which he has attended and request that each registrar send directly to the Medical School office an original transcript of all work which he has completed up to the time of application. He also must, if offered an acceptance, and in order to meet eventual licensure requirements, submit a transcript of his high school work. Working on the four point standard in which a letter grade of C equals two honor points, the Registrar provides the Admissions Committee with the grade point average obtained for the prerequisite courses, and also with the over-all grade point average for the total acceptable courses. Some confusion occasionally may result over the final grade point average determined in the Medical School office, since students often fail to realize that they cannot receive credit for such courses as physical education, music, fine arts, and other special subjects which actually are listed in the school catalogue as being unacceptable. The student's grade point average is available to the Admissions member at the time of the interview, and is made known to the Admissions Committee before it arrives at its decision. A minimum acceptable grade point average of 2.5 is required for acceptance to the Medical School.

The Autobiography Accompanying the Application.—Most students have little difficulty in preparing an acceptable autobiography since they seem to sense what is required of them and pre-

pare a brief, informative communication which acquaints the Admissions Committee with their background, family relationships, educational experiences, and extra-curricular activities. In reading over the autobiography, the Admissions Committee looks for a demonstration of the applicant's ability to write in an acceptable fashion, regards the care with which the paper is prepared, and takes note of incomplete sentences and misspelled words. But in addition, it looks for evidence of careful thought given to the preparation for the study of medicine as evidenced by comments concerning contact with people informed about the activities of a physician; it looks for reported experiences in working in some field of medical science; for reference to having read books on medical subjects; for indications of concern for and an interest in biology or in some other science which is involved in modern medicine. Furthermore, some evidence of interest in one's fellow man is sought, either by evidence of participation in group activities, camp counseling, or leadership experience in clubs or societies in the college extra-curricular program. This is felt to show outward indication, at least, of ability to establish satisfactory interpersonal relationships. Finally, other signs are looked for, namely, indications of genuine motivation for the study of medicine.

The Personal Interview.—During the winter months, it is possible to meet personally almost all students who apply. A majority of them are interviewed by a member of the Admissions Committee who devotes part of his time to conducting this aspect of the application process in the Medical School office. Some students, as has been noted, are interviewed on their own college campuses during the annual meeting between Admissions Committee members and the premedical teaching staffs. Other applicants, who are geographically so far away that a trip to Ann Arbor is not feasible, are interviewed by an Alumnus of the Medical School, usually a practicing physician personally known to members of the Admissions Committee and living in the region where the student can contact him easily. In such a case, the student is notified by mail that his application can be given further consideration after he contacts the doctor named and has a brief interview with him. It is pointed out to the student that the doctor is expecting him to call, and the applicant is asked to notify the Medical School office at once in the event the doctor is not available. At the same time, the Alumnus is notified and is asked to provide the Medical School office with the information usually obtained at a personal interview. Invariably, the doctor so contacted considers it an opportunity to participate in the tradition and growth of the profession, and he forwards a complete evaluation carefully prepared for the Admissions Committee together with his opinion of the applicant's potential for success in medicine. Of approximately 700 applicants, perhaps fifty are interviewed in this way in any single year. In Ann Arbor, where most of the interviews are held, the student, after his application form, transcripts and autobiography are received, is contacted by mail or by telephone and is asked to come to the Medical School office for a thirty-minute appointment. Upon his arrival, he is provided with a form on which he indicates any serious illnesses, including emotional disturbances, which he has had during the past five years which have required the attention of a doctor. He further lists any health problems or physical handicaps which he has. This information is essential to obtain, since it is necessary in the case of a student who has had a health problem to seek a medical clearance from his physician concerning any condition which might be aggravated or reactivated by the vigorous physical and emotional strain which medical study entails. It is appropriate at this stage of the application procedure to request that the student obtain from his family physician a letter outlining the medical nature of his illness together with the doctor's recommendations concerning the applicant's suitability to undertake the study of medicine at this time. Without such medical clearance, a student might launch into a disastrous increase in physical or mental activity which could result in great hardship to him and his family.

A recent survey of students accepted to medical schools, conducted in 1957 by the Association of American Medical Colleges indicates that they were more critical of the *interview* experience than of any other portion of the application procedure regardless of the school considered.[1] For this reason, considerable attention now is directed toward a favorable environment, a skilled inter-

[1] *Questionnaire Analysis, 1957 Institute on Evaluation of the Student, Association of American Medical Colleges, Meeting Oct. 15, 19, 1957, Atlantic City, New Jersey.*

viewer and a specific purpose for which the interview is conducted when the student comes for his meeting. Occasionally an applicant is interviewed by more than one member of the Committee, but in general it is felt that better rapport can be established if the evaluation is conducted by a single member. In contrast to some types of interviews, it is the policy of the Admissions Committee to conduct its meetings with an applicant in an optimistic atmosphere, where there is friendly conversation, a search for facts and expressions without any taint of a "board of review," a "court," or an inquisition. The following areas of the applicant's performance are evaluated during the course of the interview:

A. *Academic Performance.*—During the actual interview, the credentials including grades are available to the member of the Admissions Committee.

B. *The Medical College Admission Test.*—There are four different sections to this test, the first two involve general ability and include (1) verbal understanding and (2) mathematical or quantitative ability. A third section evaluates the applicant's understanding of modern society, and a fourth samples achievement in science. The verbal and quantitative ability tests measure the applicant's skill and aptitude, and in general predict rather well his success in postgraduate professional studies. Ordinary reading and mathematical ability are the only requisites for successful performance in these areas, but emphasis is placed on skill and ability to handle new problems and relationships. Specialized training is not necessary for achieving high scores in these areas. In the section on understanding modern society, the applicant is measured in regard to his general social awareness, and he is tested in his information concerning history, economics, government and sociology in the contemporary scene. Again application of basic concepts is stressed and no particular special training is required other than regular reading of a newspaper and an average interest in current events. The science test measures rather accurately the applicant's fund of knowledge of principles of science, and elicits his familiarity with basic courses in biology, chemistry —both inorganic and organic—and physics. Advanced science subjects beyond the basic fundamental areas give little additional strength to the applicant, and it has been shown over the years that students who take more science courses do not do significantly better than those who cover satisfactorily only the basic courses. In the event that the score is low enough to suggest inadequate preparation, a medical school can request that an applicant repeat the test again.

C. *Academic Reserve.*—Early in the course of the interview it is worthwhile to determine rather accurately the amount of study which a student has invested in order to achieve his academic record. It is expected that a college student with average ability, taking perhaps fifteen to seventeen semester hours, should be able to carry a successful academic program with approximately three or four hours of study five nights a week, with an additional study period of varying length during the weekend. In the event that time much in excess of this is devoted to study, it may indicate either that he has poor and inefficient study habits, or else it suggests that he is working at maximum capacity, and may be expected to encounter difficulty when he undertakes the additional breadth of medical school work. Most medical educators agree that the first two years of medical school are not particularly harder than the liberal arts work, but there certainly appears to be a need for efficient study capacity. If he appears to be working at top speed in his final year of premedical work, even though he may have a very fine grade average, a certain amount of doubt is justified concerning the applicant's success as a medical student.

D. *Extra-Curricular Activity.* — Considerable criticism, some of it justified, is aimed at the present-day physician because of his apparent preoccupation with science and his seeming disinterest and unfamiliarity with the socio-economic problems which confront his patients. There may be a trend in the modern physician's routine away from his being a familiar figure in the family who is available to carry the medical responsibilities of this group and away from his being a counselor who can be called upon to offer accurate enlightened advice on numerous matters which trouble the average family. Medical educators are keenly aware of this criticism and are attempting to select those men who are to be our future physicians from the ranks of students who appear to be sincerely interested in their fellow men.

E. *Source of Motivation.*—During the course of the interview it is worth while, after reviewing the autobiography, to ask again concerning the sources of motivation toward medicine which the student has. In general, the applicant who indicates that he has a love for science, particularly in the area of biology, who does well in the college courses in science, and who also enjoys working with people individually and in groups, and who has had an opportunity to observe the activities of a physician either through friendships, reading, or through pointed trips to the family doctor or to the community hospital where he has been given a chance to observe medicine at work, is most likely to be well motivated and is a good candidate for consideration for acceptance. By following this approach in their selection scheme, most medical schools now are able to carry through successfully all but about 8 per cent of their medical classes to graduation. This is really a fine performance and attests to the efficiency of the admissions procedure. But for every student lost there is a double tragedy of the potential physician who will never practice medicine, and also the opportunity missed by the applicants who could not be taken because the individual who failed was given the place.

F. *Social Conformity.*—Because the student who is selected to be a physician is expected to be a leader in his community, a responsible member of society, and a stable individual capable of providing leadership, most admissions committees feel that the majority of applicants accepted should conform to the social mores of the community and should demonstrate sufficient emotional stability to have a reasonable chance of leading a successful, happy life within the boundaries of conventional living in society. In general, the successful physician, whether he be in general practice, or a full-time research worker, must have stability. The individual so highly developed in one area of his capacity that he is unable to adjust emotionally, economically, or socially, often is a failure in the profession and might well be encouraged to pursue some field other than medicine.

G. *Financial Consideration.* — The student entering the University of Michigan Medical School is expected to be able to finance the first year of his studies without help from the University. This period is considered a trial investment for the student during which he establishes himself as a scholar. It is estimated that he will need about $1,600 in addition to tuition to live in Ann Arbor during the school year. After the first semester, in unusual cases, and in the subsequent years, loans, scholarships and grants in aid are available with which to help needy students. Efforts are nearly always successful to find some combination of loans, scholarships and part-time employment to keep the student in school.

The Selection of a Physician

In choosing a future physician, the admissions officer, with the material at hand, must attempt to select an individual who will become a competent physician, either through the strength of his *personality,* or by means of his splendid accomplishments as a *scientist.* Better yet, as the "physician's doctor" through a skillful combination of fine personal characteristics with an enlightened application of science it is hoped that the best representatives of the profession will be selected on the basis of both accomplishments. Through the tone of the interview, the letters from the applicant's teachers and from others who support him, together with the score of the Medical College Admissions Test and the academic transcripts, the admissions officer searches for early signs of this ideal mixture of character and scientific competence. No medical school can train only "researchers," only general practitioners, or primarily those who will enter academic medicine teaching or research. The school must develop them all, and must have one standard of performance expected from all who would carry the title Doctor of Medicine. Some of the specific traits sought by the Committee and felt to be needed in the personality of any physician are considered:

A. *Evidence of Curosity.*—It is upon this characteristic that the student will learn to observe and thereby to make accurate diagnoses. His medical training and the sharpness of his skill in practice after graduation will depend upon his curiosity.

B. *Breadth of Interest.*—At an early stage of the student's training this is an important factor in providing him with a proper background for adequate knowledge to care for the sick. The presence of interest in a great variety of non-

medical subjects also contributes to the strength of the physician's personality.

C. *Capacity for Flexibility.*—The need to change one's opinion, to learn new techniques and to discard old ones, and to modify one's routine become commonplace in the pattern of life of every competent doctor. Even the medical student must develop flexibility of a greater degree than he previously had. He must recognize conflicting points of view in his teaching, opposing results in the studies of his patients and yet he must arrive at a proper conclusion and reach the correct diagnosis.

D. *Evidence of Initiative.*—Most succesful applicants to medical school show appropriate initiative. In the medical profession one is his own boss, and success or failure depends to a great extent upon one's drive and the energy with which he undertakes responsibilities.

E. *The Characteristic of Optimism.*—This admirable trait in a physician is useful since there are many times in the course of his work when he must bolster his own courage and that of his patient. It is a well-known observation that if the physician gives up at a critical time his patient likewise will stop fighting for the thing which is so essential to him.

F. *The Trait of Idealism.*—This feature of the personality is seen universally in applicants to medical school, and must be measured and observed as it changes from its early untried existence when the student identifies himself with a particular physician and decides to study medicine, until the idealism mellows and becomes a practical source of spiritual support and a part of the integrity which carries the successful doctor through his professional life.

G. *Emotional Stability.*—This trait, so essential to the medical student and to the practicing doctor, becomes apparent early in medical training. It is good in one sense that there is considerable stress associated with medical study. This indeed is a testing area in which the student who is immature or poorly adjusted encounters sufficient emotional reaction to prevent his successful completion of the early courses. It can be assumed that the student will experience stress in his own life and also later will be expected to carry some of the emotional load of his patients, their relatives and friends. Combined with emotional stability, the Admissions Committee must try to detect the presence of quick, sensible judgment, which will be available when the applicant is under stress.

H. *All-important Integrity.*—This aspect of personality would be classified by most Admissions officers above ability in the physician. Doctors, according to Alvarez, like eggs, are either good or bad. There is no place in the medical profession for a mediocre physician. All Admissions Committee members feel that lack of integrity is incompatible with being a member of the medical profession.

I. *Warm-heartedness.*—As a final but very important characteristic, the Committee looks at the applicant for his capacity for sympathy, appropriate and sincere enough to provide a patient the support which he needs, and yet which is sufficiently restrained to permit the doctor to continue to be effective in time of need. The identification of this trait is difficult and often can only be guessed at by the reported interpersonal relationships in the applicant's letters of support.

The Admissions Committee Meeting

The actual admission of the applicant to medical school is determined by a committee decision. The Admissions Committee is selected by the Dean of the Medical School from its faculty, and is composed of seven members of the senior staff. Usually there are two representatives from basic science subjects and two from clinical departments. Likewise, there is a psychiatrist, and a woman faculty member, together with the faculty secretary and the Chairman of the Admissions Committee. Starting in September, the group holds weekly meetings. Here consideration is given to the applicants whose credentials are complete, including the interview, and therefore are ready for final consideration. The Committee meets in a group and is provided with a folder for each candidate. This contains all the material available at the interview together with a brief paragraph by the Committee member who held the interview. The records are rotated around the conference table and each member is at liberty to read all of the available material in the file. Upon reaching his independent decision, a member records his score on the back of the file and

passes it to the next member of the Committee. This provides for individual evaluation by each member. The scoring is rated from one to four and represents a sum-total evaluation of the credentials. The Committee feels that an over-all review of a candidate's file is superior to any system of rating by percentage, or by any other means, the various components of the application and assigning a certain significance to any part of the credentials. It is quite possible that the interview, for example, is a rather ineffective and unreliable means for detecting which students will do well in medical school, and also which will develop into the best physicians. Likewise, the letters of recommendation together with the individual's autobiography might actually be more a measure of his popularity and personality together with his ability to write than an evaluation of his promise as a doctor.

If, as the Committee rates the applicant's folder the ratings are ones and twos, he immediately is offered a tentative acceptance. The faculty secretary is instructed to inform the applicant, and this is done by mail or sometimes by telephone. The acceptance is tentative since often there are a few hours lacking in some premedical subjects, and these must be completed satisfactorily in the subsequent school semester before the final acceptance is granted. In accord with the ground rules of the Association of American Medical Colleges, payment of a nonrefundable deposit is not necessary until January 15 of the year in which the student will begin classes. If acceptance is granted after January 15, the applicant is given two weeks to deliberate before he must submit his deposit.

If a rating of three is given to a folder by a Committee member at the completion of the circuit after it has been seen by all present, the faculty secretary asks the member of the Committee who rated the applicant in question to support his vote of 3. At this time the member can explain more fully why he feels that the student should not be more favorably considered. The chairman of the Committee next tries to obtain a decision by the group. If the dissenting member does not strongly favor holding up of the acceptance, or if the others feel that acceptance is justified in spite of the dissenting vote, acceptance is granted. When it is noted that several threes are recorded on a folder, it is held for later consideration by the Committee and subsequently the candidate either will receive a rejection or a late acceptance in the spring of the year if there still is room in the class. A vote of four automatically will hold up the application and will not permit its acceptance until the point in question has been clarified. A rating of 4 may denote a deficiency in the credentials, a lack of a Medical College Admission Test score, or it may call attention to some aspect of the application which is felt to be below the acceptable standard. A single vote of four is subjected to the same review by the entire Committee as is a single vote of three. More than one vote of four, unless there is an apparently correctable defect in the credentials, results in the applicant being sent a letter of rejection.

Applicants Who Are Deferred.—In the event there is some feature of the application which raises a question concerning the student's suitability, action may be deferred on recommendation of the Committee until clarification of the point in question is undertaken.

If the student is found to be academically weak, it may be that the Committee will request that he send in additional reports of his scholastic work as they become available. It often is possible, with some additional scholastic work, for a student with a grade point average below the minimum to bring his standing up to an acceptable level.

*Psychiatric-Psychological Consultation.** — It occasionally becomes apparent to the Admissions Committee that some aspect of an applicant's personality may require professional personality evaluation. Or, possibly there may be a great disparity between the grades of the Medical College Admission Test and those of the student's college work which cannot be readily understood. It is strongly felt by the Medical School faculty that every means available should be taken to measure emotional and intellectual capacity *before* the student is admitted to medical school. For this reason, approximately 1 per cent of applicants are given a supplementary psychological evaluation without cost, prior to final consideration.

If it is indicated, the Committee is prone to refer the student to the Department of Psychiatry of the Medical School in the hope that a study of the candidate's personality may yield new evidence or explain the contradiction in creden-

*Prepared by Thornton W. Zeigler, Ph.D., Assistant Professor of Psychiatry and Chief Psychologist, Neuropsychiatric Institute, University of Michigan, Ann Arbor, Michigan.

tials so far presented. If the staff psychiatrist who sees the student wishes to do so he may refer the candidate to the Neuropsychiatric Institute Psychology Unit for further evaluation. In this case, the psychologist, one of the senior and more experienced members of that staff, usually feels it necessary to evaluate the applicant from the standpoints of intellectual capacity, of emotional stability, and in a very general way of his preparation as a student. For this study he chooses from among a number of tests, the most usual of which are classified and described below. These tests are individually administered.

Intellectual Capacity:

We have had psychological tests in this area for well over sixty years. In general these tests which are all somewhat alike are made up of a series of questions or tasks embracing reasoning, memory, spatial planning, word meaning, calculation and abstract thinking. Our psychologists choose from among the following tests of general intelligence—the Wechsler-Bellevue Intelligence Scale, the Wechsler Adult Intelligence Scale and the Revised Stanford-Binet Intelligence Scale.

General Preparation:

These tests in our battery are designed to measure the applicant's reading proficiency and the adequacy of his study habits. The reading tests measure vocabulary attainment and the accuracy with which the examinee can answer searching questions about paragraphs which he has been asked to read. They are similar to, but at a higher level than, the reading parts of those academic achievement tests which are given in almost all school systems. In the study habits inventory the applicant's answers to questions about his methods of study are compared with answers which were given by young people who had proved to be good students. In our battery we use the Nelson-Denny Reading Test and the Wrenn Study Habits Inventory.

Emotional Stability:

In this area we use tests of the projective variety which are widely used in psychological and psychiatric clinics. These tests may require the applicant to tell us what he sees in ink blots or that he tell us stories about pictures we show him or that he complete a sentence in which only the opening words are supplied. In any of these tests an almost unlimited variety of responses can be given and the personality of the subject is revealed in the way in which he handles the task imposed by the test. These tests include: the Rorschach Psychodiagnostic (the ink blot test), the Thematic Apperception Test (the picture stories), and an Incomplete Sentence Test.

The advantages which the tests in each of these groups present may be summarized briefly in the following paragraphs.

The Intelligence Tests, while primarily designed to measure intellectual capacity (is the student bright enough to try this difficult educational program?), also tell us something about the efficiency with which the student can use his intelligence. Often a study of the wrong answers on these tests will reveal an emotional illness (neurosis or psychosis, incipient or actually present) or a reduction in ability secondary to damage to the brain itself.

The tests of general preparation, study habits and reading, never are made the basis for a recommendation or a rejection. The reading tests are useful because they turn up evidence of a reading handicap in some students, and often they can get help in this area if they wish. Often, too, the poor reading may explain some of the discrepancy in the Admissions Committee's original material. The study habits inventory is similarly helpful with students who have not developed systematic methods of studying.

The tests of emotional stability taken together or separately, help in evaluating the student from this standpoint. Again, the presence or absence of neurosis, psychosis or organic damage, and how important this may be as an explanation of the applicant's conflicting records is the point of major interest. These studies, however, may also serve to throw light upon the possible causes of the erratic test performances as well as to give an idea as to prognosis, should the applicant undergo some kind of psychiatric treatment. The psychological report is returned to the referring psychiatrist, who incorporates it into his own findings in a report and recommendation to the Admissions Committee, which then acts upon the now augmented material pertaining to the student's application and renders its decision on the basis of the complete data before it.

Other Reasons For Deferment.—Lack of a score for the Medical College Admissions Test may cause a delay in action by the Committee. This Medical School, in fairness to those who have taken the test, does not grant acceptances until the score of the MCAT is available.

It is necessary also to delay notification of tentative acceptance until both letters of recommendation are in the hands of the Committee. To do otherwise would defeat the splendid cooperation which now exists between premedical advisors and the Admissions Committee. The

faculty letters are considered among the most important items in the credentials of an applicant.

Further Action of the Admissions Committee

If it is the decision of the Committee to refuse an applicant, he is sent a form letter of rejection. A representative of the Admissions Committee is available to go over the credentials at a return appointment during the summer with the applicant in order to point out how he might strengthen his chances for subsequent acceptance. It is a general policy for an application which has been rejected for one year not to be reviewed for admission consideration during the same year; however, the chairman of the Committee upon receipt of any new information which might change the status of an applicant is free to reopen the case. This is done in order to prevent any technical problem, which might not be the student's fault, from influencing his acceptance.

The Activities of the Accepted Student.—As soon as an applicant is granted a tentative acceptance, he is sent a letter notifying him of this, together with a form to be used for requesting his Draft board for deferment through the period of his medical school training, together with a physical examination form which is filled in by his personal physician and returned to the University of Michigan Health Service for medical clearance. The fifty-dollar deposit which the student makes is applied toward his first semester's tuition. The last action of the Admissions Committee, through the Registrar of the Medical School, is to grant final acceptance to each of the selected students when all requirements have been met. The Admissions Committee turns over the accepted class list to the Dean's office and to the student leaders who will be responsible for the orientation program held immediately before the start of classes each September.

Advanced Standing.—No student is admitted to the Medical School by a route other than through the Admissions Committee. Students occasionally transfer to the Medical School during their second or third year, and they are considered in the same way as are new applicants. However, such transfer students must meet certain additional specifications. They must have a B average in their parent medical school and must come from the upper one-half of the class. They also must be recommended by the dean of that school. It is difficult to accept many students for transfer because of the large classes and the curricula of the schools vary so much that it is a complicated undertaking to adjust the transfer applicant's credits and to provide opportunity for him to make up any courses in which he is deficient before he can undertake his advanced studies at Michigan.

Summary

The selection of a medical student, because he actually is a physician in training, is one of the greatest responsibilities which can be undertaken by a medical faculty. Because not all who would seek to study medicine can be accommodated in the medical schools of this country, a great deal of deliberation and care must be devoted to the selection of those students most worthy of being permitted to undertake medical study. The Admissions Committee, made up of members of the Medical School faculty of the University of Michigan, devotes more time in its labor of the selection of students than does any other standing committee in the Medical School. Each application is considered on an individual basis, and many features other than academic performance are scrutinized. Most places are awarded to the sons and daughters of residents of Michigan, since it is their tax money which supports the School. However, out-of-state residents are given consideration for admission, and it is possible to accept a small number of those with superior credentials as they will do much to keep the academic caliber of the class high, and upon graduation, they will continue to promote the best interests of the state and of the University in the geographic area in which they practice. The admission procedure, though somewhat cumbersome, is the result of many years of effort to produce the most equitable and the most accurate means for selection of those who would carry on the practice of medicine at its high professional level in this country.

Human Diseases from Animal Carriers

By F. H. Top, M.D., F.A.C.P.
Iowa City, Iowa

ANIMAL DISEASES transmitted to man and called "zoonoses" have been of importance since antiquity. From descriptions in the Bible, it is likely that a pestilence associated with the presence of large numbers of "mice" was probably bubonic plague and one reputed to have destroyed many animals including camels, sheep, oxen, asses and horses probably was anthrax. Rabies was known before the time of Christ and mentioned in the works of Aristotle and Plutarch. It is likely that scrub typhus or "tsutsugamushi fever" occurred in the sixth century A.D. and louse-borne typhus in Italy in the eleventh century. In early times control measures antedated knowledge concerning the infectious nature of disease.

The discovery of the causative agents of disease in the "golden era" of bacteriology focused attention on diseases pathogenic principally for man. The zoonoses were important but were overshadowed by the outbreaks of infection peculiar to man. It is only recently as human infections have been well controlled that attention has again been called to the importance of diseases for which man is not the natural host, but which he may contract because of his presence among or activity with animals, principally domestic.[5]

Around 1900 there was a decided change in the infectious disease picture. The great epidemics of the nineteenth century had disappeared, except influenza, and deaths due to many of the infectious diseases began to decline. With discovery of the causative agent of many diseases, control measures were more readily applied and isolation and quarantine regulations became rather strict. In 1910 a personal hygiene movement was under way and shortly thereafter a consciousness of community health was more in evidence. In the first three decades of the twentieth century marked changes took place in water purification, sewage and waste disposal and in milk and food sanitation. Active immunization for smallpox, diphtheria, tetanus, whooping cough and typhoid fever and the wide use of sulfonamides and antibiotics contributed in no small way to the changing character of infections.[9]

For most zoonoses, an animal is the natural host and man the incidental host. In some instances both animals and man are hosts and finally, man may be the natural host and the animal the incidental host with the possibility that in turn the animal may transmit the infection to man.

The number of zoonoses is rather formidable. Hull[3] cites 115 diseases in this category while the World Health Organization Expert Group on Zoonoses[4] places eighty in this group. Nearly eighty zoonoses have been described in the United States and some forty in Iowa, but many of them are of infrequent occurrence. An attempt will be made to give synopses of diseases of importance as well as a few that have something remarkable about them.

Rabies.—Rabies is not commonly transmitted to man, but is a disease much feared because it is invariably fatal. The causative organism is a virus which is spread by saliva of rabid animals through a bite. The dog is generally thought to be the offender, but in many areas semi-domestic animals and wild animals such as the fox, coyote, skunk, and racoon have been more commonly implicated. In fact, any biting mammal may spread the disease and recently bats have been implicated. The saliva of rabid animals is infectious for three to five days before the clinical onset in the animals and remains so throughout the clinical course. Man is an accidental host.

The disease is world-wide with the exception of its absence in the Pacific Islands, Australia and New Zealand where it has never appeared. Rabies has been eradicated from the following countries: Holland, Belgium, Scandinavia and Great Britain. This has been accomplished by very strict quarantine. Sentiment connected with dogs and cats as pets has made control in the United States rather difficult, but it is possible to control this effectively

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Dr. Top is Professor and Head, Department of Hygiene and Preventive Medicine, and Director, Institute of Agricultural Medicine, State University of Iowa College of Medicine.

by means of inoculation of all dogs in an area with rabies vaccine, education of the public, stray dog control, and reduction in the wild life reservoir. To insure success of the control program the community must be educated to the fact that rabies can be eradicated. All owner-dogs must be licensed and vaccinated, stray dogs must be put under control by use of an adequate number of dog wardens, mobile units and detention pounds.

Dogs have been successfully vaccinated for several decades and the antigen most commonly used in the past has been the Semple phenolized nerve tissue vaccine, which has not maintained protection for a long enough period of time. A newer vaccine is a chick-embryo live virus type which has been attenuated by forty or more passages through chick-embryos until no longer infectious for dogs. This vaccine provides a longer immunity than the Semple vaccine, as indicated by experiments reported by the Communicable Disease Center of the U. S. Public Health Service at Atlanta.

Prevention of disease in man is largely predicated on control of the disease in domestic and semi-domesticated animals. Post-exposure treatment of persons bitten by rabid animals is well outlined and delineated in the report of the World Health Organization Expert Committee on Rabies, released in 1957.[10] The local wound must be treated immediately by thorough cleansing with soap or a detergent solution. Zephiran chloride in a 1 per cent solution has proved effective in laboratory tests. Puncture wounds not easily reached by the cleansing agents should be treated by use of concentrated nitric acid. This will have to be introduced carefully into the depths of puncture wounds. The use of hyperimmune rabies antitoxin is highly recommended by the WHO committee. The experience in 1954 in Iran in which a rabid wolf bit a number of persons in a small village indicates that the use of antitoxin and vaccine results in fewer deaths from rabies in humans than the use of the vaccine alone. It has also been demonstrated by Habel and Koprowski[2] that antirabic vaccination in man leads to antibody formation only after the fourteenth day, but that antibody is present immediately in suitable amount when the hyperimmune rabies antitoxin is used in conjunction with vaccine. There is some interference to antibody formation because of use of antitoxin but this is so slight that utilization of both substances is warranted.

Psittacosis.—Psittacosis is a virus disease natural to Psittacine birds like parrots, and to love birds, canaries, pigeons, ducks, turkeys, chickens and some others. Man is incidentally infected by contact with the droppings or nasal discharges of the birds. Whereas the liver and spleen are principally affected in animals, in man the lungs are primarily involved and the clinical picture resembles an atypical pneumonia. The incubation period in man is six to fifteen days. Illness for the first week or ten days involves a fever of undetermined origin and a dry, non-productive cough. Early in the course of the infection chest x-rays of the patient are negative. The disease can be severe and deaths do occur. Transmission is principally by means of contact with birds.

Control of psittacosis is very difficult and restrictions once severe have now been modified because numerous birds are involved, including domestic fowl. Many birds do not have manifest disease but are shedders of the virus. Bird fanciers often take liberty with a bird with enhancement of chances for infection. Some people allow a bird to pick seeds from between their lips. Others allow birds to fly around in a room and contaminated dust gets into the air in this manner. In addition, the droppings of birds dry and disintegrate into a powdery dust which when agitated by air currents may contaminate the air and be inhaled by humans. If the disease is recognized early it is modified in severity by the use of a broad-spectrum antibotic or by choramphenicol.

Lymphocytic Choriomeningitis. — Virus which causes lymphocytic choriomeningitis in human beings occurs naturally in white and house mice, monkeys, dogs, guinea pigs, roaches, and perhaps in ticks. In man it causes an influenzal like disease which results in a mild meningitis with a relatively short clinical course. Few human cases have been verified, but for these it has been determined that they had likely contact with mice. In households where cases occurred, trapped mice were found to harbor the virus, which was found in droppings obtained on the premises. Man contracts the disease by contact with contaminated food or by inhalation of dust or contact with it. The disease is not communicable from man to man. Control of the infection is largely one of cleanliness and good housekeeping with elimination of mice in the household. No vaccine is available and treatment is nonspecific.

Influenza.—The recent worldwide outbreak of Asian Influenza has raised again the question of the origin of influenza. Shope[7] discovered that swine influenza could be caused by a bacterium or by a virus. When either of the causative agents were found alone disease in hogs remained mild; together they caused a severe infection. Shope felt that there might be a relationship between human influenza and swine influenza and questioned whether swine might not be the inter-epidemic carriers of the virus component. Payne[8] reported Asian Influenza virus recovered in pigs in Manchuria, the Asian strain being isolated from the lung of a pig in June of 1957. There had been an epidemic of influenza among pigs in Manchuria in mid-March. Work is now under way attempting to determine whether Shope's concept can be verified by a study of influenza in hogs during and following the Asian Influenza epidemic.

Anthrax.—Anthrax is a disease of bacillary origin which causes a skin condition in man, but infrequently so. The reservoir of infection is the tissue of animals and their contaminated hair, wool and hides. It is a disease of cattle, sheep, goats and horses. The mode of spread to man is by direct contact with contaminated articles such as shaving brushes, the inhalation of spores resulting in pneumonia or by the gastrointestinal route through eating of meat. Occasionally a human case results from accidental laboratory infection. In animals the disease is spread by contaminated soil or by contaminated meat, bonemeal or feeds. This disease is rarely communicated from man to man. Its control is greatly enhanced by disposition of carcasses under the direction of a veterinarian. Suspect animals should be isolated or treated. Where the disease is known to be prevalent, animals should be inoculated with a vaccine. Wool and hair sorters should be protected by the sterilization, washing and disinfection of hair, wool and hides which they must come in contact with. If recognized early enough, treatment by penicillin and the tetracyclines is of value.

Brucellosis.—Brucellosis is one of the most common animal diseases transmitted to man. It causes a generalized infection with a slow onset, regular bouts of fever, headache, backache, weakness, chills and sweats. The clinical course may continue for days to months. The source of infection is tissues, blood, urine, milk and placentas of cattle, swine, sheep, goats and horses, as well as the vaginal discharges or aborted fetuses of the same animal. Also, the disease is transmitted by ingestion of milk and milk products from infected animals and by contact with the infected substances noted above. The disease is rarely communicable from man to man, although the organisms are excreted in urine and other excretions for long periods of time. Control of the disease is largely a matter of eliminating infected animals and by pasteurizing milk and milk products. Separation of calves from infected mothers and the vaccination of all new-born calves by brucellosis vaccine has been helpful. Cleanliness in the barnyard and immediate disposal of infected fetuses and placentae is necessary. Treatment in man consists of the use of the tetracyclines and chloramphenicol. However, the use of antibiotics has not decreased the relapse rate which is very high.

Leptospirosis.—Leptospirosis is estimated to cost the United States more economically than brucellosis. The infection is caused by a spirochete of which there are upwards of sixty serogroups. Those principally affecting man are L. icterohemorrhagiae, canicola, pomona, bataviae and grippotyphosa. The source of infection for man is largely urine of chronically infected animals such as dogs, cattle, swine, rats and a host of wild rodents. Swine are the most dangerous to human beings. The mode of infection is by contact with contaminated water or by direct contact with infected animals. Infection takes place by entry of the organism into mucous membrane or abraded skin areas. The incubation period of the disease is four to nineteen days with ten days as an average. The clinical picture in man may be mild or severe and may result in meningeal signs and symptoms.

Many outbreaks have occurred in the United States as a result of swimming in ponds or slow-moving creeks, which have been contaminated by animal shedders of the organism. This has most commonly occurred in late summer, affecting young adults and children particularly. The disease is an occupational hazard especially for those between the ages of twenty and thirty-nine and involves veterinarians, abattoir workers, sewer workers and dairy, poultry and fish house workers. In Europe, rice and cane field workers are prone to the disease. There has been an appreciable increase in Leptospirosis in the United States since 1948 and a rapid spread of bovine and porcine

types since 1951. Among cattle there is evidence that 3 to 12 per cent have been infected. Abortion among cattle and swine is common as the result of leptospirosis.

Treatment of the disease in man is nonspecific. Chemotherapeutic agents now in general use have been shown by laboratory studies to possess leptospirostatic properties. In laboratory animals infected with leptospira treatment is successful if begun shortly after inoculation. Doses of penicillin in the order of 4 million units daily seems to shorten the duration of fever in some mild varieties of human leptospirosis, but this drug and the wide-spectrum agents do not prevent ocular complications and if renal, hepatic or vascular decompensation takes place none of the chemotherapeutic agents have been shown conclusively to influence the course of human leptospirosis significantly.[8]

Salmonellosis.—Salmonellosis remains a bothersome infection. The causative organism consists of hundreds of types and infection generally results in a gastrointestinal upset with abdominal cramps and diarrhea. The disease is the result of infection of contaminated food or drink. The source of infection is domestic fowl, household pets and rodents, other domestic animals, the eggs of ducks and swine, cattle, sheep, horses, dogs and cats. An extended study of household pets indicated that 3.4 per cent harbored one or more types of salmonella on slide inspection of rectal contents. The mode of infection is improperly prepared food and improperly cooked or pasteurized food or drink. Another prime source is pastries contaminated by rodent feces and urine. The incubation period is short, being somewhere between six to forty-eight hours with an average of twelve hours. The infection may be severe for a relatively short period of time. Recovery is generally rapid. There is no treatment for the human disease.

Streptococcal Infections.—Streptococcal infections are not as common as they once were, but man may develop a streptococcal or septic sore throat or scarlet fever as a result of ingestion of food or milk products from infected cattle. One or more quarters of the cow may be infected by contact with human carriers or cases. The organisms grow in the milk and the use of non-pasteurized milk products may result in outbreaks of the human disease. In reported outbreaks due to ingestion of contaminated milk scarlet fever generally developed in children, whereas adults were more likely to develop what is called septic sore throat. The latter condition is usually not communicated from one person to another. Control of the infection necessitates the pasteurization or boiling of milk, exclusion of infected persons from dairies and from milking or handling cattle and the exclusion of milk from cows with mastitis due to hemolytic streptococci. Treatment in humans is satisfactory when penicillin or wide-spectrum antibiotics are used.

Tuberculosis.—The near elimination of tuberculosis from cattle in this country is a triumph of veterinary science and public health control measures. Human beings may be infected by either the human or bovine type of tubercle bacillus. The bovine type affects man, swine, cats and dogs, whereas the human type may affect cattle, swine and dogs. However, by far the commonest source of bovine tuberculosis in man is milk from tuberculous cattle. The mode of infection is ingestion of non-pasteurized milk or milk products and possibly air-borne infection in barns or contact with contaminated animal products. Control measures have been highly effective in the United States because of the program of destruction of infected animals, both those with the disease and those that are tuberculin positive. Additional control has been accomplished by the pasteurization and boiling of milk and by meat inspection.

Early in the control program in the United States cattle slaughtered because of a positive tuberculin test showed visible lesions of the disease in the majority of instances. In recent years, however, fewer of the slaughtered animals show visible lesions. The Institute of Agricultural Medicine has undertaken a study in Iowa in the past year under a grant from the Iowa Tuberculosis and Health Association dealing with reciprocal case finding of tuberculosis in animals and man. On receipt of information from the Department of Agriculture that cattle from a farm have been found tuberculin positive the family and farm employes are checked and x-rayed to determine whether they may be infected. On report of a human case taken from a farm, information is given to the Department of Agriculture to test the cattle on that farm to determine whether they may be infected. The study is in its infancy and no statement can yet be made as to the value of

this type of reciprocal case finding in the control of tuberculosis in man.

Tularemia.—In recent years tularemia has become a more important disease affecting human beings. The organism is bacterial in nature and disease in man results in a sudden onset, chills, fever, prostration and often the presence of an initial lesion which is quite typical and accompanied by lymph node enlargement and suppuration in the vicinity of the lesion. The source of infection is many species of wild animals and some domesticated animals, namely; rabbits, hares, coyotes, muskrats, squirrels, quail, skunk and rats. It may also be contracted as the result of a bite by an infected fly or tick or inoculation of the skin or conjunctival sac by rubbing organisms into these areas, and through the handling of infected animals such as during dressing of the animals for meat consumption. Arthropods involved in the biting are the deer fly, the wood tick, the dog tick and the lone star tick. Tularemia is not communicable from man to man. Control measures involve the avoidance of bites, the use of rubber gloves in dressing animals, and avoidance of drinking raw water from streams. Treatment in man consists in the use of streptomycin, the tetracyclines or chloramphenicol.

Cat Scratch Disease.—(Cat-bite fever, benign inoculation lymphoreticulosis, non-bacterial regional lymphadenitis.)

Cat scratch disease is a recent acquisition among animal infections transmitted to man. Geographically the disease is widespread having been reported in Europe, Great Britain, North and South America and Asia. Published descriptions were made in 1950 but the infection was known by Foshay in 1930 but not reported. It results from the bite of insects or by trauma. The incubation period is roughly two to eight days. The cause of the disease has not been ascertained and the lesion which results resembles a boil which is crusted or pustular in character. The lesion is usually solitary and is inflamed. A few persons develop a rash, but this is self-limited. Lymph node enlargement occurs two or three weeks after infection. The source of infection includes several animals of which the cat is the best known. None of the animals appear to have recognizable disease. Man contracts the disease through a bite, scratch or lick of the cat or other animals, by the peck of a bird or bite of an insect. Other trauma has been stated to have resulted in this infection such as, a break in the skin by a thorn or a splinter of wood. Control measures are at present unknown. There is no specific treatment, but chlortetracycline and tetracycline have been stated to shorten the course.

Cutaneous and Visceral Larval Migrans.—Cutaneous larval migrans results from contact with a cat (Ancylostoma braziliense) and dog (Ancylostoma caninum) which contact causes a dermatitis in humans. Visceral larval migrans[1] is a recently discovered infection most widespread and damaging to children. It was first recognized and described in 1952. It is due to the round worm, Toxocara. Eggs are passed in the feces of dogs but need two to three weeks of warm, damp, shaded soil for their development. Contact of children with contaminated soil may produce a long lasting larval infection in children. Ingested eggs hatch to larvae which latter enter the liver and other parts of the body notably the nervous system and the eye. This results in eosinophilia, pneumonitis, bronchial asthma, urticaria, neurological conditions, interocular lesions, and sub-cutaneous cysts, masses or swellings. Control necessitates keeping dogs and cats free from parasites.

Trichinosis.—Trichinosis is caused by trichinella spiralis, the larvae of which are found in infected meat and which cause, after ingestion by man, an irregular disease causing edema of the upper eyelids by the eleventh day and a gastrointestinal infection which results in muscle soreness, pain, skin lesions, thirst, sweating and chills. The source of infection for man is pork and pork products which are improperly cooked. The reservoirs of the infection are swine, fox, wolves, bears and rats. Control is by riddance of rats, disposal of carcasses of animals, the cooking of garbage to be fed to hogs, and the cooking of all pork products to be ingested by man. There is no specific treatment.

Rickettsial Diseases.—Although classical and murine typhus, scrub typhus fever, Rocky Mountain spotted fever, rickettsial pox and Q-fever are diseases which may affect man, those affecting persons in the United States are limited to Rocky Mountain spotted fever, rickettsialpox, Q-fever and occasionally murine typhus in the southern part of the United States. None of these condi-

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Recent Advances in Treatment of Urinary Stone

By Edwin L. Prien, M.D.
Brookline, Massachusetts

UROLITHIASIS is a recurrent disease in many people. The rate of recurrence will vary considerably—from 15 to 25 per cent for common small calcium oxalate stone so often passed by individuals with an uninfected urine to a recurrence rate of 60 to 70 per cent for staghorn stones removed by operation from chronically-infected kidneys. It is, therefore, worthwhile to attempt to prevent such recurrence by the application of specific regimens for the various types of stone.

Despite an enormous amount of work on clinical and investigative levels we still do not know the cause of the great majority of urinary calculi. There are a few exceptions such as hyperparathyroidism, responsible for about 5 per cent of recurrent calcium-containing calculi, and a few other conditions responsible for even fewer stones.

Certain predisposing factors in stone formation are recognized but cannot be considered as causal because stones may occur without them or be absent when they are present. My thesis may then be stated as follows: we do not know the cause of the great majority of urinary calculi. We may never learn all the causes. May it still be possible to prevent recurrence without knowing these causes? I do not believe this problem of prevention of recurrence is an insoluble one.

Probably a few words concerning the composition and classification of calculi are in order before we proceed further. Urinary calculi are divided into calcium-containing and non-calcium-containing. Here in North America, approximately 90 per cent of all calculi are calcium-containing. The substances in these calculi are calcium oxalate, calcium phosphate and magnesium ammonium phosphate. The remaining 10 per cent of calculi are composed as follows: uric acid about 6 per cent and cystine about 3 per cent. Uric acid or cystine may also be found in 1 or 2 per cent of the calcium stones. These crystalline substances are enmeshed in an organic matrix or network in all calculi. This matrix is quite constant in composition but its exact identity has not been established nor its origin determined.

Largely because stone prevention regimens have not been very effective in preventing stone there has been a tendency to disregard the composition of the urinary stone. Furthermore, the usual chemical analysis of calculi has been unsatisfactory and not helpful. Commonly the report mentions a jumble of ions or radicles which make little sense. Some few laboratories do provide an adequate chemical analysis. A new technique, called crystallographic analysis, is superior to any chemical technique for this purpose. Because urinary calculi are composed of different substances, and because treatment to prevent recurrence may be diametrically different for the various types, it is important to know the composition of the stone.

There is not time to discuss in detail the various regimens and therapies which have been used to prevent recurrence of urinary calculi. Certain general measures are applicable to all cases. The eradication of foci of infection, whether in the teeth, tonsils, prostate or elsewhere is indicated. Hyperparathyroidism must be ruled out. Faulty habits of living should be corrected. The patients must be impressed again and again with the importance of a liberal fluid intake and regular adherence to the program. Co-operation by the patient will depend, in large measure, upon the application of regimens which are not disciplinary or rigorous. Stringent dietary restrictions in patients with recurrent stone of any type have, in general, been ineffective, unacceptable for long term therapy, and unnecessary.

Prevention of Uric Acid and Cystine Stone

Since most of this discussion will concern the treatment of calcium stone, let us first dispose of the problem of cystine and uric acid stone. The application of isotope techniques has shown that uric acid is synthesized in the body from the simplest carbon and nitrogen compounds and not exclusively from ingested preformed purines and

nucleoproteins as had been thought. Therefore, restriction of diet to prevent uric acid stones is not indicated. There is no dietary treatment for cystine stone.

Prevention of uric acid and cystine stone depends on alkalinization of the urine. The solubilities of these substances are considerably enhanced in alkaline urine.

The best alkalinizer is sodium citrate as proposed by Albright. A mixture of potassium citrate and sodium citrate may be used in patients who are on a low sodium diet. A rounded teaspoonful (3 or 4 gm.) three or four times daily in water has sufficed to keep the pH at 7.5. This salt may be bought by the pound and used indefinitely without harm. Soda bicarbonate may be used if preferred. An alkaline ash diet is unnecessary. It is mandatory that patients check the pH of their urines to maintain the proper alkalinity. Nitrazine paper will be adequate for this purpose. Occasionally, alkalinization of the urine has merely changed the composition of the stone in a uric acid or cystine stone-former; calcium phosphate and magnesium ammonium phosphate have been precipitated instead. To prevent this, a low calcium diet should be given with the alkali.

The commonest error which we have found in the programs of patients on alkalinization therapy is laxness in checking the urinary pH. All too frequently only a few tests are made, commonly at the same time each day and then further checking of the pH is abandoned. It seems not to be recognized that the urinary pH varies throughout the day and from one day to the next. It is necessary to know what the pH is all the time and it is necessary that the urine be kept alkaline twenty-four hours a day. To learn about this, the pH should be determined at least five times daily for a week. Only by becoming thoroughly familiar with the twenty-four hour urinary reaction and keeping the urine alkaline all the time may the patient expect successful stone prophylaxis. Even then, stone will recur in some cases. It should be said that it is much easier to keep the urine alkaline than acid and that prevention of recurrence of uric acid stone has been generally quite successful in my experience; I have had somewhat less success with cystine stone.

Prevention of Calcium Stone

Let us consider now the regimens in use to prevent calcium stone. Only in the very occasional case is there evidence that dietary excess of calcium is responsible for stone formation, as in heavy milk drinkers or persons who take alkalies regularly. Furthermore, many calcium stone-formers continue to make stone when placed on low calcium diets. Therefore, I merely require that they refrain from milk as a beverage and eat no cheese. The average person's intake of calcium from other food sources is probably less than 150 mg. per day which is quite acceptable. This regimen permits them to have milk or cream in coffee or tea, on cereal or fruit and even allows them a little ice cream.

Acidification of the urine, plus a low calcium diet, probably has been used more frequently than any other form of combined therapy to prevent recurrence of calcium stone. The solubilities of calcium phosphate and magnesium ammonium phosphate increase with increase in acidity of the urine; the solubility of calcium oxalate is virtually unchanged by change in urinary reaction.

Ammonium chloride, acid ash diet and sodium acid phosphate have been used to acidify the urine. The first two are open to the objection that they may produce acidosis and bone demineralization and may also increase the excretion of calcium phosphate in the urine. Sodium acid phosphate, in doses of 10 to 15 grains three or four times a day, is preferred. It produces a moderate increase in the urinary acidity and is not open to the objections attending the use of ammonium chloride.

The major objection to acidification therapy has been that it failed to acidify the urine much of the time. In the presence of a well-developed urea-splitting infection, the urine cannot be acidified at all and continued use of the drug may be detrimental. Even in an uninfected urine, the expected decrease in pH may fail to develop, or may be irregular. Many physicians have had little success with acidification therapy.

Low Phosphate Diet Plus Aluminum Gels for Chronic Infection with Stone

Urinary stasis due to obstructive lesions is usually followed by chronic infection by a variety of organisms. Some of these bacteria do not have any influence upon the pH of the urine, others have a profound alkalinizing effect because they split urea with the formation of ammonia; ammonia is a powerful base. The staphylococci and bacillus proteus are the principal urea-splitting or-

ganisms. In the alkaline urine of urea-splitting infection two urinary salts become very insoluble. These are calcium phosphate and magnesium ammonium phosphate. These are the salts which compose most of the large staghorn or dendritic stones with which you are all familiar. With continuing infection and stone formation there is gradual destruction of the kidney with scarring and dimunition in renal function. Eradication of urea-splitting infection in such kidneys is usually impossible. Nephrectomy should be considered in patients with unilateral staghorn calculi in severly damaged kidneys if the other kidney is healthy.

The aluminum jels, such as Amphojel, Creamalin and Basalgel have been used with some success in these alkaline infection stone cases. The problem with this form of therapy is in making the patients swallow 3 to 4 ounces of aluminum jel daily; it is not a particularly pleasant medication and only patients with a severe stone problem may be expected to co-operate over the long period of time necessary, a period which must run for years. The stone-forming tendency is not a transient episode usually.

Importance of Vitamins and Nutrition

It is felt by some that vitamin-A deficiency is an important factor in stone formation. While avitaminosis and malnutrition probably are factors in the endemic stone areas of Asia, it is doubtful that they are important factors in most of North America with its high standard of nutrition. I find no reason to give supplementary vitamins to stone-forming individuals who are eating a well-rounded diet.

Hyaluronidase

The importance of urinary colloids in increasing the solubility of the stone-forming substances in the urine has been warmly debated. Butt and associates claimed that an enzyme, hyaluronidase, injected subcutaneously, produced a protective colloidal effect in the urine and prevented stone formation. Boyce and associates found no change in the total quantity of urinary colloids nor in the precipitability of the urinary salts after hyaluronidase administration. Clinical experience has failed to justify the original claims made for the enzyme.

Salicylate Therapy

The deficiencies of acidification therapy have been recognized for a long time. About five years ago, we began a search for a class of compounds, which, if taken orally, would appear in the urine and might increase the solubility of the calcium salts without depending on acidification. We found in the literature that glucuronic acid increases the solubility of calcium phosphate in aqueous solution. Glucuronic acid exists in everybody's urine in small amounts. The glucuronic acid molecule looks like the glucose molecule except that it contains some additional oxygen. It is formed from glucose, apparently in the liver. It does not appear in the urine as the free acid but in the form of complex glucuronide salts which serve a useful function. Many metabolic products and some potentially toxic substances are eliminated in the urine combined with glucuronic acid. In this way, glucuronic acid plays an important part in the detoxication of metabolic products by facilitating their excretion in the urine.

There is extensive literature on this subject. A large number of drugs are so excreted. It is also common pharmacologic knowledge that the amount of glucuronide in the urine may be enhanced by increasing the dosage of the drug or compound which has to be excreted as a glucuronide salt. Apparently the body manufactures glucuronide from glucose in accordance with the demand for it. We merely selected the commonest, cheapest and safest drug which would do this, and this was aspirin. So, by administering a salicylate drug, we stimulated an increase in the amount of glucuronide in the urine and this is believed to increase the solubility of calcium salts in urine, particularly calcium phosphate. Judging by our clinical results in patients, some of whom have been under treatment for more than four years, it appears to work, not 100 per cent of the time, but very much better than any other therapy for calcium stone which we have tried.

In the beginning, we started all patients on 2 gm. of aspirin daily in three divided doses; this meant taking two aspirin tablets three times daily. This dosage was selected somewhat empirically as a safe and acceptable one for prolonged medication. Inspection of the literature had suggested that, aside from the occasional ordinary gastric intolerance to salicylates, the more serious complications generally followed a dosage of at least 6 gm. daily. This does not take into consideration the very occasional case of idiosyncrasy to the drug. On this dosage of 2 gm. per day, it was possible to triple, and sometimes to quadruple, the

twenty-four-hour urinary excretion of glucuronide, presumably occurring as salicyl glucuronide. It was soon discovered that a related salicylate drug, salicylamide, produced a considerably higher glucuronide response in the urine, and we have used it almost exclusively since. In addition, it is also better tolerated by some individuals who developed heartburn on aspirin. The dosage of salicylamide most commonly used is 2 gm. per day, divided into three doses. Buffered aspirin produces the same glucuronide response as does ordinary aspirin and is, therefore, believed to be inferior to salicylamide for our purposes. In addition to the daily dose of salicylate, we ask our patients to force fluids, to avoid milk as a beverage, and to refrain from eating cheese. There were no other restrictions.

Somewhat more than one hundred patients have been under treatment for varying periods of time up to four years. The original study group of nineteen patients all had histories of severe or moderately-severe recurrence of calcium stone. Chronic obstructive changes of the upper urinary tract were present in six. Sixteen of the nineteen had chronic urinary infection, including urea-splitting infection. None were uremic but six had only fair or poor renal function. Some were free from stone and some had stone existing in kidneys at the time treatment started.

We made extensive laboratories studies on all patients before starting treatment, and all had pyelograms or KUB films every six months to ascertain if new stone had formed or if existing stone had increased in size or density. Believing that the efficacy of treatment depended upon increasing the amount of glucuronide in the urine, all patients had quantitative urinary glucuronide determinations before treatment was begun and these studies were repeated at intervals as indicated.

In this original study group of nineteen patients, it is possible to report the following: one patient was a failure from the start; he continued to make stone at a rapid rate. In four others, there has been some increase in size of existing stone, in two of these considerable increase. One patient in this group who had passed over 100 small calculi in fourteen years and had been unable to work much of the time has made and passed only a single small stone in the last four years and has been able to work regularly. In the other fourteen patients, we are reasonably sure there has been no new stone formed and no increase in size or density of calculi existing before treatment was started.

A much larger group of patients has been under treatment and observation for shorter periods of time. Some of these have less severe stone disease, and all have not remained on the regimen continuously. It has not been possible to follow all of them closely and some have dropped from sight. It seems reasonable to believe that the results have not been as good as in the original group which was composed of dedicated patients all of whom had had considerable stone trouble. Other physicians have tried this treatment, and we have had reports of success and also of failure.

While the results of salicylate therapy in stone-forming patients become obvious only after months or years, it has been possible to provide what may constitute confirmatory evidence on an acute clinical basis. Bedridden patients who require inlying urethral catheters frequently develop alkaline-encrusting cystitis with encrustation and obstruction of catheters by phosphate urinary salts. Such obstruction may necessitate changing of catheters frequently. In a small series of such patients on salicylate therapy, the encrustation has been retarded or abolished in the majority. The obvious failure in some cases can only be interpreted to show that the solubilizing mechanism of salicylate therapy is not without limitation.

Contraindications to Salicylate Therapy

We do not recommend the use of salicylate drugs in patients who are uremic because there is danger of toxicity from retention of salicylates. I believe that these drugs may be tried in patients who have reduced renal function but are not uremic. If renal function is poor, they must be kept under active and continuing rigorous medical supervision. As long as you can demonstrate that they are excreting their salicylate, it may be safe to continue the drug. This decision will depend on the laboratory and not on an office visit and a urinalysis.

The patient who has a history of duodenal ulcer and of urinary stone, a not uncommon combination, may provide a real problem—salicylates may activate his ulcer. We have had one such case. A history of ulcer may provide a real contraindication to salicylate therapy.

We have had occasional patients complain of salicylism, manifested by ringing in the ears. If this happens, the drug is stopped for a few days

and then we start out again at a lower dosage, gradually working up to the original level.

Indications for Salicylate Therapy

I do not believe that salicylate therapy is indicated in the patient who has merely passed his first ureteral calculus or who has recurrences at long intervals, such as a number of years. The frequency of stone recurrence, the relative ease or difficulty experienced by the patient in getting rid of the stone, and the patient's personal inclinations are to be considered. Of course, if a complicated stone situation exists, such as an obstructive renal lesion, it becomes the duty of the physician to acquaint the patient with the dangers attendant on stone recurrence and to insist that preventive therapy be tried.

The exact nature of the mechanism whereby salicylate appears to increase the solubility of calcium salts remains unknown. It may be due to a little understood phenomenon called chelation, in which the calcium remains in solution but is tightly bound to salicylate or glucuronide so that it is unavailable for stone formation. We have been studying this mechanism intensively for some time and still have not elucidated its exact nature. Probably when this is done, we shall understand why some cases have failed to respond; also it may be possible to potentiate the therapeutic effectiveness.

Aspirin and salicylamide are cheap. The treatment costs less than 15 cents per day. There is little money to be made in marketing salicylate drugs. As a result, certain pharmaceutical houses have combined salicylamide with other drugs, either useless for our purposes or even harmful when taken for prolonged periods of time and sold the combination at fancy prices. The addition of vitamin A or C, cortisone, alkalies, atropine derivatives, antispasmodics, narcotics and antibiotics to salicylamide has either been proposed or already exist in products which are advertised to prevent kidney stone. I suggest you prescribe salicylamide alone.

I should like to emphasize that we do not claim to have a proved therapy or one that will prevent stone in all cases, but only a promising one. Only you gentlemen can determine its value by trying it out. I recommend it for your consideration.

Addendum

As a result of continuing laboratory investigation, it has become obvious that salicylamide metabolites are excreted as organic sulfate salts (ethereal sulfates) as well as glucuronide salts. Ethereal sulfate salts are organic, highly ionized and soluble and are to be distinguished from the common inorganic sulfate, also present in large amounts in urine, but which may form insoluble salts. Such ethereal sulfate metabolites may combine with cations in the urine, including calcium, magnesium, sodium and ammonium, and are considerably more potent in binding calcium than is glucuronic acid. It is ironical that we did not discover the sulfate metabolite earlier.

Despite the fact that the ethereal sulfate radical is very acidic, we have noted no significant increase in acidity of the urine in patients on salicylamide therapy although we have made no careful studies of this. It appears, instead, that neutral salts are formed which remain in solution.

Further clinical observation has demonstrated that salicylamide therapy frequently fails to prevent stone formation in the presence of well-developed urea-splitting urinary infection. We believe that this is due to the ammonia which is liberated and which competes with calcium for the acidity metabolites; ammonium sulfate salts are formed instead. Further study is being carried on.

It is necessary to point out that salicylate therapy will not take the place of surgery for existing stone which should be removed. Salicylamide should be used to prevent recurrence; it will not dissolve formed calculi in the urinary tract.

1101 Beacon Street
Brookline 46

MORTALITY RATES

Even in terms of death rates from tuberculosis alone, the future task is large and prolonged. It will require years of effort to achieve a death rate of only 1.5 per 100,000 population, which is about the current death rate from acute rheumatic fever, appendicitis, arthritis, poliomyelitis, and several other diseases which are still considered to be of public health import. The maternal mortality rate is about at that level. Measles, whooping cough, and infectious hepatitis combined, do not exceed it. When the death rate from tuberculosis drops to the level of these important diseases, then tuberculosis control programs and needs should be re-examined.—Robert J. Anderson, M.D., Public Health Representative, Feb., 1956.

Alcoholism and the Masked Diagnosis

By Clayton K. Stroup, M.D.
Flint, Michigan

ALCOHOLICS are admitted to hospitals with all kinds of diagnoses from malnutrition and avitaminosis to psychoneuroses. We are aware that alcoholism is an illness; even the legislatures of many states recognize it as an illness and a public health problem. Surely it is time for us to begin to call it by its right name.

Various assessments of the number of alcoholics have been made. Jellinek-Keller[1] estimates there is a drinking population of 62,000,000 in the United States and that 3,800,000 of these have a drinking problem. One-sixth are women. Ipsen, Moore and Alexander[2] give a mortality rate of 1.2 per hundred in Massachusetts; Gibbins[3] has approximately the same figures for Ontario as Jellinek has for the United States.

In a study of alcoholics admitted to Hurley Hospital, I found that 275 patients were discharged with either a primary or secondary diagnosis of alcoholism during 1948 and 1949. In the same period, there were 6,112 medical discharges. For the years 1953 and 1954 there were 385 patients with 597 admittances with a final primary or secondary diagnosis of alcoholism, out of a total of 7,012 medical discharges. Two hundred and forty-nine had a primary diagnosis of alcoholism. Some of these patients had been admitted several times.

The increase in the incidence of alcoholism in this hospital can be explained in two ways. First, more patients are being referred to the hospital because of alcoholism. Second, more of the patients who are admitted are now being diagnosed as alcoholics when previously they were given some spurious diagnosis.

Hurley Hospital is a general hospital with a ward for psychopathic patients. In this ward 209 individual alcoholic patients were discharged in these two years. One hundred and seventy-two of them had a primary diagnosis of alcoholism. Most of these patients were admitted directly from the emergency room. But of 176 alcoholic patients admitted directly to the medical floors, only seventy-seven had a primary diagnosis of alcoholism.

In reviewing histories of alcoholics, I have found a slight increase in frank diagnosis in the last few years, although the trend is still weak. For example: Mr. H. B. in the years 1950 to 1954 had thirty-six separate admittances, lasting from one day to several weeks. Except for one occasion when he had a femoral hernia repaired, his hospital admissions were all for alcoholism. Yet, a primary diagnosis of alcoholism was given only rarely at first, although it appears a little more frequently in his latest records.

Mr. C. R. was admitted to the hospital eighteen times from 1950 until 1955. Of these admissions, although the history had the physical findings which were almost identical, a primary diagnosis of alcoholism was given only six times. Disguised diagnoses were given twelve times. As in Mr. H. B.'s case, alcoholism is named more frequently in recent years; of Mr. C. R.'s six diagnoses of alcoholism, one occurred in 1950, one in 1952, one in 1953, and three in 1955.

Some of the various masked diagnoses made for these men, and for many other such cases, were: acute gastritis, mental, antibuse poisoning, avitaminosis, hyperventilation and tetany. Ipsen, Moore and Alexander,[2] in their study of the prevalence of alcoholism in Massachusetts, make this statement: "Alcoholism is indicated more frequently as a component condition in certificates of the medical examiners than in certificates of physicians who have discretional regards to consider."

In Flint, Michigan, as in most of our industrial cities, the large industries have investigators whose job is to determine the causes of absenteeism. If these men find alcoholism is the cause of absence, presumably it is entered under its correct name on the employe's record. When people work for smaller concerns, the employer will certainly be aware of it, if one of his helpers is an alcoholic; he too will give the illness its proper name. Ordinarily, the family and friends of an alcoholic recognize alcoholism. Most life insurance companies now accept alcoholism as a diagnosis and do not withhold payment of insurance claims when the diagnosis is made. What, then, is gained by a

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Medical Education in Germany

By John F. MacGregor, M.D.
Owosso, Michigan

AS A member of the Armed Forces returning to this country after two years in Germany, I thought it fitting that an American physician should give his impressions of medical education in that country. Being stationed in a relatively large city (Frankfurt), it was possible to visit the University of Frankfurt Medical School frequently and observe the teaching methods. In addition, much information concerning medical education was obtained by talking to German doctors, personally, many of whom were employed by the United States Army to work in the hospital and the out-lying dispensaries.

It goes without saying that German medicine suffered considerably during the Hitler regime. In order to produce more doctors for the military, more and more students were taken into the medical schools and, as a result, many of these were poorly trained. Medical education in Germany still differs considerably from that of many European countries, and differs still more from that here in the United States.

In Germany, four years of elementary school is concluded by a rather strict selection of the ten-year-olds through an entrance examination to the "Gymnasium." The "Gymnasium" and its equivalents, the "Realgymnasium" and the "Oberrealschule," where there is a stronger emphasis on the sciences and modern languages, is able to eliminate every year those of its pupils who cannot maintain a set standard. In the course of nine years this leads to a weeding-out of a considerable percentage of pupils. The standards of secondary schools in Germany are on the whole considerably higher than those of the average American high school, because its pupils comprise a selection of the most gifted. A further sifting takes place in the final examination, the "Abiturum." Those pupils who pass this are entitled to attend a university and to study in any faculty of their choice. A special selection of medical students, as is practiced in America, does not exist.

Pre-clinical studies, lasting five terms (two and one-half years) introduce the future German doctor to anatomy, physiology, embryology, biology, chemistry, and physics. After two terms, students have to pass an oral examination in physics, chemistry, botany, and zoology . . . the "Vorphysikum." A second oral examination, which lasts several days, has to be passed at the end of the entire five terms of the pre-clinical course. This examination, the "Physikum," is the last chance to eliminate the unsuitable candidates.

There then begin six terms of clinical instruction. During this time the student has to attend the required professorial lectures in surgery, internal medicine, and the various specialities. Many medical educators in other countries, including our own, are critical about the German method, in which the formal professorial lecture still stands at the central point. These educators criticize not only the method of teaching, as such, but also the embodiment of this system as represented by the patriarchal figure of the "Geheimrat." In the "Praktika" he learns the technique of physical examination, of obstetrical and gynecological examination, and laboratory methods. At the same time he attends lectures in hygiene, bacteriology, social medicine, et cetera.

The final examinations, the so-called "Staatsexamen," are spread over about three months. They consist of an oral test in each of about fifteen subjects, about one subject every week. During this time, students "cram" much as they do in this country, and the candidate is much relieved when the Staatsexamen is over. In general, there are no mid- or end-of-term examinations in Germany. After completion of this examination and after a two-year internship, the German doctor spends a three month preceptorship under a general practitioner. This permits the candidate to practice as a physician. As has been stated, all instruction revolves around the professorial lecture. The value of these lectures should not be underestimated. The lecturer is usually a mature man, who by reason of long experience is an expert in his branch of medicine. Instruction follows no fixed plan, but is usually

Dr. MacGregor was formerly on the surgical staff, 97th General Hospital, Frankfurt, Germany.

loosely put together from hour to hour and is adjusted to the available patient material.

At the end of his studies, a German medical student is noticeably behind his American counterpart in his abilities as a practical physician. Also the American system is perhaps better for the early recognition and elimination of undesirable students. On the other hand, the less rigid course of study in the German schools offers the gifted and interested student great possibilities for individual development.

While an American medical school produces doctors, all of whom are about equally well educated, the range of variation between "good" and "bad" in Germany is definitely greater. A serious deficiency in German medical education is the lack of opportunity for the student to get practical experience. With the exception of the comparatively few "Praktica" and the "Famulatur", (a type of preceptorship which he can take in various hospitals during his vacation), the medical graduate will have had little or no experience in the technique of handling patients.

The German school and university system is based upon academic freedom. This necessitates a unified and coordinated curriculum and allows every student the absolute right to transfer to any university within the Federal Republic without any loss of time. The only difference between the schools is the quality of teaching within the various subjects. Thus, a student may start at the University of Cologne, transfer to the University of Frankfurt, and finish up at Heidelberg. An outstanding professor in a certain field will draw students to his university. Therefore, it is a general policy to encourage students not to stay in one university, but to move from one to another.

Despite the fact that many professors are in agreement on certain defects in the German medical training program, reform has as yet been undertaken only very hesitantly. It is generally recognized in Germany that reforms are mandatory. The advantage of active collaboration of students as contrasted with the purely receptive attitude of students under the German teaching method, is also widely admitted.

However, before one can introduce an educational program modeled on that of the United States, there are many obstacles which would have to be overcome. A large increase in the number of instructors and assistants would be necessary. Purely economical reasons make this impossible. Furthermore, a medical reform would not be possible without a thorough reorganization of the teaching hospitals.

A word should be said here about the insurance system in operation in Germany. About 85 per cent of the people come under this system, which was founded by Bismarck and is the main nucleus of the practice of medicine in Germany. It is privately administered, but is a legally compulsory system. As with an insurance program of this kind, it is often abused by the patient because it is free, which leads to exploitation of the doctors. Since such a large percentage of the people are covered by the system, a physician and especially a general practitioner, can scarcely carry on without the money from this system. There are literally thousands of doctors waiting their time for approval to practice in the system. The waiting period is about five to eight years, or even longer, after completion of intern training—a time usually spent in residency training in the various branches of medicine.

The fee schedule under the existing insurance system in Germany would, I am sure, be quite shocking to the American practitioner. The fee for a practitioner's care for three months is about 15 marks (1 mark = 25c). A home delivery would run about 35 marks, appendectomy 25 marks, ureterolithotomy about 50 marks. There is little hope that the fee schedule will be greatly increased since the compulsory payment by workers for medical, old age, unemployment, and other insurance, and taxes, comprises about 20 per cent of the take-home pay. In addition, with the large backlog of doctors waiting to be approved for the system, the physicians themselves are in a poor position to complain.

The advantages of a more practical medical education are, as mentioned before, widely recognized in Germany. The privilege of academic freedom cannot be given up without a shock to the whole structure. The monotony in the training program of various medical schools in America is often commented on by the European observer, who is surprised at the ready acceptance of officially imposed standards. There also arises doubts as to whether the co-ordination of knowledge really presents the only solution to the problem. It is difficult to overestimate the advantages derived from the lectures of an experienced man

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For Protection of the Individual?

In Washington recently, health directors of labor organizations, meeting as the National Conference of Labor Health Services, said that group plans for the mass purchasing of doctor care are necessary to protect the public from "incompetent" physicians.

It's all well and good to pooh-pooh such attacks; to sit back and say to ourselves: "We are the only ones who can practice medicine, and we will decide how it's to be practiced." But we would be foolish if we did.

For these health directors are representing powerful consumers-of-medical-care groups, and whether we like it or not, they will have something to say about how medical care is rendered and paid for.

The strength of their voice and their decisions will be whispering or thunderous depending upon how well *we* solve these same problems and that without materially disturbing our present tried and proven systems.

To do that requires one major thing: an active State Medical Society which has the confidence of its members; and a membership that is willing to work out within the structure of that Society the difficulties and differences that are bound to exist in any new program.

We can't win anything with geographical factionalism or specialty fractionating, and we can lose everything.

The Michigan State Medical Society deserves—on the basis of its past record and its present efforts—the solid support of its members and their faith and confidence.

Geo. W. Slagle.

President, Michigan State Medical Society

President's Message



Editorial

THE ORGANIZED HOME CARE DEMONSTRATION OF METROPOLITAN DETROIT

"Be it ever so humble, there's no place like home"† is the concluding sentence in an editorial which appeared in the April 12, 1958 issue of the *Journal of the American Medical Association* devoted to the subject of Home Care Programs. The editorial brought out the fact that there is an increasingly large number of such programs being developed in the United States. In Michigan an interesting demonstration is administered by the Visiting Nurse Association of Metropolitan Detroit. The prime difference between this home care demonstration program and other programs is the fact that this one centers about the private physician and his care of the patient.

The Detroit Home Care Demonstration Program has made available to the private practitioner in the care of his individual patient such services as bedside nursing, physical therapy, occupational therapy, diet therapy, home aid service, and social case work. Other agencies have made available family counseling, physical and psychological evaluation, physical and vocational rehabilitation, and financial assistance.

At all times these patients have remained the private patients of the family physician, who maintains control of the entire program carried out in behalf of his patient. Whenever a patient could pay for the ancillary services furnished by the Visiting Nurse Association or by one of the other community agencies, he was requested to do so in accordance with his ability to pay. In no instance was there any interference with the patient-doctor relationship. Physicians and social agencies may refer cases to the Visiting Nurse Association of Metropolitan Detroit who, upon study and conference with the referral physician, will then determine the suitability of the patient for admission to the Home Care Program.

Home care programs can be developed within the framework of other Michigan communities. Sometimes such services can be given by public health nurses working for a health department, at other times by nurses in a visiting nurse association. As more physicians are aware of the availability of such services and as more families become acquainted with the benefits of such comprehensive home care, the demands for home care services will extend into other areas of the state. To quote from the editorial noted above, "Home care often shortens the patient's stay in the hospital, eliminates the necessity for frequent re-admissions and prevents the hospitalization of some patients and the custodial institutional care of others. Home care programs have other advantages. Too often removal to a hospital destroys the last traces of a patient's independence, and this is followed by rapid deterioration in his physical and mental conditions. Many patients who do poorly in the hospital make notable gains on home care." The Detroit Demonstration of the Home Care Program is described elsewhere in this issue.

Vlado Getting, M.D., Dr. P.H.
University of Michigan

EMPLOYMENT GROUP BENEFIT CONTRACT M-75

The new Michigan Blue Shield Employment Group Benefit Contract has been finally adopted and is the result of about a year and a half of very intense work and long and tedious hours by the Michigan State Medical Society through The Council and committees of the House of Delegates.

Groups of members of The Council, the Michigan Medical Service Board, the House of Delegates and others scattered through several of the areas in the state have been conscious of the need for change and of the desperate need of more liberal extension of our Blue Shield program in Michigan. In 1940, this was the first state-wide program in existence although California had a plan in operation six months ahead of us but in very limited scope and numbers.

The Michigan Medical Service Program Plan for the service it covered was becoming inadequate and unsatisfactory to the doctors and to the subscribers. It is to the credit of these public spirited and hard working doctors, the administrative force of the State Society and Michigan Medical Serv-

†Editorial: Home care programs. JAMA, 166: No. 15 (Apr. 12) 1958.

ice and to many others, that a completely new study was attempted.

For a second time, the Michigan State Medical Society went to the people of the state of Michigan and to the doctors individually with a study and an opinion survey to find out what the doctors want and what the public wants, trying to satisfy both.

In the very early 1930's, the Michigan State Medical Society had made a survey to determine what the people were doing in the nature of health care and how much they were using voluntarily. The resulting Mutual Health Service failed in adoption by the State Society but became the stimulus which ultimately led to the establishment of the Michigan Medical Service.

The Opinion Study Survey, conducted in 1957, was more extensive and covered several times the number of people. It also contacted by mail every doctor member of the Society and was directed to determining what both wanted.

The new M-75 Employment Group Benefit Contract is the direct result. This retains a service concept, sets up an entirely new method of determining eligibility for service benefits and groupings and establishes a graduated co-insurance provision. This new contract, M-75, adds another group on the income limits and adds new benefits not previously covered. These will include diagnostic x-ray in the doctor's office and the out-patient department of the hospital as well as for in-patient radiation therapy for treatment of malignancies and other specified ailments, diagnostic laboratory services in the doctor's office and the hospital out-patient department, coverage for medical, surgical and obstetrical consultations in the hospital, and payment for technical surgical assistance when necessary. In accordance with the principles adopted unanimously by the House of Delegates, the above benefits will be subject to partial payment on the part of the patient.

In a few words, this is a new broader program that the Michigan State Medical Society and Blue Shield have developed. The contract and the applying fee schedules have been printed and distributed to every member. This new contract was adopted by the opinion studies, committee work and consultations representing the Medical Society as a whole and has been offered for sale since August 1, 1958. Individual doctors have had questions on various items or inclusions and an attempt has been made to cover every reasonable situation. It must be remembered that the medical profession by its very nature has certain obligations and duties, our prime objective being to care for the sick. Secondary to this is the financial element. The doctor must be in a position to render these services to his patients.

That would be done readily if this were a complete public service, all donated. But neither the American public nor the medical profession desires to be dependents. Twenty or thirty years ago, it became evident that if the medical profession wished to continue existence as an independent body, it must provide a method by which patients could pay the necessary fees, and the doctors could live. This concept of duty to patients grew from the grass roots. Pre-payment insurance was the answer and was wholely medically inspired, against all insurance advice.

It has been said many times that the New Employment Group Benefit Program Contract is another extension and recognition of the responsibilities of the medical profession. This contract is our offering to the public to supply medical services and to our physicians to make these offerings possible. All one has to do is to read the newspapers and magazines to see again the growing pressure from various sources, pointing to a complete medical service administered by labor with doctors on salary, or by bureaucrats in the government.

Administrative Features

Some medical doctors and some groups representing various specialty or other interests are delaying the adopted and accepted program of the whole Michigan State Medical Society. This plan was created through the representative government by County Society delegates to the House of Delegates and opinion studies by the House of Delegates and its committees, culminating in the unanimous adoption of a set of principles based upon that instruction. Result: the new Employes Group Benefit Contract. The schedule of fees which will be paid is an entirely new theory adapted to Michigan, from the California Relative Value Program, and is to be used until Michigan can adopt its own Relative Value Schedule.

In order to be sold, the new contract must not only have the approval of the whole Society, which it already has because it was adopted by the House of Delegates of the Society, but needs the participation of our membership. Some of our members

have hesitated, fearing that if they participate they are saddled with a burden of accepting the scheduled fees. In the first place, any participating doctor may cancel his participation on 30 days' notice. Secondly, there is provision in the administration of the program to take care of the occasional case where the doctor feels he has been inadequately paid. Under the old contract, there has been a medical advisory committee meeting frequently to which these questions could be and were appealed—questions of coverage, questions of adequate payment. The appealing physician could be heard by letter or personally, and the committee had authority to determine payment.

This concept is continued in the new contract. The fee schedule is set up for the average case in the average community with the average amount of service, responsibility and time, intended to be a minimal but satisfactory amount for that service. Provision is made however where individual consideration may be given at any time there has been unusual responsibility, unusual difficulty, unusual time consumed, or the doctor is dissatisfied. New medical advisory insurance committees are being established in every Councillor District to study these appeals. The Medical Society has attempted to give every member equal opportunity and equal consideration.

BETTER MEDICAL CARE?

In the July issue of The Journal, we mentioned a meeting, called June 16 in Washington, D. C., of the National Conference of Labor Health Services. This date was the 20th anniversary of the National Health Conference held in Washington in June, 1938, presided over by Josephine Roche, at that time assistant secretary in charge of the United States Public Health Service, and featuring George Baehr, M.D., Dean A. Clark, M.D., Wilbur J. Cohen, and others.

Reports of that original conference indicated the belief of the sponsors that compulsory health service under the government was the ultimate and best method of caring for the people of this nation. Reports of this present national conference of labor health services would seem to indicate a trend in medical care and legislation. This trend shows an animosity to the American Medical Association and the medical profession with an indication that medical education itself is too thorough and the profession's objective is purely financial. Morris Brand, M.D., President of the American Labor Health Association, made that statement and set up three rules: (1) Labor Health plans elect the physicians who treat the participating patient "they provide better quality and more comprehensive medical-hospital service for workers and their families" (2) early diagnosis and treatment of disease provide a better health protection and lower cost—they thus reduce the patient's load ultimately regarding hospital attention and (3) they enable greater use of the medical services because participating patients can afford through group plans the services and care they could not buy on their own.

George Baehr, M.D., was formerly active in the Medical Forum which caused the profession untold trouble during those years of trial. He organized and is now medical superintendent of the Health Insurance Plan of Greater New York—a plan which renders service through salaried and licensed groups of physicians. Dr. Baehr made this remark:

> "After four years in a medical school and perhaps an additional year of internship, physicians are licensed in every state of the union to practice medicine and surgery and all the various specialties for the rest of their lives without supervision or control. People are expected to protect themselves from the poorly trained or incompetent often without knowledge of the nature and seriousness of their illness or the ability of the doctor to cope with it. Medical societies have dedicated themselves to preserve this state of affairs."

The medical profession cannot accept that implication. It cannot allow labor, insurance plans and groups to determine who is competent to take care of the people rather than voluntary selection. Dr. Baehr with whom we have never been able to agree must have been asleep for the last fifty years. One of the greatest services the profession has rendered to the public is in stimulating better medical education, training for specialties, establishing twenty-one specialty boards and taking every measure possible to assure patients that their doctors have adequate training for the services they intend to perform.

In Michigan recently, we have had one supreme court case and a couple of circuit court cases bearing upon this subject; attempting to supervise practice in the hospitals by adequately trained men in their special field. Another case is still pending.

WHAT MUST WE DO TO BE SAVED?

There is increasing awareness the country over that the Forand Bill confronts medicine with some problems that are as dangerous as they are delicate.

Speaking at a national Blue Shield conference lately, Dr. Howard N. Simpson of Springfield, Massachusetts, said:

"A very serious problem exists to find ways of financing the medical care of older citizens. It is a matter that has been developing rapidly for years, yet organized medicine waits for a politician to grab the ball and looks horrified when he starts to run with it. . . . If what we believe in is to survive, it will not do so simply because we are high-minded, and wish it to survive. Nor will it do so because we give it lip service, or our daily blessing. . . . We must discard old plans . . . and adopt new tactics and new weapons. . . ."

In a similar vein, referring specifically to medicine's responsibility for Blue Shield and its opportunity to utilize Blue Shield for greater service to the public, another Massachusetts colleague, Dr. Charles H. Bradford of Boston, wrote recently:

"We must stop focussing our thoughts childishly on income levels and fee schedules; we must stop bickering and yammering. We must grasp the larger significance of the splendid organization that we have built up in the last twenty years. . . ."

Ten years ago, when the "Fair Deal" put on a drive to enact a plan for national compulsory health insurance, the existence of Blue Shield, even though only in a late gestative state, was a crucial factor in persuading the people to reject socialized medicine.

Casting about for some constructive alternative to governmental action in this area, some physicians have been heard to ask: "What is Blue Shield going to do to meet the challenge of the Forand Bill?" To which Blue Shield's answer is:

"What does medicine want us to do? What is medicine willing to do—through Blue Shield—to meet this very acute and special need? Blue Shield stands ready to serve you, doctor, to act at your command. . . . But the flight plan or the marching orders must come from you."

THE MANAGEMENT OF MASS CASUALTIES

Continued from Page 1115)

duty, that is, caring for themselves and others. Medical sorting permits an orderly, timely, and efficient utilization of available medical needs. It is a continuing procedure carried out at each echelon of care.

The critical importance of sorting demands that physicians assigned these responsibilities be selected on that basis of mature professional judgment.

The objectives of medical sorting are accomplished by designating patients within categories. Criteria for grouping will vary with the type of disaster, the backlog of patients awaiting medical care and the capability and resources for handling the emergency.

Categories for medical care should be as follows: 1. minimal treatment; 2, immediate treatment; 3, delayed treatment, and 4, expectant treatment.

Minimal treatment should be confined to patients who can be treated safely and sent on about their business. Immediate treatment should be carried out for patients for whom expedient procedures will save life or limb. Delayed treatment is for patients who, after having received emergency care, incur little risk by delay in further treatment. Expectant treatment should be reserved for patients so critically injured that only complicated and prolonged treatment offers any hope for improving life expectancy.

Another important principle is that except for life-saving procedures, nothing should be done that decreases the patient's ability to care for himself.

For the first twenty-four hours following a disaster, a community must depend upon itself for the care of the injured. After a period of twenty-four to thirty-six hours, all the help in the world can be depended upon from the system of mutual aid and outside help. However, the success in handling the casualties during the first twenty-four to thirty-six hours will depend upon the adequacy of planning and the ability of the local units to put the plan into effect.

DOCTOR, YOU AND YOUR LADY

Are Cordially Invited to Attend the

Officers Night Dinner Dance

Sponsored by

Michigan State Medical Society
and Woman's Auxiliary

SHERATON-CADILLAC HOTEL, DETROIT

Wednesday, October 1, 1958



Ann Landers, Guest Speaker

Reception 7:00 p.m.—Boulevard Lounge

Dinner 8:00 p.m.—The Book-Casino

INFORMAL (Limit of 250)

Address Committee on Arrangements

Box 539, Lansing 3

MSMS Annual Session — 1958

MEETINGS OF ANCILLARY GROUPS

Tuesday, September 30

MSMS Section on Pediatrics and Michigan Branch, American Academy of Pediatrics—5:00 to 6:00 p.m. meeting; 6:30 p.m. reception; 7:30 p.m. dinner—all in the English Room of the Sheraton-Cadillac Hotel. The scientific program will be a summary of interesting chest conditions in children under the title "Pulmonary Potpourri" by Waldo E. Nelson, M.D., Professor of Pediatrics, Temple University of Medicine. Dr. Nelson is widely known as an outstanding pediatrician and the editor of a textbook on pediatrics.

Alumni Association, University of Michigan Medical School—6:30 p.m. reception; 7:30 p.m. dinner, Wayne County Medical Society headquarters.

Michigan State Hypnosis Society—7:30 p.m. organizational meeting in Parlor G of the Sheraton-Cadillac Hotel. All members of the Michigan State Medical Society who use hypnosis in their practice, those interested in doing so, and all others desirous of joining will be welcome. For information, please contact R. V. August, M.D., 72 E. Broadway, Muskegon Heights, Michigan.

Wednesday, October 1

Michigan Regional Committee on Trauma, American College of Surgeons—12:00 noon luncheon (Sheraton Room) followed by scientific meeting at 2:00 p.m. in the English Room of the Sheraton-Cadillac Hotel. The title for the conference is "The Prevention and Management of Athletic Injuries." Subjects to be covered are: "The Prevention of Athletic Injuries"; "Physical Basis for Restriction of Participation in Athletics"; "Medical Organization for an Athletic Program"; "Field Examination and Therapy and Treatment."

MSMS Section on Urology and Detroit Branch of the American Urologic Association—5:00 p.m. meeting in the Sheraton Room, Sheraton-Cadillac Hotel.

Michigan Epilepsy Center and Association—12:30 p.m. luncheon-meeting in the Pan American Room, Sheraton-Cadillac Hotel. Speaker is Z. Stephen Bohn, M.D., Detroit, who will talk on "Present-Day Approach to Epilepsy." All registrants invited. For ticket, write R. D. Dennerll, 2912 W. Grand Blvd., Detroit.

Thursday, October 2

Alpha Kappa Kappa—8:00 a.m. breakfast-meeting, Sheraton Room, Sheraton-Cadillac Hotel.

MSMS Section on Otolaryngology and Detroit Otological Society—6:30 p.m. reception, 7:30 p.m. dinner, 8:30 p.m. scientific meeting in the Sheraton Room, Sheraton-Cadillac Hotel. Speaker is Joseph A. Sullivan, M.D., of Toronto, Ontario, Canada, on "Comments on Tympanoplasty."

Michigan Academy of General Practice—Board of Directors luncheon-meeting beginning at 12:00 noon in Parlor F, Sheraton-Cadillac Hotel.

MSMS Committee of Past Presidents—12:00 noon luncheon meeting Parlor G, Sheraton-Cadillac Hotel.

MSMS Section on Ophthalmology—5:00 p.m. meeting followed by 6:30 p.m. reception and dinner, Bagley Room, Statler Hotel. The program will consist of a panel on "Disorders of the Macula." Moderator Harold F. Falls, M.D., Ann Arbor, will present "The Lesion of the Macula and Perimacular Area Associated with Early Childhood"; Windsor S. Davies, M.D., Detroit, will speak on "The Pathology of Lesions in and about the Macular Area"; and Alfred J. Elliot, M.D., Toronto, Ontario, Canada, will discuss "The Lesions of the Macula and Perimacular Region of Involutional and Senile Origin."

MSMS Section on Nervous and Mental Diseases—5:00 p.m. meeting followed by 6:30 p.m. reception and dinner at 7:30 p.m., English Room, Sheraton-Cadillac Hotel. Speaker is Lewis L. Robbins, M.D., Glenoaks, New York, on the subject "Psycotherapy Research."

MSMS Section on Gastroenterology and Proctology, Michigan Proctologic Society and Michigan Gastroenterology Society—5:00 p.m. meeting, Parlor F, Statler Hotel.

Alumni Association Wayne State University College of Medicine—Alumni Banquet, Thursday, October 2, Pan American Room, Sheraton-Cadillac Hotel. Reception and cocktails at 6:45 p.m., dinner at 7:15 p.m. All alumni, faculty and friends of Wayne State University are cordially invited to attend. Dean Gordon H. Scott, Ph.D., of the College of Medicine, will be the principal speaker. The banquet program will be dismissed in time for alumni to attend the State Society Night program. The College of Medicine Alumni Association will also maintain a headquarters suite in the Sheraton-Cadillac Hotel during the Annual Session.

Friday, October 3

Otolaryngology-Surgical Clinics—Tympanoplasty surgical clinics, Harper, Memorial, and Henry Ford Hospitals, Friday afternoon, October 3, beginning at 1:00 p.m.

Because of the micro-surgical techniques involved, each clinic will be limited to eight guests. Please contact Dr. Harold F. Schuknecht, Secretary, Otolaryngology Section, MSMS, c/o Henry Ford Hospital, Detroit 2, for an assignment indicating your choice of clinic.

Nervous and Mental Disease Clinics—"Psychosomatic Problems" will be the subject of an interesting panel at Lafayette Clinic, Detroit, 2:00 to 4:00 p.m. Sponsors of the symposium will be the MSMS Section on Nervous and Mental Diseases in co-operation with Jacques S. Gottlieb, M.D., of the Lafayette Clinic.

O. Spurgeon English, M.D., Philadelphia, will be guest speaker at the Symposium.

MSMS Section on Pathology and Michigan Pathological Society—9:00 a.m. to 12:00 noon, joint meeting of the Michigan Society of Medical Technologists and the Michigan Pathological Society at Wayne County Medical Society. There will be several speakers on subjects in Clinical Pathology.

The afternoon program will be in the English Room of the Sheraton-Cadillac Hotel, beginning at 2:00 p.m. with a slide seminar on Pediatric Pathology. Moderated by John Craig, M.D., Children's Hospital of Boston; 5:30 p.m. business meeting; 6:30 p.m. reception; and dinner at 7:00 p.m.

Michigan Diabetes Association—2:00 p.m. meeting in the Pan American Room, Sheraton-Cadillac Hotel. The scientific meeting and the dinner are open to all physicians. (See program, page 1154.)

Michigan Chapter, American College of Chest Physicians and the Michigan Trudeau Society—Cocktails and dinner will be served at 6:30 p.m. in the Sheraton Room, Sheraton-Cadillac Hotel. This will be followed by the scientific session at 8:00 p.m. Nathan Levitt, M.D., Detroit, will speak on "The Clinical Application of Paper Electrophoresis in Sarcoidosis." E. Osborne Coates, Jr., M.D., Detroit, will discuss "Pulmonary Alveolar Proteinosis."

MICHIGAN DIABETES ASSOCIATION

Scientific Program
Friday, October 3

Chairman—WILLIAM LOWRIE, M.D.

P.M.

2:00 Oral Hypoglycemic Agents in the Management of Diabetes
FRED W. WHITEHOUSE, M.D.
Associate Physician, Henry Ford Hospital, Detroit

2:15 Reasons for Caution in the Use of Tolbutamide
KEATS K. VINING, JR., M.D.
Attending Physician, Blodgett Hospital, Grand Rapids

2:30 Management of Diabetes in Pregnancy
GEORGE THOSTESON, M.D.
Assistant Clinical Professor of Medicine, Wayne State University Physician, Harper Hospital, Detroit

2:45 Movie: The Diabetic Foot
W. EARL REDFERN, M.D.
Associate Physician, Henry Ford Hospital, Detroit

Intermission
(10 minutes)

3:30 Avoiding Dangers in the Management of the Juvenile Diabetic
GEORGE H. LOWREY, M.D.
Associate Professor of Pediatrics, University of Michigan, Ann Arbor

3:45 Newer Aspects in the Diagnosis of Diabetes
STEPHEN FAJANS, M.D.
Assistant Professor of Internal Medicine, University of Michigan, Ann Arbor

4:00 PANEL: Diabetic Coma
Moderator—GORDON MYERS, M.D.
Professor of Medicine, Wayne State University Director of Education, Harper Hospital, Detroit
HOWARD ROOT, M.D.
Medical Director, Joslin Clinic, Boston, Physician-in-Chief, New England Deaconess Hospital, Boston, Massachusetts
ROBERT LEACH, M.D.
Assistant Professor of Medicine, Wayne State University, Detroit
JOHN B. BRYAN, M.D.
Associate Physician, Henry Ford Hospital, Detroit
STEPHEN FAJANS, M.D.
Ann Arbor

6:30 Cocktails

7:00 Dinner
Evening Session:
Chairman—FRANK PERKINS, M.D.
The Relationship of Control of Diabetes to Vascular Complications
HOWARD ROOT, M.D.
Boston, Massachusetts

Women's Organizations

Tuesday, September 30, 1:30 p.m.

Fashion show and tea for all members of the Woman's Auxiliary to MSMS, in the Auditorium of the new Wayne County Medical Society Building, 1010 Antietam (at Gratiot). Fashions by Crowley Milner and Company. All ladies wishing transportation please meet at the registration desk in the lobby of the Hotel Fort Shelby at 12:45 p.m.

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

Thirty-second Annual Meeting
Monday, September 29, 1958
Grand Ballroom, Sheraton-Cadillac Hotel

A.M.

10:30 Report of Auxiliary President to the House of Delegates of the Michigan State Medical Society —MRS. C. ALLEN PAYNE

Tuesday, September 30, 1958
Hotel Fort Shelby

Registration opens at 12 noon
Hospitality Room opens

A.M.

8:00 Executive Committee Breakfast Meeting—President's Suite, Hotel Fort Shelby

9:00 to 1:00 School of Instruction and Luncheon for District Directors, 1957-58 and 1958-59 — Hotel Fort Shelby

P.M.

11:00 to 1:00 Meeting of 1957-58 and 1958-59 State Committee Chairmen—President's Suite, Hotel Fort Shelby—MRS. ROBERT REAGAN, presiding. "Dutch Treat" luncheon

1:30 Fashion Show and Tea—new Wayne County Medical Society Building, 1010 Antietam (at Gratiot) — Auditorium — Fashions: Courtesy of Crowley Milner and Company

6:00 Past State Presidents' and Secretaries' Dinner
Woman's Study Club
Chairman, MRS. AUDREY O. BROWN
Co-Chairman, MRS. ROGER V. WALKER

Wednesday, October 1, 1958

A.M.

8:00 Breakfast for District Directors and County Presidents—Hotel Fort Shelby

9:00 Pre-Convention Board Meeting (for 1957-58 State Officers, Directors, Chairmen and County Presidents) Crystal Room, Hotel Fort Shelby

10:30 Formal Opening of 32nd Annual Meeting of Woman's Auxiliary to the Michigan State Medical Society, Crystal Room, Hotel Fort Shelby —MRS. C. ALLEN PAYNE, *presiding*
(Delegates and Board Members will please register with the Roll Call Chairman at the door before the opening of each session, thus eliminating the need of an oral roll call.)

Invocation—Rev. Lester L. Dobyns, Christ Church, Cranbrook
Pledge of Allegiance to the Flag
Woman's Auxiliary Pledge
Address of Welcome—Mrs. John J. Corbett, Immediate Past President, Wayne County Auxiliary
Response—Mrs. Harold Gay, First Vice President, Woman's Auxiliary to the Michigan State Medical Society
Introduction of Convention Chairmen
Mrs. John H. Ganschow
Mrs. John E. Hauser
Report of Roll Call Chairman
Mrs. James T. Howell
Convention Rules of Order
Presentation of Program
Announcements
Address of the President—Mrs. C. Allen Payne
Report of Officers:
President-Elect—Mrs. Robert Reagan
First Vice President—Mrs. Harold Gay
Second Vice President—Mrs. Paul Ivkovich
Recording Secretary—Mrs. G. L. Hagelshaw
Corresponding Secretary—Mrs. Fred Brace
Financial Secretary—Mrs. Milton R. Weed
Treasurer—Mrs. Francis X. Krynicki
(including the report of the auditor)
Report of Finance Committee (and presentation of budget for 1958-59)—Mrs. Delbert MacGregor, Chairman

P.M.

12:30 Past Presidents' Luncheon—Honoring:
Mrs. E. Arthur Underwood, President of the Woman's Auxiliary to the AMA; Mrs. William Mackersie, Vice President for the North Central Region, Woman's Auxiliary to the AMA; Past Presidents of the Woman's Auxiliary to the MSMS; and representatives of the MSMS
Coral Room, Hotel Fort Shelby
Greetings—Clarence I. Owen, M.D., President, Wayne County Medical Society
Guest Speaker—Fran Harris, Radio and Television Personality, "Celebrities Can Be Fun"

2:30 Résumé General Session
Crystal Room, Hotel Fort Shelby
Address—Mrs. E. Arthur Underwood, President of Woman's Auxiliary to the American Medical Association
Report of Members-at-Large Chairman—Mrs. C. O. Willits
Reports of District Directors
Reports of County Presidents
Group I—with membership of fifteen or under
Mrs. B. B. Bushong—Moderator
Allegan, Clinton, Eaton, Gogebic, Huron, Ionia-Montcalm, Livingston, Mason, Menominee, Newaygo, Sanilac, Tuscola, Wexford-Missaukee
Group II—with membership of 16 to 25
Mrs. Lorenzo Nelson—Moderator
Chippewa-Mackinac-Luce, Delta-Schoolcraft, Dickinson-Iron, Mecosta-Osceola-Lake, North Central, Northern Michigan, Shiawassee, St. Joseph, Van Buren
Report of Registration and Credentials Committee—Mrs. Daniel L. Rousseau, Co-Chairman

Officers Night Dinner Dance—Sheraton-Cadillac Hotel
Reception in Boulevard Lounge at 7:00 p.m.
Dinner in Book Casino at 8:00 p.m.
Speaker: Ann Landers, "The Advice Column—The Poor Man's Couch"
Sponsored by the Michigan State Medical Society and the Woman's Auxiliary

Thursday, October 2, 1958

A.M.

9:00 General Meeting of Woman's Auxiliary to the Michigan State Medical Society
Crystal Room, Hotel Fort Shelby
Mrs. C. Allen Payne, presiding
Convention Announcements
In Memoriam Service
Reports of Roll Call Chairman
Mrs. James T. Howell
Reports of County Presidents—Continued
Group III—with membership of 25 to 50
Mrs. George Anthony—Moderator
Branch, Gratiot-Isabella-Clare, Houghton-Baraga-Keweenaw, Lenawee, Lapeer, Marquette-Alger, Midland, Monroe, Ottawa.
Group IV—with membership of 50 to 100
Mrs. S. A. Yannitelli—Moderator
Bay, Berrien, Calhoun, Grand Traverse-Leelenau-Benzie-Kalkaska, Macomb, Muskegon, St. Clair, Wayne-Southern Branch
Group V—with membership of 100 to 175
Mrs. Victor Zerbi—Moderator
Jackson, Kalamazoo, Saginaw, Washtenaw
Group VI—with membership of over 175
Mrs. R. H. Reitzel—Moderator
Genesee, Ingham, Kent, Oakland, Wayne
Announcement of Top Ten Counties in AMEF Contributions—Mrs. Fred Lindenfeld
Announcement of Counties reaching 100 Per Cent in *Today's Health* Subscription Contest for 1957-1958—Mrs. Marvin Patmos
Unfinished Business
New Business
Report of Resolutions Committee
Report of Nominating Committee—Mrs. A. Carl Stander
Election of Officers
Final Report of Registration and Credentials Committee—Mrs. George M. Virga, Co-Chairman
Meeting of Executive Committee for 1958-59—Mrs. Robert Reagan, presiding

M.

12:00 Inaugural Luncheon—Coral Room, Hotel Fort Shelby
Mrs. C. Allen Payne, presiding
Installation of Officers—Mrs. J. Earl McIntyre, Past State President
Presentation of Past President's Pin
Presentation of President's Pin and Gavel
Inaugural Address—Mrs. Robert Reagan
Adjournment

P.M.

2:30 to 4:00 Post-Convention Board Meeting. (For all 1958-59 Officers, Chairmen, and County Presidents)
Mrs. Robert Reagan, presiding

9:30 to 12:30 State Society Night—Grand Ballroom, Sheraton-Cadillac Hotel
An evening of entertainment for all registrants and their ladies
Host: Michigan State Medical Society

MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

Ninth Annual Meeting and Convention

Statler Hotel, Detroit

October 1 and 2, 1958

Program

Wednesday, October 1, 1958

A.M.
9:00 Registration—Oak Foyer
10:00 Invocation: Rev. Robert Rohlman
Annual Business Meeting and Election of Officers—Michigan Room
Film for Non-Members: "A Life To Save"—Bagley Room

P.M.
12:30 Luncheon—Wayne Room
Hostess: Miss Nada Davidovich
2:00—"The Clinic Approach to Alcoholism"—Michigan Room
A. F. Lecklider, M.D., Detroit
Medical Director of Detroit Committee on Alcoholism
3:00 "The Role of the Juvenile Court in the Need of Today"—Michigan Room
Judge Nathan J. Kaufman, Detroit
4:00 View Exhibits
Sheraton-Cadillac Hotel
6:00 Social Hour—Wayne Room
Courtesy of Parke-Davis and Company
Hostess: Miss Esther Bartlett
Entertainment: Leonard Stanley Trio
7:00 Banquet—Bagley Room
Hostess: Miss Adeline N. French

Thursday, October 2, 1958

A.M.
9.00 Registration—Oak Foyer
10:00 "Surgery's Contribution to the Treatment of Cancer"—Michigan Room
Laurence S. Fallis, M.D., Detroit
Surgeon-in-Chief of the Henry Ford Hospital
11:00 "Helpful Hints Regarding Terminology"—Michigan Room
Mrs. Adaline C. Hayden, C.R.L.
Associate Editor of the American Medical Association

P.M.
12:30 Presidents Luncheon—Wayne Room
Courtesy of E. R. Squibb and Sons
Hostess: Miss Elizabeth E. Kotsch
2:30 Fun Keeping Fit—Michigan Room
4:00 View Exhibits
Sheraton-Cadillac Hotel

Pre-Convention Activities

Tuesday, September 30, 1958

Statler Hotel

P.M.
8:00 Registration—Wayne Room
Reception with Coffee Hour
Hostess: Mrs. Ruth Ceaser

Please make reservations, accompanied by check or money order to the following:

Wednesday Luncheon: $3.75, including tax and tip. Reservations by mail to: Miss Nada Davidovich, c/o S. W. Trythall, M.D., 13300 Livernois Avenue, Detroit 38, Michigan.

Wednesday Banquet: $5.25, including tax and tip. Reservations by mail to: Miss Adeline N. French, c/o R. W. Parr, M.D., 8-265 General Motors Building, Detroit 2, Michigan.

Thursday Luncheon: Courtesy of E. R. Squibb and Sons. Reservations by mail to: Miss Elizabeth Kotsch, c/o Walter L. Anderson, M.D., 1217 David Whitney Building, Detroit 26, Michigan.

Please make checks or money orders payable to the persons with whom your reservations are made.

Reservations are not necessary for the Reception and Coffee Hour on Tuesday evening, nor the Social Hour, courtesy of Parke-Davis and Company, on Wednesday evening.

HOTEL RESERVATIONS MICHIGAN STATE MEDICAL SOCIETY

93rd Annual Session

Detroit, September 30-October 1-2-3, 1958

The reservation blank below is for your convenience in making your hotel reservations in Detroit. Please send your application to the Committee on Hotels for MSMS Convention, Sheraton-Cadillac Hotel, Detroit, Michigan. Mailing your application now will be of material assistance in securing hotel accommodations.

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant, when convenient.

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Committee on Hotels,
Michigan State Medical Society
c/o Sheraton-Cadillac Hotel
Detroit, Michigan

Please make hotel reservation(s) as indicated below:

———— Single Room(s) ————persons

———— Double Room(s) for ————persons

———— Twin-Bedded Room(s) for ———persons

Arriving September ——— hour———A.M.———P.M.

Leaving ————hour———A.M.———P.M.

Hotel of First Choice: ————————

Second Choice: ————————

Names and addressees of all applicants including persons making reservations:

Name	Address	City	State

Date ———— Signature ————————

Address ———————— City ————

MSMS ANNUAL SESSION

STATE SOCIETY NIGHT

SHERATON-CADILLAC——— DETROIT ——— OCTOBER 2, 1958



FRANK E. MARLOW—One of the most delightful and hilariously funny comedians and Masters of Ceremonies we have in the country. His presentation includes comedy patter, songs, dances, impersonations and ad libs. A very versatile performer, his very unusual work has left audiences laughing from coast to coast. He has appeared on several leading network television programs—with tremendous success. He is without peer.



FAYE AND BRY—One of the funniest comedy acts in the entertainment field. Both gentlemen, one seven feet tall, the other under five feet, execute a routine of acrobatic feats—designed for laughter. They appear in misfit wardrobe and the audience will howl with delight during the entire presentation. They have recently returned to America after a very successful European tour and are a sheer delight to see.



EDWIN L. BARON—A maginficent presentation involving hypnosis. Mr. Baron presents a very unusual, yet highly entertaining, demonstration, using various members of the audience as his subjects. He injects some fine humor into the work but nothing is done to embarrass anyone. Hypnosis, a controversial subject, is brilliantly demonstrated. Whether or not you agree, you will be highly entertained. Mr. Baron, a personable chap, performs in excellent fashion.



JACK QUALEY and HIS ORCHESTRA—At Detroit's society balls, weddings and debutante parties, Jack Qualey's music is synonymous with a good time. His ability to make a party "click" has made his the most popular party orchestra in the Middle West.

Annual Reports

ANNUAL REPORT OF THE COUNCIL—1957-1958

The Council held three sessions totalling eight days, and the Executive Committee of The Council convened eight days (to September 20, 1958), a total of sixteen meeting days, up to the date of the 1958 Annual Session of the Michigan State Medical Society. As in the past, all matter studied (close to 1,000 items) and recommendations made by The Council's thirty-eight committees as well as by the Society's twenty-one committees, and all business of the Society, routinely were referred to The Council or to its Executive Committee for consideration and action.

Membership

Membership as of June 30, and as of December 31, from 1935 to 1958 is indicated in the following chart:

	1935	*1945*	*1950*	*1955*	*1956*	*1957*	*1958*
June 30	3,410	4,425	4,881	5,503	5,794	6,104	6,175
December 31	3,543	4,686	5,114	6,109	6,360	6,504	

The figures for 1958 include 5,435 Active Members, 300 Emeritus and Life Members, 79 Retired Members, and 361 Associate and Military Members.

The Scientific Side

The bright facets in the ring of MSMS activities continue to be its scientific achievements, epitomized in five major activities:

(a) The extraordinary, fine medical program of the MSMS Annual Session merits the approbation of our membership and the emulation of our neighbors. Last September, in Grand Rapids, thirty-eight (38) illustrious speakers were featured. The new format, Tuesday noon through Friday noon, to be inaugurated in Detroit next September, will further enhance the value of this concentrated postgraduate course which has the reputation of being one of the three best state medical conventions in the country.

(b) The Michigan Clinical Institute, our second annual and highly popular refresher course, continues to feature the experimental in programming, with excellent results and greater interest from year to year evidenced by ever-greater attendance. Thirty-five (35) guest essayists were on the March, 1958, program. The closed circuit color television program, sponsored through the cooperation of Smith, Kline, and French Laboratories of Philadelphia, the color surgical motion picture program presented through the cooperation of American Cyanamid Company, Surgical Products Division, and use of the "block" system continue to be three helpful aids in popularizing this unusual educational opportunity.

(c) The extra-mural postgraduate program of the Michigan State Medical Society, University of Michigan, and Wayne State University has been classified by experts as "one of the finest programs of the Michigan State Medical Society." This is the program that—like "acres of diamonds"—brings our two medical schools in Michigan to the doctor in his own home town. The gratifying attendance at these regional meetings bespeaks a continuing appreciation of the quality of the programs.

(d) The Journal of the Michigan State Medical Society maintains its position as a leader in its field. Improvements are constant, and new features to gain the attention of more and more medical readers constantly are being injected into this progressive medium. The membership has many reasons to be proud of its Journal.

(e) Local scientific programs. High congratulations on excellent, successful programs of medical education go to the various county societies which feature, in addition to their regular meetings, the special clinic days some of which are devoted to special subjects such as cancer control.

In a word, the scientific side of medicine in Michigan is the most rewarding and satisfying activity of the Michigan State Medical Society and its fifty-five components. Our pride in this achievement must stimulate us to *greater* efforts towards higher attainments in this, our Number One effort.

Finance

As in the past, the first item of new business on the monthly agenda of The Council or its Executive Committee is "Study of monthly financial report." Every thirty days, therefore, the Society's financial picture is reviewed and governing policies established. In addition, the Finance Committee meets periodically to study and to advise The Council on particular fiscal questions. The Auditor's report for 1957 plus the budgets of the Society for 1958 were published in JMSMS, March Number, beginning on Page 425. Members are invited to acquaint themselves with the financial status of their State Medical Society and to offer suggestions; these always are truly appreciated. As of June 30, 1958, 5,435 members paid Society dues amounting to $154,-897.50. This was on the basis of $28.50 per member allocated to the General Fund as established by The Council in January, 1958, and includes some payments by new members of portions of a year. Also, $16,179.00 accrued to the Public Education Reserve account, $33,-684.39 accrued to the Public Education Account, $18,-868.64 accrued to the Public Service Account, $28,-313.25 accrued to the Professional Relations Account for current activities as directed by The Council in January, 1958. The sum of $10,779.14 was set aside in a Building Maintenance fund as well as $53,979.94 in a New Headquarters Fund. A brief financial résumé of each of the MSMS activities as of June 30, 1958 is presented in the following table:

Financial Report for Period Ending June 30, 1958

Account	On Hand 12/1/57	Income to 7/1/58	Expenses to 7/1/58	Balance on Hand 7/1/58
General Fund	$133,962.62	$162,100.51	$83,459.00	$212,604.13
Annual Session		26,882.50	4,290.62	22,591.88
Michigan Clinical Institute		13,080.00	15,248.53	2,168.53CR
The Journal		84,197.88	62,769.96	21,427.92
Public Education	40,765.04	33,751.84	26,063.75	48,453.13
Public Service	2,761.86	18,868.64	15,981.20	5,649.30
Professional Relations	4,423.70	28,313.25	23,873.70	8,863.25
Public Education Reserve	74,084.00	16,179.00		90,263.00
Rheumatic Fever Control	12,679.95	6,755.12	6,184.52	13,250.55
Surplus from Dues	53,614.34			53,614.34
Building Fund	16,983.53	10,779.14	2,146.89	25,615.78
MSMS Headquarters Fund	28,135.00	53,979.94		82,114.94
Totals	$367,410.04	$454,887.82	$240,018.17	$582,279.69

The AMA dues collected by county medical societies, forwarded to MSMS, and then mailed to the American Medical Association during the six months to June 30, 1958, totalled $132,787.50. The very high percentage of AMA dues being paid by MSMS members (97.7 per

cent) is to be noted. The Council feels that the members of our State Society are to be congratulated on their tangible cooperation with and support of the American Medical Association. A rèsumé of the financial condition of the Michigan State Medical Society as of August 31, 1958 will be presented to the House of Delegates at its opening session of September 28, 1958, as a part of The Council's Supplemental Report.

Thus far in 1958 $40,000.00 of the funds of the Michigan State Medical Society have been invested in short-term securities. These funds are invested during the early part of the year when income resulting from dues payments is high and thus earn interest for the commercial account. These securities mature later in the year when income is low and expenses continue at the regular rate. Any securities maturing, the funds from which are not immediately required will be reinvested upon the advice of the Finance Committee. Interest income from securities held by the Michigan State Medical Society has accrued during the first six months of 1958 in the amount of $3,267.45. Also, during 1958 $65,000.00 from current income has been paid for the site of the proposed new MSMS Headquarters Building, to avoid the necessity of cashing any of the existing investments of MSMS and disrupting their earnings.

The Journal

For fifty-seven years, The Journal of the Michigan State Medical Society has brought to its members medical and scientific papers of the highest quality, prepared by our own members and by guest lecturers who are foremost authorities and who come from all over the country to our many meetings throughout the year.

During the past fourteen or so years, the Publication Committee and the editorial staff have devoted each issue to a special interest group such as Cancer, Heart, Preventive Medicine, Immunization, Michigan Medical Service, Mental Health, Diabetes, Gerontology, one of the Component Societies, Public Service, Traffic Accidents, the Physician as a Citizen, Michigan Clinical Institute, Pediatrics, Obstetrics, the Upper Peninsula Medical Society, and so on. Each of these special numbers has been prepared with the help of the specific interested group which has helped with the selection of papers and has also provided a timely editorial.

Our editorials, with the exception of the ones specially submitted by the particular interest group which is being honored, are of the socio-economic type. The editorials are roughly prepared and then submitted to all members of the Publication Committee, the officers of the State Society, the Public Relations Chairman, the Legal Counsel, and any persons whom the Editor feels might have particular knowledge or interest in the subject. Suggestions, corrections and criticisms are invited and returned to the Editor who then consolidates the attitudes and impressions of this entire group as being indicative of a sampling of the feelings of the entire Society, and the editorials are then prepared in final form.

The Journal also reports medical news of interest, legislative reports, coming meetings, professional activities and scientific writings of its membership, book reviews of the latest medical books published, medical news in the business world, editorial comments from other medical and lay publications, and in every way attempts to keep its members adequately informed in the professional field.

We are also very proud of our most interesting covers which pick up the tone of the contents and we know from the many comments heard everywhere we go that they are noticed by others all over the country.

Our sincere thanks go to the many who have assisted in the gathering of material and the selection of articles, the writing of guest editorials, and the general supervision of special issues. The Editor has always found it a pleasure and a stimulus to work with the Publication Committee, the Executive Committee and the official staff.

Organization

1. The 92nd MSMS Annual Session in Grand Rapids, September 23-28, 1957 attracted a good registration of 3,290 including 1,595 M.D.'s. This is a $30,000 stellar performance, with no portion of the expenses being paid out of members' dues.

2. The 12th Michigan Clinical Institute was held in Detroit, March 19-20-21, 1958 with an attendance of 2,988, including 1,426 M.D.'s. The budget of the Institute runs to $13,000 annually—again received from sources other than members' dues.

3. The Annual County Secretaries-Public Relations Seminar was held in Detroit, February 1-2, 1958. A new telescoped format to save the time of all who attended this indoctrinational course proved highly satisfactory. This Seminar continues to be an important means of disseminating important information on MSMS activities to the elected leaders on the component (county society) level.

4. Editorial Workshop. The first biennial Editorial Workshop was held February 1, in Detroit under the sponsorship of the Publication Committee and the Editor of JMSMS. It was an intensive meeting, beneficial to all medical men in Michigan officially connected with the publication of medical writings.

5. The Conference of Residents-Interns-Senior Medical Students was held in Detroit, March 21, 1958, as a part of the Michigan Clinical Institute. In addition, your State Society again aided the Delegates from Michigan's two medical schools in attending the Student AMA Convention in Chicago, May 2-3-4, 1958.

6. The Testimonial Luncheon of March 21, held during the Michigan Clinical Institute, recognized additional national medical leaders from Michigan who either achieved the presidency of national medical or health associations or otherwise performed outstanding service to their profession, as follows:

O. A. Brines, M.D., Detroit—President, International Society of Clinical Pathology
Edgar A. Kahn, M.D., Ann Arbor—President, Society of Neurological Surgeons
A. C. Furstenberg, M.D., Ann Arbor—Dean, University of Michigan Medical School
Joseph G. Molner, M.D., Detroit—Author of nationally-syndicated medical column
Grover C. Penberthy, M.D., Detroit—Chairman, Selective Service in Michigan
Paul Van Riper, M.D., Champion—Michigan's Foremost Family Physician for 1957

7. Our AMA Delegates were active on the national scene. At the December, 1957, meeting in Philadelphia, Wm. A. Hyland, M.D., Grand Rapids, as Chairman of the important AMA Study Committee on the Heller Report, presented a program of extensive revisions of the AMA organizational set-up, which was approved with commendation to this Committee and its efficient Chairman. W. H. Huron, M.D., Iron Mountain, served as Chairman of the Reference Committee on Miscellaneous Business.

At the June, 1958, meeting in San Francisco, J. S. DeTar, M.D., Milan, served as a member of the Reference Committee on Insurance and Medical Service. Wm. A. Hyland, M.D., of Grand Rapids, the Chairman of the Delegation, was elected a member of the AMA Council on Constitution and By-Laws.

8. A new format for the House of Delegates will be introduced in 1958—to include an extra meeting on Sunday evening, so that the House will formally convene at five meetings (Sunday, Monday, Tuesday).

9. New Wayne County Medical Society headquarters.

The congratulations of The Council were extended to the Wayne County Medical Society on its achievement in building and dedicating a splendid headquarters, a monument of excellent public relations for many decades to come.

10. IBM History Card of MSMS membership. This was developed during the past year as step number two in the efficient IBM system of the Society. The history blanks, to be sent to all members prior to the 1958 Annual Session, will give valuable information which, on punch cards, can be utilized in statistical studies of the MSMS membership. The cooperation of all members in executing these IBM history questionnaires is earnestly invited.

11. A Suggested Constitution and By-Laws for Component Societies was drafted during the past year by the County Societies Committee of The Council (W. M. LeFevre, M.D., Chairman) with the aid of Legal Counsel Lester P. Dodd. This big task was done at the specific request of numerous component societies.

12. Organization among the fifty-five component societies, comprising all of Michigan's eighty-three counties, was maintained to a satisfactory degree during the past Society year according to individual reports from the eighteen Councilors. More and more components are seeking State Society assistance for speakers, information and advice on scientific and socio-economic matters.

Public Relations

In the committee reports to the House of Delegates, the superb work of the Public Relations Committee is delineated. To pause here to recount the overwhelming volume of work carried out in its usual effective fashion is unnecessary. However, without denying the marked progress already made, it is important that the attention of all doctors is invited to the other side of the coin—namely, the public relations problems that today face the doctor of medicine. The cries of substandard healers for equality insofar as privileges in public hospitals are concerned will continue for the coming year. The position of the medical profession must not be allowed to be distorted and misinterpreted to the public.

The cost of medical care continues to consume the interest of researchers, the public and doctors alike. Since we believe in preventive public relations, it appears that some research into the area of the physician's cost of rendering medical care might be valuable information for MSMS to possess, for later distribution to members and public alike. No accurate information on this subject, insofar as Michigan is concerned, exists.

Continuing the preventive approach, there is need for the medical profession in Michigan to keep abreast of the many academic studies on subjects related to the actual provision of medical care now going on—some of them in Michigan's universities. To accomplish this, a continuing liaison should be developed with the sociology, anthropology and business research divisions of our institutions of higher learning.

In some areas corrective public relations is necessary.

Hospital public relations is one segment in which corrective measures must be taken. The public's image of the physician is, unfortunately or otherwise, closely entwined with the hospital. By association, the medical profession rides the waves of good and bad publicity received by the hospitals. Effective planning and coordination should be planned to improve the effectiveness of hospital public relations *as they apply* to the rendering of medical care in hospital.

It is apparent that all the learned professions have many of the same problems in the areas of legislation, public relations and education. Called by whatever name, each profession has fee problems, problems of unauthorized practice, tax problems, retirement difficulties, etc. Also, it is certain that the public is not aware of just what a profession is. Nor is it aware of why it is essential to the public that professional persons be permitted to practice within their traditional freedoms. Neither does the people recognize the progress that is being and has been made because of present modes of professional practice.

Because of this similarity of interests between the professions, an organization known as the Michigan Association of the Professions has been formed at the instigation and with the assistance of MSMS, which it is hoped will bring greater impact of cohesive action in these areas and on the above-mentioned problems.

Of great benefit to individual doctors and their county medical societies will be the new MSMS PR Library, which has just been completed. As the use of its material increases, our PR effectiveness will broaden and the MSMS will be supplying valuable material and information based on sound fact and presented in the most persuasive and effective manner.

The backbone of all public relations is, of course, successful communication—better understanding between doctor and patient, county societies and the local public, and the medical profession and the public at large as well as specific publics. Individually, Michigan doctors of medicine are more active and aware than ever before of the public relations implications of their activities and services. Many county medical societies have exemplary programs of their own which augment MSMS actions and follow a general pattern first outlined in the public relations manual "Winning Friends for Medicine," developed by the MSMS Public Relations Committee two years ago. This should be reviewed and reassessed by all county medical societies with the aid and counsel of the MSMS PR staff for it is necessary to continually stimulate in every doctor an interest in his own as well as his organization's public relations. We, as a profession may be right, but we have to persuade the public repeatedly that we are right, if we shall remain free. And free we must be, to give the people the BEST in medical care at a price they can afford to pay.

Seal of Assurance

The Seal of Assurance Plan, known to all Michigan doctors, has been headed by the Seal of Assurance Committee. Because of the extreme importance of this program the Executive Committee of The Council itself served as this Committee.

Although there are many facets of this program which have not yet been completed, two very important parts have been satisfactorily accomplished.

The first is the establishment of medical care insurance committees in each of the Councilor Districts and the delineation of the functions of these committees as well as their relationship to The Council and to the MSMS Medical Care Insurance Committee.

The second is the conclusion of the initial participation campaign. This campaign was carried out in every area of the state by the Councilors and Officers of the MSMS. The results of this campaign are reflected in the fact that the average county medical society percentage-of-participation is 86.4 per cent as of July 15, 1958. The statewide percentage as of this date is 61.3 per cent. Both of these figures indicate acceptance of the House of Delegates' action in establishing the Statement of Principles. The discrepancy between these two percentages is due principally to the relatively low percentage of participation in two of our most populous county medical societies.

The Councilors and Officers of MSMS extended their best efforts to disseminate all the facts available. By means of special meetings, letters, telephone calls, and attendance at county society meetings these men devoted themselves to the task of carrying out the directives of the legislative body of the MSMS—the House of Delegates.

Though heartening progress has resulted from these Herculean efforts, there is still much to be done. The

Seal of Assurance Plan is a continuing program. To assure and create public confidence in the prepayment principles propounded by the medical profession, the public's attention must be drawn constantly to the meritorious aspects of the new plan. Supervision of this next phase of work will be the responsibility of the Seal of Assurance Committee.

Woman's Auxiliary

(Submitted by Mrs. C. Allen Payne)

As President of the Woman's Auxiliary to the Michigan State Medical Society, it is my privilege to submit the following report. The accomplishments recorded here represent the contributions of every Auxiliary member.

The Auxiliary was formally organized at Mackinac Island on June 26, 1927, with 28 charter members. Our membership has now grown to approximately 3,150, dispersed throughout forty-seven county groups. One new county auxiliary was organized this year.

Your Auxiliary has continued to enjoy a close working relationship with the Advisory Committee of the Michigan State Medical Society. The Auxiliary President has met with Dr. E. H. Fuller, Chairman, frequently and sought advice and guidance in regard to related projects. The Auxiliary is greatly appreciative of the efforts of Dr. Fuller and his Committee.

The program of the National Auxiliary is made available to all county auxiliaries. Special emphasis this year has been placed on "Resolutions and Policies," American Medical Education Foundation, Safety, Today's Health and Recruitment of Medical Associates. Schools of instruction are held in conjunction with our nine district meetings and at the mid-year Board meeting in March. The local auxiliaries develop their program or part of a program to suit the needs of their local community. We are now developing a State Handbook, and this year did a complete Budget Study which involved expenses and duties of state officers, district directors, and chairmen.

Increased interest in raising funds for the American Medical Education Foundation has been evidenced this year. To date, thirty-eight counties have contributed $3,564.33. The State Auxiliary has contributed $351.81. The importance of AMEF has been emphasized to county auxiliaries through lectures, distribution of literature and cards, letters from the state chairman and AMEF displays at meetings.

Today's Health magazine, published by the American Medical Association monthly, with its new format, is receiving greater enthusiasm than ever before. While only 68 per cent of our quota (2,074 subscriptions) has been realized as of April 22, we expect to increase this figure before the end of our auxiliary year in September. Several auxiliaries include subscriptions to Today's Health in their dues. Several counties directly contact either by telephone or letter, the members of the county medical societies for renewal, gift or new subscriptions.

Recruitment of medical associates continues as a primary project in Michigan. This opportunity to assist our husband's profession, and help direct the thinking of young people in choosing a worthwhile vocation is a most rewarding activity.

Amount available for loans	$1,250.00
Amount available for scholarships	8,185.00
For organization of future nurses clubs	354.00
Total collected	$9,789.00
Nurses graduated with our help this year:	
Degree	7
Registered	48
Practical	24
Total	79

We work closely with the Michigan League for Nursing, and statewide our recruitment program now includes fields allied to medicine. One medical technologist scholarship was given this year.

Our members have been informed about pertinent national medical legislation, stressing the study of the Forand Bill. We are advised of pending legislation in the state legislature by reports from MSMS and our State Chairman. About two-thirds of our county auxiliaries devote one meeting a year to the review of important legislation.

"The Auxilium" is the new name for our official state auxiliary publication. We are quite proud of its "new look" and believe it is a very professional publication. We are indeed grateful to Mr. Warren Tryloff for his continued interest, and assistance in the editing of the "Auxilium."

As a state auxiliary, we participate in state and local Mental Health Programs; by membership, distribution of their pamphlets and use of their program material. Michigan has an active Mental Health Association, but no county groups as such. To better promote this program, we co-operate with: state and private mental hospitals, retarded children's organizations, PTA's, rural county health groups, visiting nurses associations and county infirmaries.

Public Relations, which is the service one gives to their community in health education, practice of good citizenship, and civic and cultural activities is of primary importance to Michigan Auxiliary members. The *many* hours of volunteer service every doctor's wife contributes to her community, whether through her church, school PTA, or organized community health agency, hospital, farm, civic and cultural groups, cannot be measured in time or money. Great interest in Science Fairs, and in organizing "Career Days" for high school students has been evidenced this year. Our Tuberculosis Speaking Project, which is co-sponsored annually with the Michigan Tuberculosis Association, again had a most fruitful year; 2,500 students took part in the contest through the participation of eighty-seven schools.

The State of Michigan has a very active civil defense organization and our auxiliaries work in conjunction with other organized groups. A few members have taken first-aid and home-nursing training this past year. Seventy-five per cent of county auxiliaries have had a program on civil defense this year. "Home Protection Exercises" have been used extensively; the civil defense "First-Aid Kit" has been used and made available to other groups; it has been found to be very popular.

Home safety, water safety, and accident prevention have been stressed in Michigan this year. Interest in the state now centers on chemical tests for intoxication, education of problem motorists and violators, driver licensing and improvement of driver education services. Traffic safety is important in Michigan and great interest has been shown by all citizens.

The Michigan Auxiliary is a member of the Michigan Health Council and a co-sponsor of the Michigan Rural Health Conference. This year, three auxiliary members are serving on an advisory committee to the M.D. Placement Program.

Auxiliaries to the Student American Medical Association are fully organized at both medical schools in this state. The auxiliary paid expenses for a representative of each group to attend the constitutional convention for auxiliary to SAMA in Chicago, Illinois, in May.

I appreciate having had this opportunity to tell you of some of the activities of *your* Auxiliary. It has been a most rewarding experience to have served as President of the MSMS Auxiliary for the past year. To The Council of MSMS, and to Mr. William Burns and his staff, a sincere thank you for their encouragement and guidance this year.

Beneficial Contacts with Governmental and Voluntary Agencies

Contacts with both governmental and voluntary agencies continue to be a very important and large

activity of the Michigan State Medical Society. These contacts—too numerous to itemize—included:

Governmental Agencies

1. The Medicare Program and Veteran's Administration Home Town Medical Care Program both required numerous conferences in Michigan and renegotiations with federal officials in Washington. A special MSMS Ad Hoc Committee was appointed to meet with representatives of medical groups to obtain their desires re the Medicare Program. The revised Medicare contract became effective April 1, 1958.

The V.A. Home Town Care revised contract, with its own fee schedule, became effective July 1, 1958.

2. The Society is keeping in touch with the Governor's Hospital Study Commission and with the Governor's Public Health Study Commission, as well as with the University of Michigan's Study of Hospital and Medical Economics, through official representation.

3. The People's Community Hospital Authority poses a problem in the Down-River area of Wayne County where non-medical practitioners are attempting to force membership on the medical staffs of those hospitals created under this Act. The Council is watching this activity as such a move has far-reaching implications.

4. Michigan's Commissioner of Health, A. E. Heustis, M.D., continues to be invited to all meetings of The Council and its Executive Committee, to discuss problems of mutual interest.

Voluntary Agencies

1. A "Statement of Principles Governing Physicians and Lawyers," was developed during the past year by a joint committee representing the Michigan State Medical Society and the State Bar of Michigan. The Statement was published in the November Numbers of JMSMS and of the State Bar. It represents a long step in better understanding between the two learned professions of medicine and law.

2. Blue Shield (Michigan Medical Service). A close relationship continues to exist between The Council and Michigan Blue Shield, with officials of the latter being invited to attend meetings of The Council and its Executive Committee to furnish reports and information on the activities of Blue Shield as they apply to the practice of medicine.

3. The Beaumont Memorial Foundation was created September 25, 1957, during the MSMS Annual Session in Grand Rapids. To this Foundation has been assigned ownership of the Beaumont Memorial furnishings (personal property) by agreement with the Michigan Mackinac Island State Park Commission and the Michigan State Medical Society. The Foundation assumes all the right, title, and interest in the contract between the Michigan State Medical Society and the Mackinac Island State Park Commission. Under the Presidency of Otto O. Beck, M.D., of Birmingham, the new Foundation has the prime objective of keeping the Beaumont Memorial on Mackinac Island historically authentic and modernly interesting. *A recommendation on this subject follows.*

4. National Science Fair. The Michigan State Medical Society, in co-operation with the American Medical Association and the Genesee County Medical Society, participated in the National Science Fair, held in Flint, May 7-10, 1958.

Committees

A total of eighty-three meetings of Committees of MSMS and of The Council were held during the past year (up to September 1, 1958). True gratitude of The Council goes to the chairmen and members of all these active committees which performed great service and made unheralded contributions on behalf of all MSMS members.

Again to save the time of House of Delegates' Reference Committees, the Annual Reports of Committees of The Council are being integrated into the Annual Report of The Council—a pattern that has proved successful during the past three years.

1. *Committee to Meet with University of Michigan.*—The University of Michigan has not requested a meeting.

2. *Liaison Committee with Michigan State Pharmaceutical Association.*—The Chairman of this Committee has maintained satisfactory contact with the President of the Michigan State Pharmaceutical Association and the Chairman of its Liaison Committee. A meeting of the full committee has not been necessary during the period from September, 1957, until June, 1958.

3. *Permanent Conference Committee with Michigan Hospital Association, Michigan League for Nursing and Michigan State Nurses Association.*—Regular meetings have been held throughout the year which have been well attended by all component groups. The more important subjects discussed were as follows: conference on rehabilitation, tests for national defense, personnel policies for nursing service positions in hospitals, nurse recruitment, U. of M. nursing extension program, proposed legislation concerning all branches, manual of hospital disaster plans, research on nursing needs.

All component groups realize the benefit that accrues to all of us through discussions such as these. There is a much better understanding of each other's problems and it leads to better and closer co-operation.

4. *Committee on Courses on Medical Economics and Ethics.*—Since assuming the Chairmanship, a program was instituted prior to the official August, 1958, meeting of the Committee.

The Senior Medical Class of the University of Michigan has been most co-operative and attentive to our offerings.

At the Flint Cancer Clinic, April 9, 1958, there was an opportunity to discuss our program with Dean Gordon Scott, Ph.D., of Wayne State University Medical School. He was sympathetic with the plans for next year.

Our current lectures are listed herewith:

(1) October 15, 1957: Messrs. Edwin T. McCarthy and Gordon J. Lucasse of Grand Rapids discussed "Estate Planning and Insurance Programs."

(2) November 12, 1957: Dr. S. N. Kelso of Monroe covered in a most inviting manner, the subject, "Starting to Practice."

(3) November 19, 1957: Dr. C. Howard Ross of Ann Arbor presented the subject, "A Doctor's Philosophy." Some of the "drive principles" of a physician's "innards" were introduced.

(4) November 26, 1957: "An Historical Encounter with Ethics" became a most intriguing subject by Dr. Darrell Campbell. The death of George Washington was reflected into modern interpretations.

(5) December 3, 1957: Dr. Winslow G. Fox of Ann Arbor dealt with: "A Doctor Walks Among Many Religions." Here, indeed, the future doctors were acquainted with the multiple problems of living sympathetically and ethically with the main monotheistic faiths.

(6) January 7, 1958: "The Generalist and the Specialist Form a Complete Ethical Practice" was the title of Dr. Robert Ideson's speech. He explained the problems and privileges of refer and admitted the existence of the absent-minded consultant.

(7) February 4, 1958: Dr. C. Howard Ross of Ann Arbor gave, to each student, material that formed the basis of "The Doctor's Cost Accounting System." Here the physicians' little black book evolved finally into the daily log and income tax summary sheets.

(8) February 11, 1958: Dr. E. J. Geist of Rochester, Michigan filled us all with enthusiasm, regarding "Today's Doctor and Community Service." The medico came down from the ivory tower and walked among men.

(9) February 18, 1958: One of the highlights was Dr. Thurston Thieme's lecture, entitled "The Morality

of Surgery." He began with "Dr. Popoff," who operated on anyone who would lie still, and brought us down to "The Tissue Committee."

(10) February 25, 1958: Dr. L. Fernald Foster filled a much needed gap when he masterfully fathered "Prepayment Medical Insurance." We all learned much this day.

(11) March 4, 1958: Dean Albert C. Furstenberg of the University of Michigan filled the Auditorium to capacity and detailed "Medical Manpower" in a truly thrilling manner. This was the Dean's "Cozy Hour."

(12) April 14, 1958: Regent Eugene Power became critical of "The Doctor among the Professions." A reflecting panel consisted of Doctors Ross and Teed. The questions from the audience were snappy to the core. We were proud of the speaker and the students, in the heated "give and take" debates.

(13) May 6, 1958: Dr. R. Wallace Teed reached a high level of attention in "Public Relations." Many questions from the floor were answered in admirable fashion.

(14) May 13, 1958: Our President-Elect, Dr. G. B. Saltonstall of Charlevoix, took the time out of his busy life to outline "Organized Medicine in Michigan." The subject is common to many of us but offered an entirely new vista to the listening students. Again the questions from the audience amply repaid our speaker's efforts.

It has been a good season. We are keenly appreciative of all the fine speeches made, and are indebted to the Committee and our advisors in the Michigan State Medical Society. For the next year, we are ambitious for still better things to come.

5. *Committee on Arbitration.*—The Arbitration Committee has had two meetings so far this year to advise fair and equitable fees for surgical procedures rendered to patients who are being subsidized by Governmental Agencies.

We possibly will have a couple more meetings before the year is over. We have given advice on about ten cases.

6. *Committee on National Defense.*—As in previous years, the Committee has continued to seek ways to further medical Civil Defense planning and training throughout Michigan. To this end meetings were held with representatives of the Michigan Office of Civil Defense, the Michigan Department of Health, the Michigan Hospital Association, the Michigan League for Nursing, the FCDA, and other groups.

To date, most Civil Defense activities have been on a community basis. The most meager consideration of the implications of atomic warfare, however, makes it clear that activities must be state wide and nation wide in scope. Another step toward attainment of state wide coordination in Michigan was made when the Committee adopted a regional plan developed by a sub-committee under Dr. Charles Anderson.

Recognizing the Civil Defense roles of Health Officers, to whom the Governor has delegated Civil Defense responsibilities, the nine regions in Michigan were set up so that health districts and medical society districts coincided in so far as possible. While administrative responsibility must have a chain of command and is therefore best handled by the Health Department, the cooperation of all members of the Michigan State Medical Society is necessary to make any plan effective. In recognition of this it was recommended that the regional director should be a practicing physician and the co-director the regional health officer. The Michigan Department of Health has undertaken the task of establishing the regional organizations.

The Committee has continued to maintain awareness of changes and developments in the overall Civil Defense picture. Its duty is not discharged, however, unless this information is made available to the Michigan State Medical Society membership at large. At the request of the Committee, the October, 1959, issue of the Michigan State Medical Society Journal has been designated for a presentation of medical aspects of atomic or natural disasters, and also the uses, whether for good or evil, of nuclear energy and of radioactive isotopes.

7. *Liaison Committee with Michigan Veterans Organizations.*—No meeting of this Committee was scheduled during the year. The Chairman maintained contact with the Chief Service Officers of the four Veteran's service organizations in a stand-by status.

8. *Rural Medical Service Committee.*—This Committee had one meeting during 1958 in conjunction with Mr. John A. Doherty and Mr. John B. Kantner of the Michigan Health Council. The Committee asked Mr. Tryloff to find out how many County Medical Societies have set up their local organization for treating mass casualties. It was felt that these should be available to submit to the State Civil Defense Organization in event of an emergency.

This Committee also is offering its assistance to the Woman's Auxiliary, to the Michigan State Medical Society in regard to their activities with the wives of the Student AMA when needed in the Placement Program.

An extensive report was reviewed from Dr. W. W. Kitti on the Kalkaska Project. This was too voluminous to include in the report of the Committee and to The Council, but was ordered placed in a master file with the Michigan State Medical Society so that it could be available in the central office for further reference.

Mr. Kantner reported on the Placement Service. They have made a total placement over the four-year period of 283. The Upjohn Company continued its financial support of the Service with a special grant.

It is also brought out that the Sears-Roebuck Foundation is financing a program of their own which is similar to that financed and operated by the Michigan Health Council. The Michigan Health Council was instructed to contact the Sears-Roebuck Foundation and attempt to work out a co-ordinating program.

Administration policy for the M.D. Placement Service was listed and is on file in the Michigan Health Council office.

We believe that this Committee is of definite service to the Michigan State Medical Society and should be continued, although the Chairman and members can be changed, of course, to meet the changing situation.

9. *Medical Procurement Advisory Committee.*—This Committee held no meetings during the past year, since no problems arose which called for a meeting and no references were made by officers or committees of the Society which required consideration.

10. *Special Committee to Meet with Michigan Department of Social Welfare.*—There have been two meetings of this Committee with the Director of the Welfare Department and members of his staff since September, 1957. Matters referred by the Commission were studied and recommendations made. The same high spirit of co-operation between all concerned was evidenced, as it has been during the ten years of this Committee's existence. Thanks again have been extended from the Department of Social Welfare to The Council and to this Committee for this valuable co-operation.

11. *Committee on the Study of Insurance Programs for MSMS Members.*—The proposal for group life insurance available to members of the Michigan State Medical Society was submitted to the Committee. In order to make such a program feasible the Committee sought more specific and detailed information than was obtainable.

An insurance consultant was requested to secure additional data which would aid the Committee in developing an equitable program.

12. *Liaison Committee with Michigan Medical Service.*—There were no matters referred to this Committee requiring its consideration during this year.

13. *Liaison Committee with Michigan State Board*

of Registration in Medicine.—The Committee met on January 15, 1958 with members of the State Board and representatives of the Medical Schools of University of Michigan and Wayne State University. A proposed bill for annual registration of Doctors of Medicine was agreed upon by all present and forwarded to the Chairman of the House Ways and Means Committee for introduction. This bill was passed by the House but killed in Committee in the Senate.

14. *Liaison Committee with State Executive Office.* There has been no meeting of this Committee this year. Contact with the State Executive Office was maintained via phone and letter as needed.

15. *Committee on "Big Look."*—The Committee on "Big Look" and Sub-committee on Site met on February 1, February 3, February 6, and March 16, 1958, and accomplished the following:

(1) After a thorough study was made of the material submitted by many architects, the Committee interviewed personally two firms; (a) Black and Black of Lansing. (b) Yamasaki and Leinweber of Birmingham. Yamasaki and Leinweber were chosen and were recommended to The Council who accepted them as the official firm to draw plans for our new Home.

(2) This Committee, together with Mr. Yamasaki, inspected 18 different properties in Lansing and East Lansing in search of suitable property. The Committee chose and recommended to The Council the location at the Northwest corner of Abbott Road and M-78, the size of the lot being 371 feet by 325 feet.

16. *Special Committee on VA Home Town Medical Care Program.*—This Committee was assigned the mediation of a problem involving the receipt of fees by a physician from a service-connected veteran as well as from the Veterans Administration. The case has not yet reached a conclusion.

17. *Committee on Uniform Fee Schedule for Governmental Agencies.*—The Committee on Uniform Fee Schedules for Governmental Agencies met twice—June 23 and December 22, 1957. The over-all fee schedule problem was explored at these meetings. Efforts were made to get information from various sections of the medical profession. By and large, the Committee attempted to lay the general ground work in establishing the principles which could serve as the basis for a satisfactory fee schedule. The work of actually establishing a fee schedule has not been completed as the work of this Committee has been postponed pending work being done by other fee schedule committees of the Michigan State Medical Society.

18. *Committee to Review the Problem of Medical Professional Liability.*—The Committee feels this is a problem which should receive our careful consideration. We feel that much can be done to maintain a better physician-patient relationship and thus avoid most medico-legal controversies.

The conclusions drawn by the Committee have been printed in The Journal and each delegate will receive a copy of this report to aid you in your final directives.

We were extremely fortunate in having Dr. Charles H. Clifford and our attorney Lester P. Dodd on this Committee. If further study is requested we hope they will find it possible to continue to serve.

19. *Advisory Committee to the Michigan Multiple Sclerosis Center.*—This Committee had one joint meeting with the Medical Advisory Board of the Michigan Chapter of the Multiple Sclerosis Society and the Chairman of the Committee has had frequent correspondence and discussions with the Medical Director and the Executive Director of the chapter, as well as attending one meeting of a Study Committee of the Michigan Chapter of the National Multiple Sclerosis Society. The activities of the center are in a state of transition, inasmuch as Dr. Gabriel Steiner, Medical Director, retired the first of January and Dr. Katherine J. McMorrow, Assistant Medical Director, who has been appointed to succeed him, plans to terminate her affiliation with the Center on June 30, 1958. The Study Committee is evaluating the present and future medical programs and a Personnel Committee has been appointed for the purpose of making recommendations in regard to Medical Directorship and other staff members. It appears probable at this time that the inpatient and probably outpatient activities of the Michigan Multiple Sclerosis Center will be withdrawn when Dr. McMorrow terminates her Directorship, and that the activities of the Center will be placed under the direction of the Department of Neurology of Wayne State University School of Medicine, and of Dr. John S. Myer, Chairman of the Department of Neurology at Wayne State University.

20. *Committee for Liaison with Hospital Administration.*—The Committee met early this year with a committee of hospital administrators and representatives of Blue Cross to discuss the question of the rendering of pathological services in Blue Cross-Blue Shield Plans. The question was discussed on the basis of pathological services being rendered as (1) in-patient hospital services, and (2) services outside the hospital, and in the out-patient departments of hospitals.

Discussion brought out that Blue Cross now furnishes pathological services to its subscribers, and that the new Blue Shield contracts provide for out-patient diagnostic laboratory coverage. As the new Blue Shield contracts become effective, the area of coverage that is to be provided by Blue Cross and by Blue Shield in the furnishing of pathological services will need to be clearly defined. Further meetings may be held as experience is gained in the rendering of these services.

21. *Liaison Committee to the Michigan Society of Neurology and Psychiatry and the Michigan Psychological Society.*—Since my last report which appeared as an extract from the 1957 Handbook for Delegates, may I say that the Committee did not meet as a whole. However, the Mental Health Committee of the Michigan State Medical Society passed a motion authorizing Dr. Peter Martin and myself to meet with the Executive Committee of the Michigan State Medical Society on November 20, 1957. Permission to do so was granted by Dr. Bruce Wiley and Dr. Martin and I met with the Executive Committee on the above mentioned date and presented to them the developments regarding the bill which had been proposed by the Michigan Psychological Association and its implications to the field of medicine as a whole. The Committee were very courteous, received us rather warmly, listened attentively and asked several pertinent questions.

Approximately a month later Dr. Ivan LaCore and Dr. Walter Obenauf also met with this Executive Committee this time in Lansing and they also were well received.

Early in 1958 Drs. A. H. Hirschfeld and Herbert A. Raskin presented our case before the Legislature in Lansing, Michigan.

At present things seem to be in a state of flux and so far as I know there have been no further developments.

22. *Ad Hoc Committee on Medicare Re-negotiation.*—This Committee met on February 20, 1958 to formulate plans for the re-negotiation of the Medicare program for Michigan. Letters had previously been sent to twenty-six specialty groups asking their opinions and views relative to the Medicare program. Representatives from two specialty societies were present at the meeting and presented the requests of their respective societies. Letters received from nine other specialty groups were also considered.

The Committee met with the negotiating team of the Office for Dependent's Medical Care, Department of Defense on March 10-11, 1958, in Washington, D. C., to re-negotiate the Medicare program for Michigan. The revised Medicare contract went into effect April 1, 1958. A perusal of the Medicare Manual and Schedule of Allowances for Michigan, which has been sent to every member of MSMS, will indicate the improvements obtained.

The Committee expresses its appreciation to the spe-

cialty groups for their suggestions and good advice, and to Michigan Medical Service for its cooperation.

23. *Healing Arts Study Committee.*—This Committee by definition keeps no recorded minutes.

24. *Committee on the Study of the Basic Science Act.*—No changes were made in the Basic Science Law by the 1958 session of the Legislature. Some budgetary changes were made to permit an increase for contractual services. The salary of the Secretary-Treasurer remains at $4,000.00.

The results of the examinations conducted by the Board of Examiners in the Basic Sciences for the year 1958 were as follows:

Date	Number Examined	Passed	Failed	Certified
February 1958	137	82	55	82
May 1958	215	133	82	133
Totals	352	215	137	215

The Board does not report statistics as to the categories of the applicants examined.

New Committees

Special committees appointed during the past year, of marked importance to the membership were:

(a) Committee Liaison with Hospital Administration, for Direct Efforts to Combat the Practice of Medicine by Hospitals.
(b) Committee to Review Problem of Medical Professional Liability.
(c) Liaison Committee with Michigan Hospital Association.
(d) Liaison Committee with State Bar of Michigan.
(e) Committee to Study Utilization of Vacant TB Facilities for Chronic Diseases.
(f) Committee on Vocational Rehabilitation.
(g) Liaison Study Committee (with Blue Shield) on Hospital Staff Payments.

Legal Matters

1. Legal action of Wm. A. Kopprasch, M.D., of Allegan against the Michigan State Medical Society, the Allegan County Medical Society, et al, was dropped in March, (so far as MSMS and the County Society were concerned). The effort of Dr. Kopprasch to force entrance into the Allegan Health Center (hospital) subsequently was decided in his favor by the Circuit Court.

2. The Grand View Hospital in Goegbic County again enlisted the aid of the Circuit Court, this time to decide if a chiropodist may be classified legally as a surgical assistant. This case ended in a hung jury and the question again will be before the Court next autumn.

3. Legal Counsel Lester P. Dodd, Detroit, rendered legal opinions and gave legal advice on the following matters during the past year:

(a) Discounts for appliances.
(b) Possible sales tax problems.
(c) Hospital audit of charts.
(d) Religious beliefs in connection with blood transfusions.
(e) Electrocardiograms being interpreted by M.D.'s for non-medical laboratories.
(f) Legality of paying a Blue Shield claim to a physician subscriber who has either treated himself or a member of his immediate family.
(g) Types of healers in county tuberculosis hospitals.
(h) Ownership of a patient's hospital medical record.
(i) Pontiac General Hospital matter.
(j) Beaumont Memorial Foundation incorporation.
(k) Advice to Liaison Committee with Michigan State Pharmaceutical Association.
(l) Questions re status of general hospital.
(m) Electrocardiograms by hospital.
(n) Constitution of a certain hospital.
(o) Form of consent for surgical operations.
(p) Advise re term "unprofessional conduct."
(q) Blue Cross reverification notice after thirty days' hospitalization.
(r) Advice re enrollment in Seal of Assurance Plan.

New MSMS Headquarters Building

The Committee on "Big Look," under the leadership of Wm. S. Jones, M.D., Menominee, held a number of meetings, and its Sub-Committee on Site (K. H. Johnson, M.D., Lansing, Chairman) made many investigations of property in the Greater Lansing area during the past year. In the late spring of 1958 a site at Saginaw Street (M78) and Abbott Road in East Lansing finally was selected and the purchase was consummated July 14, 1958, after expert advice on soil, topographical conditions and utility services, plus the constant legal advice of Lester P. Dodd. Additional protective land is available and may be purchased at a later date.

The architectural firm of Yamasaki, Leinweber & Associates of Royal Oak has been chosen to design the building. The architects' final scale model of the headquarters will be presented to the House of Delegates in September.

Matters Referred to The Council by the 1957 House of Delegates

1. Statement of Principles on Pre-paid Medical Care (adopted by 1957 MSMS House of Delegates). Following is a capsule summary of the great volume of activity resulting from adoption of these Principles:

(a) Appointment by The Council of the Medical Care Insurance Committee (Max L. Lichter, M.D., Chairman, Melvindale, J. J. Lightbody, M.D., Detroit, J. W. Logie, M.D., Grand Rapids, R. L. Mainwaring, M.D., Dearborn, D. G. Pike, M.D., Traverse City, F. C. Ryan, M.D., Kalamazoo and W. F. Strong, M.D., Ontonagon).

(b) Joint action by the MCIC and Michigan Medical Service to establish a contract in accordance with directives outlined in the Statement of Principles. Many hearings were held with groups in interest.

(c) Adoption by The Council of the recommendations of the MCIC and the "M-75" contract of Michigan Medical Service.

(d) Establishment of Seal of Assurance Plan by the MSMS Council and the naming of the Executive Committee of The Council as the Seal of Assurance Committee.

(e) Action of the Seal of Assurance Committee in (A) providing for establishment of Councilor District Medical Care Insurance Committees; (B) formation and implementation of a campaign to secure the participation of our members in the MSMS-endorsed "M-75" contracts developed by Michigan Medical Service in accordance with the Statement of Principles on Pre-paid Medical Care.

2. Referred to Michigan Medical Service, six items adopted by the 1957 House of Delegates, as follows:

(a) Report of MSMS-sponsored Opinion Study, as amended.
(b) Report of Committee on Michigan Medical Service (G. W. Slagle, M.D., Chairman), as amended.
(c) Report of Committee to Study Comprehensive Pre-paid Insurance Plans (C. I. Owen, M.D., Chairman), as amended.
(d) Resolution No. 33 re Recognition of Pathology under Medicare, as amended (from April 27, 1957 House of Delegates). (See Item 3, below.)
(e) Resolution No. 34 re Recognition of Pathology in Blue Cross-Blue Shield, as amended (from April 27, 1957 House of Delegates). (See Item 3, below.)
(f) Resolution No. 38 re Increased Benefits in Michigan Medical Service Contracts (from April 27, 1957 House of Delegates).

Michigan Medical Service reports (on July 9, 1958) that it gave careful consideration to Items (a)—(b) (c)—(f) which were implemented in the new contracts, according to the instructions of the MSMS House of Delegates.

Recognition of Pathology under Medicare (Resolution No. 33) and Recognition of Pathology in Blue Cross-Blue Shield (Resolution No. 34). A Committee of The Council was appointed to meet with a Committee of Blue Cross (Michigan Hospital Service) to devise ways and means to transfer to Blue Shield (Michigan Medical Service) the responsibility for payments to pathologists: (D. Bruce Wiley, M. D., Chairman, Utica, L. Fernald Foster, M.D., Detroit, R. L. Mainwaring, M.D., Dearborn, Ralph W. Shook, M.D., Kalamazoo, and Mr. J. C. Ketchum, Detroit). This Committee met on February 12, with the following conclusions: as Blue Shield picks up the out-patient diagnostic laboratory coverage, Blue Cross automatically will drop it. This transition could proceed for a year or so and then this group will take a new look at the situation. The arrangement proved satisfactory to all present at this important liaison meeting.

3. Establishment of full-time Chairs of Preventive Medicine and Public Health (Resolution No. 6): contact was made with the two medical schools in Michigan.

Wayne State feels "The only thing that has prevented our establishment was lack of funds for creation of a new department. It may be that the MSMS resolution will be useful to the administration of the medical schools in securing those monies which are necessary for implementing and filling a long felt want in medical education."

The University of Michigan writes: "Three problems present themselves to us at this time: (a) The curriculum of this Medical School is now under careful scrutiny, and thorough study is being made of its contemplated revision and modernization; (b) It is the policy of the Medical School Faculty to teach Preventive Medicine in all departments. A committee of liaison between the School of Public Health and the Medical School, chairmanned by Dr. Thomas Francis, Jr., is actively engaged in this important matter. At the present time courses in Public Health Administration, Public Health Economics, and Public Health Statistics for second year medical students are given three hours a week for one semester. These are cataloged as Preventive Medicine and Public Health. A one hour weekly course during the first semester, entitled Industrial Health, is given to third year medical students. During the second semester, this same group is given a course in Epidemiology; (c) On the austerity budget which has been provided by the Legislature this year, any consideration of establishing a new Chair would be unrealistic and prohibitive." Dean A. C. Furstenberg, M.D., assures MSMS that the University of Michigan Medical School Teaching Institute is giving very serious consideration to this problem: "We recognize its importance and every possible effort will be made to teach our students preventive medicine even though we may not find funds in the near future for a more comprehensive program than the one now in our curriculum."

4. Distribution of Influenza Vaccine (Resolution No. 8). The introducer of this resolution (John R. Rodger, M.D., of Bellaire) recommended on November 14, 1957 that the resolution be dropped. Meanwhile, the MSMS Committee on National Defense (September 18, 1958) had given approval to the Michigan Department of Health's "Recommendations and Background of Influenza—1957" which in the main agreed with recommendations made by the Wayne County Medical Society on this subject.

5. Referral of Healing Arts Problem to American Medical Association (Resolution No. 9). This resolution on the osteopathic problem was referred to the AMA Delegates from Michigan. The Chairman of the Delegation, Wm. A. Hyland, M.D., will treat on this subject in his annual report to the House of Delegates.

6. Expansion of Medical School Facilities (Resolution No. 10). This was referred to the MSMS Legislative Committee which aided in the medical schools' programs presented to the 1958 Michigan Legislature. A letter of thanks for tangible assistance recently was sent to the Michigan State Medical Society by Wayne State University College of Medicine.

7. Study Committee re Practice Privileges in Public Hospitals (Resolution No. 13). The Council referred this Resolution to the MSMS Legislative Committee which considered this Resolution in conjunction with amendment to the County Hospital Act of 1913, presented to the 1958 Legislature. The phraseology of this amendment was the outgrowth of meetings between hospital and professional groups, including MSMS and its Legal Counsel; the intent of the amendment was to place hospital-medical administrative powers under the hospital boards of trustees. This amendment, adopted by the Legislature, is a satisfactory solution to the nationwide dilemma created by the Gogebic (Grand View Hospital) problem.

8. Training of Ambulance Drivers (Resolution No. 20). A copy of this Resolution was published in the "Michigan Funeral Director," official publication of the Michigan Funeral Directors Association (March, 1958, Number, Page 54); in addition, a meeting was held with the Funeral Directors Association's Executive Committee, with the result that this Association shortly will incorporate in its public relations activities an educational program for ambulance drivers and assistants in which physicians in hospitals may be requested to assist.

9. Annual Registration of M.D.'s (Resolution No. 23). This resolution was referred to the Liaison Committee with the Michigan State Board of Registration in Medicine. A bill, satisfactory to this Committee, was drafted and presented to the 1958 Legislature with the express support of the Michigan State Medical Society. The bill was passed by the House of Representatives but met strong opposition in the Senate. Despite the MSMS support officially invited to the Senate on two occasions, the bill finally died in the Senate Committee.

10. Pilot Study of Insurance Reporting (Resolution No. 25). The Council gave approval to the St. Clair County Medical Society to use its Standard Insurance Form in this commendable pilot study now being conducted.

11. Streamlining of Committees. Pursuant to recommendations of G. W. Slagle, M.D., Battle Creek, and with House of Delegates' authorization, The Council appointed a Special Committee on Committees composed of: G. B. Saltonstall, M.D., Chairman, Charlevoix, L. Fernald Foster, M.D., Detroit, K. H. Johnson, M.D., Lansing, G W. Slagle, M.D., Battle Creek and D. Bruce Wiley, M.D., Utica. This Committee has held several meetings and will present its recommendations to the House of Delegates through the Supplemental Report of The Council.

12. The Mediation Committee (authorized by 1957 House of Delegates) was appointed by President Slagle, as follows: L. R. Leader, M.D., Chairman, Detroit, D. R. Boyd, M.D., Muskegon and A. E. Gamon, M.D., Saginaw (each for a three-year term); Jack Hooger-hyde, M.D., Grand Rapids and E. B. Johnson, M.D., Allegan (each for a two-year term): David McTaggart, M. D., Flint and R. W. Teed, M.D., Ann Arbor (each for a one-year term).

Recommendations

1. That The Council be authorized to send MSMS representatives to Washington, D. C., in 1959 on the occasion of the Annual Michigan Day, as recommended by last year's House of Delegates.

2. That every member of the Michigan State Medical Society be urged to become affiliated with the Beaumont Memorial Foundation either as a Life Member ($100) or a Sustaining Member ($5.00 per annum).

Respectfully submitted,
THE COUNCIL,
D. BRUCE WILEY. M.D., *Chairman*
W. B. HARM, M.D., *Vice Chairman*
A. E. SCHILLER, M.D.
O. B. MCGILLICUDDY, M.D.
H. J. MEIER, M.D.
RALPH W. SHOOK, M.D.
C. ALLEN PAYNE, M.D.
H. H. HISCOCK, M.D.
J. F. BEER, M.D.
E. S. OLDHAM, M.D.
D. G. PIKE, M.D.
O. J. JOHNSON, M.D.
W. M. LEFEVRE, M.D.
B. T. MONTGOMERY, M.D.
T. P. WICKLIFFE, M.D.
B. M. HARRIS, M.D.
G. THOMAS MCKEAN, M.D.
WILLIAM BROMME, M.D.
K. H. JOHNSON, M.D., *Speaker*
J. J. LIGHTBODY, M.D., *Vice Speaker*
G. W. SLAGLE, M.D., *President*
G. B. SALTONSTALL, M.D., *President-Elect*
L. FERNALD FOSTER, M.D., *Secretary*
W. A. HYLAND, M.D., *Treasurer*
ARCH WALLS, M.D., *Immediate Past President*

ANNUAL REPORT OF COMMITTEE ON STUDY OF PREVENTION OF HIGHWAY ACCIDENTS—1957-1958

Two meetings of the Committee on Study of Prevention of Highway Accidents were held this year. Recommendation was made to the Michigan Department of Public Instruction that for relief of highway congestion, schools be urged not to open until two or more days after Labor Day. Suggested State Legislation for the operation and equipment of ambulances was referred to the Legislative Committee by way of The Council. It was urged that all county medical societies purchase copies of the AMA booklet for laymen entitled "Are You Fit to Drive?" for distribution to appropriate groups and persons, including driver training instructor personnel, sheriffs' offices, and license examination offices located within the area of each component society.

Other perplexing problems of the medical aspects of traffic safety were discussed without definitive action on them being taken by the State Society.

Respectfully submitted,
JOHN R. RODGER, M.D., *Chairman*
G. H. AGATE, M.D.
H. E. DEPREE, M.D.
J. H. GANSCHOW, M.D.
W. N. HERBERT, M.D.
A. Z. HOWARD, M.D.
H. T. JOHNSON, JR., M.D.
E. F. KICKHAM, M.D.
E. J. LAURETTI, M.D.
SIDNEY N. LYTTLE, M.D.
W. D. PETERSON, M.D.
C. W. SELLERS, M.D.
H. J. MEIER, M.D.

ANNUAL REPORT OF ETHICS COMMITTEE—1957-1958

The only important matter referred to the Ethics Committee during the past year was the project of developing definition of a "clinic."

This is a far more formidable task than appears at first glance. What may be a "clinic," in the minds of some, may be construed in the judgment of others merely as an association of two or more doctors in a suite of offices or in the same building.

What is a "clinic" as defined by some hospital authorities may be diametrically opposed to the definition given by physicians who offer unified service in a facility outside an institution. The matter of defining "clinic" is actually of national concern.

Your Committee will continue the study of this question and hopes eventually to submit one or more definitions so that The Council and eventually the House of Delegates of the Michigan State Medical Society may make the final decision.

Respectfully submitted,
H. W. PORTER, M.D., *Chairman*
W. L. HARRIGAN, M.D., *Vice Chairman*
F. M. DOYLE, M.D.
R. J. HUBBELL, M.D.
F. H. LINDENFELD, M.D.
J. D. MILLER, M.D.
E. A. OAKES, M.D.
E. A. OSIUS, M.D.
A. H. PRICE, M.D.
P. K. STEVENS, M.D.
W. F. STRONG, M.D.
C. E. UMPHREY, M.D.
M. R. WEED, M.D.

ANNUAL REPORT OF POSTGRADUATE MEDICAL EDUCATION COMMITTEE—1957-1958

The Postgraduate Medical Education Committee met twice during the year, on January 16 and May 22. These meetings were well attended by the Committee.

Reports of attendance in the various extramural centers were reviewed.

Center	*Fall*	*Spring*	*1957-58*
Alpena	17	19	25
Battle Creek	49	48	73
Bay City	31	24	39
Cadillac	—	23	23
Flint	28	—	28
Jackson	56	55	80
Lansing	42	50	68
Midland	37	30	51
Muskegon	50	84	98
Port Huron	51	27	60
Roscommon	—	18	18
Traverse City	34	—	34
Upper Peninsula:			
Escanaba	18	17	20
Houghton	19	15	20
Iron Mountain	19	19	25
Ironwood	16	13	17
Marquette	26	23	31
Menominee	24	22	28
Sault Ste. Marie	25	20	30
Total	542	507	760

The following subjects were presented during the year:

Fall Program

Headaches
Hypertension
Management of Erythroblastosis
Newer Antibiotics
Newer Drugs of Clinical Interest
Newer Concepts in Treatment of Carcinoma of Colon
Newer Methods in Diagnosis and Treatment of Heart Disease
Obstruction of the Colon
Polyps of the Colon and Rectum
Protein Metabolism
Relationship between Pancreatic and Gastric Secretions in Peptic Ulcer Treatment
Splenectomy for Hematological Disorders
The Clinical Use of Coronary Vasodilators
Tranquilizers

Spring Program

Cardiac Surgery
Convulsive Disorders
Neo-natal Care
Polyps of Rectum and Colon
Psychiatric Techniques of Use to All Physicians
Some Recent Advances in Immunization

Splenectomy for Hematological Disorders
Staphylococcus Infections
The Clinical Use of Coronary Vasodilators
Tranquilizers

The following named physicians participated in the postgraduate program: Shirley Austin, M.D., Samuel J. Behrman, M.D., H. Waldo Bird, M.D., Edward A. Carr, Jr., M.D., Halvor N. Christensen, Ph.D., Robert D. Currier, M.D., Fred M. Davenport, M.D., Russell N. DeJong, M.D., Marion S. DeWeese, M.D., David G. Dickinson, M.D., Harold L. Fachnie, M.D., Leo S. Figiel, M.D., Steven J. Figiel, M.D., C. Thomas Flotte, M.D., F. Bruce Fralick, M.D., Bruce D. Graham, M.D., Harper K. Hellems, M.D., Jack Hertzler, M.D., Sibley W. Hoobler, M.D., Don W. McLean, M.D., Ruben Meyer, M.D., George Morley, M.D., Reed M. Nesbit, M.D., William J. Regan, M.D., Maurice H. Seevers, M.D., John M. Sheldon, M.D., Herbert E. Sloan, Jr., M.D., Harry A. Towsley, M.D., A. Burgess Vial, M.D., Robert M. Whitrock, M.D., Park W. Willis, III, M.D.

Reports from the teaching centers were reviewed and requests for new teaching centers were considered. The need for further expansion into smaller towns was indicated. It was decided that a center should be established in Roscommon, and the program was given in that area in the spring of 1958. It is hoped we will be able to establish another center in the southwestern part of the State in the fall.

A large number of subjects were suggested for the coming programs, both from the various centers and from the Committee. The Committee directed the Chairman to arrange the fall 1958 program and to make changes according to the needs of the centers.

The Committee recommended that the report of the sub-committee as to a survey of postgraduate needs in various communities in Michigan be implemented. Drs. Scott, Heidenreich and Towsley were asked by the Chairman to continue their work, and prepare a questionnaire for this survey.

The increasing interest in the intramural courses at the University of Michigan was demonstrated by an excellent attendance on all courses.

Intramural Courses	*Attendance*
Allergy	19
Anatomy	57
Basic Sciences	29
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The Committee appreciates greatly the excellent support and co-operation given to this program by the Michigan Department of Health, Wayne State University College of Medicine, and the University of Michigan Medical School.

Respectfully submitted,
J. M. Sheldon, M.D., *Chairman*
E. I. Carr, M.D.
D. A. Cameron, M.D.
H. H. Cummings, M.D.
M. A. Darling, MD..
A. C. Furstenberg, M.D.
J. R. Heidenreich, M.D.
D. H. Kaump, M.D.
R. M. McKean, M.D.
D. W. McLean, M.D.
E. J. Neill, M.D.
F. P. Rhoades, M.D.
J. M. Robb, M.D.
G. H. Scott, Ph.D.
R. M. Stow, M.D.
H. A. Towsley, M.D.
E. G. Upjohn, M.D.
S. B. Winslow, M.D.

ANNUAL REPORT OF PUBLIC RELATIONS COMMITTEE—1957-1958

During the 1957-58 year, the Public Relations Committee recommended to The Council the PR course for the Michigan State Medical Society. Previous goals of MSMS in this area were found valid once again: i.e., strengthening the PR position of the individual doctor of medicine; building a stronger public relations base at the County Society level; and maintaining friends of medicine on a state-wide basis.

MSMS Opinion Study

Since our last report, the MSMS Opinion Study of Prepaid Medical Care Coverage in Michigan has received national acclaim and approbation. It proved an invaluable instrument to the House of Delegates in its development of the Statement of Principles on Prepaid Medical Care and has served as a valuable adjunct to other MSMS Committees' action throughout the year.

Medical Assistant's Training

Beginning this year, the MSMS was able to assist in arranging for a postgraduate program for the Michigan State Medical Assistant's Society. The program has been inaugurated under the auspices of the University of Michigan. Its initial success is indicated by the class enrollment in each city which, in many instances, exceeded the physical facilities available.

Intra-profession Liaison

A special communication program was designed for the Wayne County Medical Society to facilitate the exchange of information with the individual members of that large Society. The method employed was a series of meetings with the various hospital staffs in the Detroit area. Attending the meetings were Officers and Councilors of both Wayne County and the MSMS, who presented background information on medical activities and received suggestions and recommendations to take back to respective policy groups.

Science Fairs

Greater emphasis than ever before was placed on medical society participation in local and national Science Fairs. Many county medical societies co-sponsored or co-operated in local fairs including Midland, Ingham, Macomb, Wayne, Oakland and Genesee. Genesee County Medical Society was especially honored to be a part of the National Science Fair held this year in Flint. Co-operating in this venture was the MSMS and the AMA. The Woman's Auxiliary also chose as a special project the support of local science fairs.

Exhibits

The major effort in educational exhibit was directed toward the massive audience attending the Michigan State Fair held annually in Detroit. The exhibit publicized the medical profession's Opinion Study of Prepaid Medical Care and offered the public an opportunity to express its views by means of questionnaires. In addition, educational material was distributed including 10,000 Emergency Medical Cards and 12,000 Family Health Record booklets. Other exhibits sponsored by the MSMS were shown at the MSMS Annual Session and the Michigan Rural Health Conference.

Mass Communication

Almost without exception, the major medically oriented news stories related to the profession were favorable and received broad coverage by the communication media. The public colorcast of a live operation showing an aortic transplant was especially well received by the press and was carried on a state-wide network of TV stations. This was the first time such a network had been arranged anywhere in the nation. The operation was performed in connection with the 1958 Michigan Clinical Institute over WWJ-TV, Detroit, with the assistance of thirteen technical personnel and facilities supplied by Smith, Kline & French Laboratories, Philadelphia, Pennsylvania.

In radio, the MSMS and component county medical societies continued the sponsorship of local transcribed health shows produced by the American Medical Association. As in the past, these various thirteen-week series were distributed and arranged by the MSMS over sixteen radio stations. Also continued was MSMS co-sponsorship with the University of Michigan of a transcribed health series for a broad network of Michigan radio stations.

The MSMS was active in motion picture production as work progressed on the documentary film of the Wayne County Medical Society's transition from old quarters to the New David Whitney House situated on the medical campus of Wayne State University. The film will be first shown at the formal dedication ceremonies of this building in the fall of 1958.

MSMS also received high acclaim for its production of "Something Called Epilepsy," which received its state-wide premiere this spring.

Civic Affairs

This Committee notes with praise the heightened interest in civic affairs evidenced by representatives of component county medical societies this year. A significantly increased number of societies sent delegations to the State Capitol as part of the MSMS Legislative Visitation Program. This closer contact with the men and ideas making up the legislative scene has done much to improve the profession's relations in this area. Here, as always, our thanks and congratulations are extended to the individual doctor of medicine whose assistance is so vital to success in any Public Relations endeavor.

National Weeks

The annual salute to Medical Education was observed in April this year. The MSMS participated in presenting to the public important facts and information on the various aspects of medical education in co-operation with the component county medical societies, many having their own local informational programs including TV presentations.

During Diabetes Week, MSMS contributed to the broad state-wide campaign urging a diabetes check through the family physician. All mass communication media were utilized to remind the public of the importance of an annual examination.

Public Relations Conference

The Annual Public Relations Conference was held in January. An overflow crowd of PR chairmen were present to hear an excellently prepared program.

PR Integrated

More and more of our public relations activity is being integrated into the many areas of MSMS interest. This is being done so that each effort on the part of the Society will have the maximum PR effect.

Some of the areas into which PR activity has been integrated include: the MSMS Opinion Study, Seal of Assurance Plan, Medical Care Insurance Committee, Committee on Awards, Legislative Committee, Rural Medical Service Committee, Michigan Rural Health Conference and the Michigan Health Council.

Looking Ahead

This year is history—what the next holds as challenges to medical public relations is a guess at best. But this Committee will use its best efforts to plan ahead and practice preventive public relations, preparing itself for the exigencies of the day. With the help of every member of the Michigan State Medical Society, the profession's relations with the public will continue to improve.

Respectfully submitted,
R. W. Teed, M.D., *Chairman*
A. B. Gwinn, M.D.
S. E. Andrews, M.D.
H. G. Bacon, Jr., M.D.
J. F. Beer, M.D.
H. G. Benjamin, M.D.
F. C. Brace, M.D.
H. F. Bradfield, M.D.
M. W. Buckborough, M.D.
F. J. Busch, M.D.
S. E. Chapin, M.D.
G. A. Drake, M.D.
H. D. Dykhuizen, M.D.
E. H. Fenton, M.D.
R. A. Frary, M.D.
W. G. Gamble, Jr., M.D.
L. E. Grate, M.D.
H. C. Hansen, M.D.
L. T. Henderson, M.D.
W. J. Herrington, M.D.
E. J. Hill, M.D.
J. M. Jacobowitz, M.D.
K. H. Johnson, M.D.
R. C. Kingswood, M.D.
David Kahn, M.D.
E. G. Kiehler, M.D.
J. L. Leach, M.D.
E. C. Long, M.D.
F. E. Ludwig, M.D.
G. E. Millard, M.D.
E. S. Oldham, M.D.
E. S. Parmenter, M.D.
R. C. Peckham, M.D.
G. N. Petroff, M.D.
A. C. Pfeifer, M.D.
Harold Plotnick, M.D.
W. Z. Rundles, Sr., M.D.
Sydney Scher, M.D.
J. M. Sheldon, M.D.
E. L. Spoehr, M.D.
W. F. Strong, M.D.
C. K. Stroup, M.D.
R. L. Thirlby, M.D.
C. L. Weston, M.D.
J. A. Witter, M.D.
V. M. Zerbi, M.D.
L. Fernald Foster, M.D., *Advisor*
H. J. Meier, M.D., *Advisor*
B. T. Montgomery, M.D., *Advisor*
A. E. Schiller, M.D., *Advisor*
T. P. Wickliffe, M.D., *Advisor*

ANNUAL REPORT OF THE GERIATRICS COMMITTEE—1957-1958

The Geriatrics Committee met officially two times and several members held meetings in different areas as the occasion arose for discussion of important matters.

This past winter, in co-operation with the Michigan Society of Gerontology, a two and a half day meeting was held in Ann Arbor, January 13, 14 and 15. There was a good attendance from all parts of the State and the program was well received.

The meeting was unique in that it attempted to show that a co-ordinated approach to the problems of older people was necessary for a satisfactory solution. Medical, family and community responsibility in the care of the older cardiac, diabetic, hemiplegic, and arthritic was portrayed in live clinics held in the amphitheater of the university hospital. Interesting panel discussions by physicians, physiatrists, sociologists, nurses, dietitians, and nursing home operators pointed up the various needs and methods of care of the older patient.

On the third morning an exceedingly interesting clinical program was presented by members of the Department of Post Graduate Medicine of the University. Fractures, peripheral vascular disease, prostatic obstruction, preoperative medical evaluation, and the various types of anesthesia were all discussed, giving the few physicians present an unusual treat.

On May 14 our Vice Chairman, Dr. Fred Swartz, arranged an all-day program at the Kellogg Center in Lansing on methods of rehabilitation as applied to the general hospital. It was emphasized that rehabilitative methods should start in the hospital as soon as the acute illness is passed, so that the patient will know how to continue this type of treatment after he returns home. Some two hundred physicians, hospital administrators, nurses, and social workers attended.

The Committee is continuing its efforts in the study of the chronic disease problem, particularly in providing the facilities for care in nursing homes and county homes for the aged.

Respectfully submitted,

A. Hazen Price, M.D., *Chairman*
F. C. Swartz, M.D.
F. W. Baske, M.D.
H. B. Bennett, M.D.
J. R. Brink, M.D.
S. E. Chapin, M.D.
E. F. Crippen, M.D.
P. C. Gittins, M.D.
W. D. Harrelson, M.D.
A. H. Hirschfeld, M.D.
Jack Rom, M.D.
Herbert Rosenbaum, M.D.
C. H. Ross, M.D.
L. F. Segar, M.D.
C. W. Sellers, M.D.
K. S. Wemmer, M.D.
S. C. Wiersma, M.D.
H. W. Woughter, M.D.

ANNUAL REPORT CHILD WELFARE COMMITTEE—1957-1958

The Child Welfare Committee of the Michigan State Medical Society has functioned mainly through its subcommittees.

The subcommittee on Ophthalmology has continued to cooperate with the State Health Department in the program of vision screening in schools. Much interest is also being directed toward the vision screening in the pre-school child, new instruments to be used for screening, and matters of visual safety.

The subcommittee of school health has submitted a health appraisal form which it is hoped will become standard throughout the state. The subcommittee also studied problems of special education of the handicapped, continuous health supervision of the school child, traffic laws relating to school buses, and means to gain greater participation by the doctors of the state in local school health problems.

The subcommittee on Otolaryngology has continued participating in the screening clinics for hearing defects throughout various counties of the state.

The subcommittee on adoption participated in a special meeting at the Children's Bureau in Washington on the role of the doctor in adoption. This subcommittee has drawn together the various disciplines that are interested in the problems of adoptions and is at present reviewing the general practices and goals in adoption throughout the state.

The subcommittee on accidents reported the organization of the poison control center at the University Hospital in Ann Arbor. Attention is being drawn to the establishment of similar centers throughout the state and the proper dissemination of medical knowledge to the public.

The Child Welfare Committee co-sponsored a conference on Staphylococcal Infections in Hospitals held in Lansing in September. This was attended by representatives from almost every section of the State.

The Child Welfare Committee wishes to express its appreciation for the assistance and cooperation of the Michigan Department of Health, the Michigan Crippled Children Commission, and the Michigan Department of Education. The Committee will continue to serve to the best of its abilities in advising the Michigan State Medical Society on current child problems.

Respectfully submitted,

R. M. Heavenrich, M.D., *Chairman*
W. S. Jones, Jr., M.D.
R. T. Blackhurst, M.D.
C. E. Booher, M.D.
V. G. Chabut, M.D.
H. C. Comstock, M.D.
E. L. Cooper, M.D.
Goldie B. Corneliuson, M.D.
A. J. Cortopassi, M.D.
Carleton Dean, M.D.
N. E. Durocher, M.D.
R. G. Ferris, M.D.
A. C. Gholz, M.D.
J. P. Klein, M.D.
O. L. Lepard, M.D.
F. J. Margolis, M.D.
Don Marshall, M.D.
R. J. Mason, M.D.
J. C. Montgomery, M.D.
W. J. Morrow, M.D.
M. H. Pike, M.D.
H. A. Towsley, M.D.
R. H. Trimby, M.D.
A. L. Tuuri, M.D.
E. H. Watson, M.D.
C. F. Wible, M.D.
R. K. Wise, M.D.

ANNUAL REPORT OF THE LEGISLATIVE COMMITTEE—1957-1958

Of the 951 measures introduced in the 1958 Legislative session, more than ninety required the scrutiny of the medical profession. Some were found to be of no particular consequence to medicine nor to our patients, the public. Some were "repeaters" of former years which are continually re-introduced every session for political or nuisance purposes. Some we sponsored ourselves. Others, if enacted into law, would have done irreparable harm and thus were strenuously opposed by us.

MSMS favored bills which would:

. . . provide an appropriation of $285,650 to Wayne State University to permit an expansion of its freshman medical class next year to 125 students (now seventy-five). A stipulation was written into the WSU omnibus $10 million budget bill directing its Board of Governors to effect this change within the funds provided in that bill.

. . . amend the County Hospital Act of 1913 to give the boards of trustees of the seven county facilities organized thereunder the powers to govern the professional work and qualifications of their medical staffs. The chiropractors' attempts to amend the bill to their

own purposes were fended off in both houses, and the bill became law without change, successfully climaxing four years' efforts of medical and hospital groups.

. . . amend the medical practice act by up-dating some antiquated language, changing some operational methods of the Board of Registration and establishing a five dollar annual re-registration fee on M.D.'s. The bill passed the House after an attempt by the Ways and Means Committee to double the annual fee to $10 was defeated on the floor.

The Senate Committee to which the bill was referred refused, however, on two occasions, to report the bill to that body, and there it subsequently died.

Other bills of particular interest to MSMS would:

. . . establish a new board for the registration of psychologists. This bill, introduced for the second successive year, though poorly drawn and opposed by the psychiatrists, cleared the House. It later died in the Senate. Though the two groups are trying to settle their differences between themselves, a third version is expected next year.

. . . set up a new type department of health and terminate the functions of the Office of Hospital Survey and Construction, the Mental Health Department, the Tuberculosis Sanatorium Commission and other health agencies of the state. Two such bills died, as did an MSMS-sponsored proposal to set up a permanent committee of administrative officials and Legislators. Lawmakers did pass a measure which allows the Governor to recommend reorganization changes in these and other executive department boards and commissions. Unless the Legislature objects, his changes then go into effect. This procedure is similar to the federal situation where, by executive decree, the federal Department of HEW was created and the old U. S. Public Health Service was absorbed by it. *Similar gubernatorial proposals here in Michigan will henceforth require close scrutiny.*

. . . amend the chiropodists' (podiatrists) registration act. An amendment in the bill, which was removed before its passage, would have permitted them to amputate toes. The chiropractors attempted to extend their practice to the human foot by pushing for an amendment to this bill, but this was shelved by a conference committee of the two houses.

. . . utilize empty beds in state tuberculosis sanatoriums. Of two bills introduced, one proposed a systematic closing of three of the state's four facilities; the other would have allowed the T.B. group to lease unneeded space to other governmental units, retaining control of the buildings towards a possible future need. Both bills died in the closing hours of the session and a study committee of the House and Senate was appointed to come up with an answer for next year's session.

. . . transfer the afflicted children program of the Michigan Crippled Children Commission to the Social Welfare Department. This bill stayed in committee.

. . . establish a new radiation standards safety board, to inspect and certify as safe all atomic, nuclear and radiation facilities in the state. During House consideration an annual inspection and fee schedule on all x-ray diagnostic and therapeutic machines was inserted in the bill. Changes recommended by MSMS were made in the bill by the Senate, but opponents of the measure stalled its final consideration. The session adjourned without having taken any action, thereby killing the bill.

Meanwhile, in Washington:

. . . in June the House Ways and Means Committee heard testimony on the Forand Bill, which would provide hospitalization, nursing, home, dental and surgical care to OASI-eligibles under the social security program. Because the Committee could not allocate sufficient time to permit MSMS to appear in person, a written statement of the Society was introduced into the record. At this writing no Committee action had been taken on the bill, and capitol observers predict none for this year.

. . . the Senate had under consideration (but had taken no action on) a House-approved budget limitation in the Medicare program under which civilian dependents of military personnel would be forced to utilize military hospital facilities and physicians, denying them their right of free choice. Both houses of Congress were informed of MSMS' opposition to this budget restriction.

The success of the legislative program of the MSMS, and of the public relations efforts of the profession, continue to depend on the success of the other. Every year, as one legislative problem is solved, another appears in its place. We must continue to be alert to the health needs of our state.

We, as a committee, are fortunate that the views of the MSMS are welcomed and respected by the legislators. The lawmaker's attitude toward the physician is molded by the doctor himself in his own office, and the reception that MSMS encounters in the legislative halls is the reflection of his good or bad public relations conscience.

Conversely, an ill-advised legislature can, by hasty and unknowing action, quickly destroy years of PR effort of building public faith in the profession. We owe a vote of thanks to the dozens of our colleagues who have come to Lansing and Washington to meet personally with their elected representatives and governmental officials. The rapport and understanding thus fostered contributes materially to the success of our efforts.

Respectfully submitted,

L. A. Drolett, M.D., *Chairman*
O. B. McGillicuddy, M.D., *Vice Chairman*
A. B. Aldrich, M.D.
J. J. Boccia, M.D.
William Bromme, M.D.
G. V. Conover, M.D.
J. C. Elliott, M.D.
O. K. Engelke, M.D.
E. J. Hammer, M.D.
N. J. Hershey, M.D.
Robert Huebner, M.D.
T. J. Kane, M.D.
G. T. Kelleher, M.D.
P. T. Mulligan, M.D.
J. S. Rozan, M.D.
E. W. Schnoor, M.D.
H. A. Towsley, M.D.
R. V. Walker, M.D.
D. Bruce Wiley, M.D.

ANNUAL REPORT OF RHEUMATIC FEVER CONTROL COMMITTEE—1957-1958

The Rheumatic Fever Control Committee met four times during the above mentioned year. As follows: Sept. 11, 1957, Dec. 4, 1957, Feb. 12, 1958 and May 7, 1958.

The routine work of receiving reports from the various diagnostic centers around the state receiving the budget and making a new budget for the next year required a great deal of time at these sessions.

For various reasons two diagnostic and consultation centers, one at Benton Harbor and one at Petoskey, became inactive during the year. However, one new center at Mt. Pleasant was activated.

The pamphlet "Cardiac and Rheumatic Child in School" was ordered reprinted to the extent of 15,000 copies to supply requests for copies by the Michigan Heart Association.

The diagnostic and consultation centers distributed around the State remain the most important part of this program. There are minor differences in their applications, governed by local conditions, but they are giving an important service that cannot be valued

in dollars. The large group of physicians who donate their time to the project over the years have done a great deal to improve the status of these patients unfortunate enough to contact acute rheumatic fever.

The following six physicians were sent to the Postgraduate Course in Cardiology at St. Francis Sanatorium in Roslyn, N. Y.: J. G. Bielawski, M.D., Detroit; Mario S. Cioffari, M.D., Detroit; C. L. Hoogerland, M.D., Alma; Edward H. Wagenaar, M.D., Muskegon; Donald F. Waterman, M.D., Grand Rapids; Mark F. Osterlin, M.D., Traverse City. These men were all sent for devoted service to the program.

A small group of physicians from the state have attended a one week course in Chicago on Rheumatic Fever and this Committee is awaiting a report on the program as an alternative to sending more men to St. Francis in coming years.

The Committee's search for a Medical Coordinator to replace Doctor DeVel has so far been unsuccessful.

The Michigan Heart Association has supported this program for a number of years and at present has appointed a Committee to evaluate and explain what they would like from the program. This Committee has not met. As soon as it does we will forward to The Council of MSMS its desires for consideration.

The Committee wishes to thank the staff of the central office of MSMS and all those dedicated individuals who made the program possible for their efforts.

Respectfully submitted,

S. T. Harris, M.D., *Chairman*
R. E. Fisher, M.D., *Vice Chairman*
E. W. Adams, M.D.
R. R. Barber, M.D.
J. G. Bielawski, M.D.
R. P. Bolton, M.D.
D. R. Boyd, M.D.
Carleton Dean, M.D.
T. B. Hill, M.D.
C. L. Hoogerland, M.D.
Clifford House, M.D.
J. D. Littig, M.D.
N. L. Matthews, M.D.
W. B. Prothro, M.D.
H. H. Riecker, M.D.
E. E. Schumacher, Jr., M.D.
D. S. Smith, M.D.
R. M. Stow, M.D.
B. J. Sweeney, M.D.
R. D. Tupper, M.D.
Mr. James Gerity, Jr., *Advisor*
Mr. E. T. Guy, *Advisor*

ALCOHOLISM AND THE MASKED DIAGNOSIS

(Continued from Page 1144)

spurious diagnosis on the part of the alcoholic's physician?

One important aspect of the masked diagnosis concerns research. Records used for statistics are worthless if they are not precise. Therefore, if the profession is to obtain reliable statistics and make accurate studies as to the incidence of alcohol as a complication or a primary disease, physicians will have to enter undisguised diagnoses on hospital records.

Summary and Conclusion

1. Masked diagnoses are common.
2. There has been a little improvement in late years in calling alcoholism by its own name, but not enough.
3. If studies are made on the illness, records that are accurate must be available.

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Technical Exhibits

Abbott Laboratories **Booth No. 71**
North Chicago, Ill.

Abbott Laboratories will welcome members of the medical profession at the company's exhibit of leading specialties and new products. Representatives will be in attendance to answer any questions you may have. Abbott recently introduced a number of new products which representatives at the exhibit will describe and give information on the results of clinical reports.

A. S. Aloe Company **Booth No. 75**
St. Louis, Mo.

The A. S. Aloe Company will be pleased to have you visit their display. They will have on hand a cross-section of their most complete line of physician and laboratory supplies and equipment. Featured will be the new Aloe Swedish Instruments as well as the Disposagloves, an Aloe exclusive time saver for you and your assistant.

American Ferment Company, Inc. **Booth No. 37**
New York, N. Y.

See our demonstration of the emollient, sudsing detergent action of antibacterial TOD'L. Effective in the treatment and prevention of various skin affections. Stop by for a personal supply of FALGOS, the buffered analgesic advertised only to the profession. Also featured: CAROID and BILE SALTS TABLETS, ALCAROID and SUPLIGOL.

Ames Company, Inc. **Booth No. 61**
Elkhart, Ind.

Featured at the Ames Company exhibit will be the latest developments in new, simplified diagnostic products, which are adaptable to routine examination and patient management. The many advantages of the new diagnostic products are quickly demonstrable, and you are cordially invited to stop at the Ames booth to see them.

Armour Laboratories **Booth No. 101**
Kankakee, Ill.

The Armour Laboratories will feature Sinaxar, a skeletal muscle relaxant with an entirely new chemical structure, as well as Chymar, Tryptar Ointment and other specialties of Armour manufacture. We will be looking forward to your visit to our booth.

Atlas Pharmaceutical Laboratories, Inc. **Booth No. 44**
Detroit, Mich.

ATLAS PHARMACEUTICAL LABORATORIES, INC.—INJECTABLES OF QUALITY. We cordially invite inspection of our modern plant located at 13211 Conant Ave., Detroit 12, Michigan.

Audio-Digest Foundation **Booth No. 81**
Glendale, Calif.

Audio-Digest Foundation—a subsidiary of the California Medical Association—gives the busy physician an effortless tour through the best of current medical literature each week. This medical tape-recorded "newscast"—compiled and reviewed by a professional Board of Editors—may be heard in the physician's automobile, home or office. The Foundation also offers medical lectures by nationally-recognized authorities.

Ayerst Laboratories **Booth No. 26**
Chicago, Ill.

"MUREL," a new potent antispasmodic, will be featured at the Ayerst booth. "MUREL" provides unique three-way spasmolytic action in one molecule: *anticholinergic,* to inhibit transfer of parasympathetic stimuli to effector cells of smooth muscle; *musculotropic,* to act directly on smooth muscle; *ganglionoplegic,* to exert a definite but transient ganglion block.

Baker Laboratories, Inc. **Booth No. 60**
Cleveland, Ohio

You are invited to visit our booth where Baker's Modified Milk and Varamel, two successful products for infant feeding, are on display.
Baker representatives will be glad to discuss with you the special features of Baker Milk products which promote better tolerance, less colic, better gain and improved tissue turgor for bottle-fed infants.

Barry Laboratories, Inc. **Booth No. 19**
Detroit, Mich.

Barry Laboratories will present a complete line of allergy test equipment for easily and accurately determining a patient's requirements for desensitizing against practically all known allergies.
A short visit with us will give you the facts about . . . "SPECIFIC DESENSITIZATION FOR LASTING IMMUNITY."
Also . . . other new products of interest for your inspection.

Borcherdt Company **Booth No. 79**
Chicago, Ill.

Borcherdt is featuring a new use for its Malt Soup Extract. In addition to stool softening properties, Malt Soup Extract has been found useful for the problem of Pruritus Ani. Stop in for information and a recently presented paper on this new use. Information on the influence of aciduric intestinal flora in correction of constipation and relief of pruritus ani is available.

The Borden Company **Booth No. 54**
New York, N. Y.

Most important new item at the Borden Pharmaceutical Division's booth is LIQUID BREMIL which adds all the convenience of a liquid to the significant advantages already established by BREMIL Powdered. Borden's full line of formula products is on display including MULL-SOY, the original hypoallergenic formula. Other new additions are DERMABASE and JUNITAR, the nonstaining tar bath, and MARCELLE Hypoallergenic Cosmetics, pure beauty aids for delicate skins.

Bristol-Myers Products Division **Booth No. 96**
New York, N. Y.

BUFFERIN, the better-tolerated analgesic for long-term, high-dosage salicylate therapy will be featured by Bristol-Myers. Bufferin's perfectly balanced formula assures maximum absorption without gastric irritation, resulting in good patient co-operation. Relief from arthritic "morning stiffness" is rapid. Bufferin contains no sodium, caffeine, or other sometimes contraindicated ingredients.

Brooks Appliance Company **Booth No. 10**
Chicago, Ill.

The Brooks Appliance Company will exhibit and describe in detail the technique of applying the combination pressure bandages. The moist medicated Primer Bandage plus the Dalzoflex Elastic Adhesive bandage which are used in treating leg ulcers and phlebitis. As distributors of Anatomical supports, our representatives will be in attendance to answer questions and explain in detail our Sacral, Sacral-Lumbar and Dorsal Lumbar supports. Also, the Dr. Hackett "Approved" "C" Sacral Belt. Elastic stockings, the Nulast Elastic Crepe bandages and Surgical Instruments will also be displayed.

Burroughs Wellcome & Co. **Booth No. 59**
Tuckahoe, N. Y.

NEW PRODUCTS:

The extensive research facilities of "B. W. & Co.," both here and in other countries, are directed to the development of improved therapeutic agents and techniques.

Through such research "B. W. & Co." has made notable advances related to leukemia, malaria, diabetes, and diseases of the autonomic nervous system; and to antibiotic, muscle-relaxant, antihistaminic, and antinauseant drugs.

An informed staff at our booth will welcome the opportunity to discuss our products and latest developments with you.

Cambridge Instrument Company, Inc. **Booth No. 46**
New York, N. Y.

The new Cambridge "Versa-Scribe"—the Versatile Portable Electrocardiograph; the well-known Cambridge "Simpli-Scribe" Model Direct-Writing Portable Electrocardiograph and the Cambridge Standard String Galvanometer Type Electrocardiograph will be displayed at this booth. Also other important Cambridge instruments, including the Audio-Visual Heart Sound Recorder, Operating Room Cardioscope, Educational Cardioscope, Multi-Channel Physiological Recorder, Electrokymograph, Plethysmograph, pH Meters, and Pulmonary Function Tester.

The Cambridge Engineers in attendance will be glad to give you complete information on these instruments.

Central Pharmacal Company **Booth No. 50**
Seymour, Ind.

The Central exhibit will feature NEOCYLONE for maximum prednisolone salicylate control of arthritis with moderate dosage, and ELIXIR SYNOPHYLATE for rapid oral control of asthma.

Chicago Reference Book Company **Booth No. 45**
Chicago, Ill.



The Noah Webster Bicentennial (1758-1958) is being celebrated this year. Webster's New International Dictionary, Second Edition, with Reference History and 12,000 Classified Pictorial Illustrations is the present-day end product of the painstaking research and sound principles laid down by this noted patriot-lexicographer in his first edition published in 1828. We think, read, write and express ourselves with words. Therefore, we invite you to inspect "The Supreme Authority"—a necessity in every office, home and school.

Christian Medical Society **Booth No. 13**
Chicago, Ill.

Representatives of the Christian Medical Society are here to explain the purpose and projects of the Society. On display is the book "Ideals in Medicine" . . . concerning the problems of Christian medical ethics. The authors are all practicing physicians. Copies of the Christian Medical Society JOURNAL and other literature and books are available.

Ciba Pharmaceutical Products, Inc. **Booth No. 6**
Summit, N. J.

CIBA is featuring two prescription specialties—Ritalin, a new mild stimulant-antidepressant and Doriden, a nonbarbiturate hypnotic-sedative. Ritalin raises depressed patients to normal levels of psychomotor activity without amphetamine-like over-stimulation or depressive rebound. Nonhabit-forming Doriden is already being widely used as a safe, barbiturate replacement. Representatives will be present to answer queries on these effective agents.

Coca-Cola Company **Booth No. 84**
Atlanta, Ga.

Ice-cold Coca-Cola served through the courtesy and co-operation of the Detroit Coca-Cola Bottling Company, Detroit, Michigan, and The Coca-Cola Company.

Coreco Research Corporation **Booth No. 98**
New York, N. Y.

The Coret camera embodies the principle of electronic flash and constant automatic control of such factors as distance, aperture, field, and exposure. Now, for the first time, Coreco offers a completely automatic professional clinic camera purposely designed to achieve the ultimate in surface, intra-oral, and intratubular photography. Because of the simplicity of operation, even an inexperienced doctor or nurse can achieve consistently perfect color transparencies.

Cottrell-Clarke, Inc. **Booth No. 9**
Detroit, Mich.

DePuy Manufacturing Company **Booth No. 95**
Warsaw, Ind.

DePuy Manufacturing Co., Inc., is featuring representative samples of all types of fracture equipment, especially suited to doctors in general practice. Our intermittent traction unit, Nectrac, will be shown, together with several items new on the market. Stop by our booth No. 95—you will be most welcome!

Desitin Chemical Company **Booth No. 32**
Providence, R. I.

DESITIN OINTMENT: Pioneer CLO ointment for treatment of: burns, ulcers, diaper rash, abrasions, etc.

DESITIN POWDER: Saturated with CLO, Dainty, relieves chafing, sunburn, diaper rash, etc.

DESITIN HEMORRHOIDAL SUPPOSITORIES, and RECTAL OINTMENT: Relieve pain and itching, promote healing, give comfort in uncomplicated hemorrhoids, fissures. No anesthetics or styptics.

DESITIN BABY LOTION: Protective, antiseptic, emollient, contains no mineral oil, cleanses baby skin with tender care.

DESITIN ACNE CREAM: A non-staining, flesh-tinted "Medicream" for the treatment of Acne Vulgaris, skin blemishes, effective in removal of skin oiliness. Antiseptic.

Detroit X-Ray Sales Company **Booth Nos. 51-52**
Detroit, Mich.

Dictaphone Corporation **Booth No. 34**
Detroit, Mich.

For busy doctors, the new Dictaphone Time-Master dictating machine is introduced. New in four dimensions, the Time-Master is today's automatic dictating machine. It is new in looks with slim, desk-line styling. New in science with transitor recording. New in action with touch-button performance. New in value with more built-in for more output.

Try the new Dictaphone Time-Master dictating machine and experience for yourself a new concept in *effortless* dictation.

Dietene Company **Booth No. 40**
Minneapolis, Minn.

Have YOU tasted MERITENE . . . the whole protein supplement that DOES taste good? Visit our booth, enjoy a MERITENE Milk Shake with its multiple nutritive values.

While you're there, review the Dietene Diet based on DIETENE Reducing Supplement. It provides the rare combination of low calories (1000) with high intake of protein and all essential vitamins and minerals in an interesting, effective, SAFE weight reducing diet.

Doho Chemical Corporation **Booth No. 73**
New York, N. Y.

DOHO CHEMICAL CORPORATION is pleased to exhibit:

AURALGAN: Ear medication in Otitis Media and removal of Cerumen.

OTOSMOSAN: Effective, non-toxic Fungicidal and Bactericidal (Gram negative-Gram positive) in the suppurative and aural dermatomycotic ears.

RHINALGAN: Nasal decongestant free from systemic or circulatory effect and equally safe to use on infants as well as the aged.

NEW LARYLGAN: Soothing throat spray and gargle for infectious and non-infectious sore throat involvements.

Mallon Chemical Corporation, Subsidiary of the Doho Chemical Corporation, is also featuring:

RECTALGAN: Liquid topical anesthesia, for relief of pain and discomfiture in hemorrhoids, pruritus and perineal suturing.

DERMOPLAST: Aerosol freon propellant spray for fast relief of surface pain, itching, burns and abrasions. Also obstetrical and gynecological use.

Eaton Laboratories, Inc. **Booth No. 65**
Norwich, N. Y.

New chemotherapeutic nitrofuran for bacterial diarrheas and enteritis, Furoxone® (brand of furazolidone) tablets and liquid. Perorally effective against a wide range of enteric bacteria, both Gram-negative and Gram-positive, including many species of Salmonella, Shigella, Escherichia, Proteus, Streptococcus, Staphylococcus and organisms classed as coliforms and enterococci.

Encyclopaedia Britannica, Inc. **Booth No. 72**
Detroit, Mich.

Encyclopaedia Britannica, Inc., has on display their 1958 Edition which has been acclaimed the standard of the world by imminent authorities. Have Special Exhibit Binding at a price only obtainable at this meeting. Representatives on duty at booth: Mr. T. Elliott and Mr. P. Johnson.

Encyclopedia Americana **Booth No. 1**
Grand Rapids, Mich.

Encyclopedia Americana extends an invitation to inspect their 1958 edition, especially keyed to the geophysical year. No accredited school or library is without it, as leading educators prefer and find it superior. Every major department of U. S. government is equipped with one or more sets, as modern reference is vital.

Ferndale Surgical, Inc. **Booth No. 66**
Ferndale, Mich.

Injectables, tablets, liquids and ointments. We manufacture special formulas according to your own specifications with laboratory controlled methods. Please consult our representatives at our booth, or visit our extensive laboratory and manufacturing facilities at 780 W. 8 Mile Road, Ferndale, Mich.

C. B. Fleet Company, Inc. **Booth No. 7**
Lynchburg, Va.

Fleet will feature CLYSMATHANE, its most recent contribution in the field of medication by rectum—an advanced method of xanthine therapy. CLYSMATHANE is a stable solution of theophylline monothanolamine; easily retained; rapid and uniform absorption; prompt and predictable blood levels, with no rectal irritation after prolonged use.

E. Fougera & Company, Inc. **Booth No. 100**
Hicksville, N. Y.

E. Fougera & Company, Inc., cordially invites physicians to visit their booth where products in the fields of cardiology, dermatology and radiology will be displayed. Professional service personnel will be present to discuss these products and supply clinical materials if desired.

Freeman Manufacturing Company **Booth No. 64**
Sturgis, Mich.

The Freeman line of surgical supports places particular emphasis on orthopedic braces for use when conservative measures are indicated. Rigid control and almost complete immobilization of the sacral, lumbar and thoracic area is achieved through the use of splint type construction in combination with the block and tackle effect of straps and buckles. Special designs and constructions are available for any purpose.

Geigy Chemical Corporation **Booth No. 5**
Yonkers, N. Y.

The GEIGY exhibit will feature BUTAZOLIDIN and BUTAZOLIDIN-ALKA, potent non-hormonal agent effective against arthritis and against inflammation such as superficial thrombophlebitis; PRELUDIN, non-amphetamine appetite suppressant virtually free of CNS stimulation; STEROSAN-HYDROCORTISONE Cream and Ointment, for comprehensive control of a wider range of dermatoses; MEDOMIN, which provides "natural" sleep; SINTROM, the reliable oral anticoagulant especially suited for long term therapy; and DULCOLAX suppositories and tablets for the activation of normal colonic peristalsis in constipation.

General Electric Company **Booth No. 74**
Detroit, Mich.

X-Ray Department, General Electric Company, manufacturers of complete x-ray equipment from portable diagnostic to 2,000,000 volt therapy apparatus—electrocardiograph—diathermy—X-Ray accessories and supplies. A new extremely flexible Mobile X-Ray Unit will be on display. We are looking forward to seeing you.

Gerber Products Company **Booth No. 35**
Fremont, Mich.

HIGH MEAT DINNERS provide more than nine grams of protein per container. With Gerber High Protein Cereal and the Meats-for-Babies, they offer a wide choice of well accepted foods that adequately supply the complete proteins. Ask the Gerber representative for further information on these and other top quality baby foods.

Hack Shoe Company **Booth No. 3**
Detroit, Mich.

RIPPLE® Sole shoes for men, women and children, in both regular and supportive construction will be displayed as well as other examples of the footwear fitted by this 42-year-old firm which has specialized in prescription shoes since 1916.

H. J. Heinz Company **Booth No. 20**
Pittsburgh, Pa.

See the 8 new HIGH MEAT DINNERS—Strained and Junior Foods for babies—containing substantial amounts of beef, veal, chicken or ham, respectively—all with vegetables. These are meant to be "Main Dishes" and are rich sources of meat proteins.

In addition to Heinz Orange juice for babies there are 5 new Heinz Apple-Based Juices.

There is also Nutritional Data for you, doctor, and a very informative book on prenatal care for expectant parents.

Mrs. Hermien Nusbaum and Associates **Booth No. 43**
Chicago, Ill.

Space No. 43 showing items of interest to doctors for their own family use as well as for every type of patient. TUCKS the ready-to-use witch hazel pads; TFL flexible, disposable clinic droppers; MAROC POWDER and OINTMENT for prevention and cure of diaper rash, bed sores, etc.; full line of EVENFLO infant feeding equipment; premature nipples, nipple covers for hospital sterilization; superplastic boilable bottles; Drinkup, a transition bottle top for children as well as for postoperative pediatric cases, excellent also for geriatric feeding.

Hoffmann-La Roche, Inc. **Booth No. 12**
Nutley, N. J.

GANTRISIN "ROCHE" in a single, soluble, wide-spectrum sulfonamide for potent well-tolerated antibacterial therapy.

ROMILAR *CF* "ROCHE" is a new, complete cold formula. Each of the four active ingredients of Romilar *CF* contributes to the relief of one or more of the most frequently encountered symptoms of the common cold.

Holland-Rantos Company, Inc. **Booth No. 21**
New York, N. Y.

SIMPLICITY WITH SECURITY keynotes the Koromex exhibit; H-R representatives will gladly explain:
. . . WHY patients can easily and correctly place KORO-FLEX DIAPHRAGMS;
. . . SIGNIFICANT features of KOROMEX a Vaginal Jelly when "jelly-alone" is advised;
. . . Three-fold effectiveness of NYLMERATE Jelly and Solution Concentrate;
. . . Clinical value, in minor skin disorders, of HOLLANDEX Silicone Ointment.

G. A. Ingram Company **Booth Nos. 86-87**
Detroit, Mich.

The G. A. Ingram Company will display new instruments plus diagnostic equipment for office procedure in cancer detection as well as have a display of "What's new in Physical Medicine."

Kremers-Urban Company **Booth No. 58**
Milwaukee, Wis.

Products sure to interest you are featured at the KREMERS-URBAN exhibit booth:

AMPERONE, for rapid, effective relief of menopausal symptoms accompanied by anxiety and tension.

LEVSINEX, most effective anticholinergic agent available now in extended action tablets.

AMGESIC, the only cold tablet effective at *any* stage of the common cold.

KUTAPRESSIN, for rebellious skin diseases and in prevention of capillary hemorrhage.

A. Kuhlman & Company **Booth No. 38**
Detroit, Mich.

Lea & Febiger **Booth No. 89**
Philadelphia, Pa.

You are most welcome to stop at Booth 89 and examine these 1958 books: Quimby, Feitelberg and Silver—Radioisotopes in Clinical Practice; Jaffe—Tumors and Tumorous Conditions of the Bones and Joints; Pollack—Treatment of Breast Tumors; Boyd—Pathology for the Physician; Taylor—Essentials of Gynecology; Watkins—Manual of Electrotherapy; Grollman—Pharmacology. These are just a few of the many titles available for your inspection.

Lederle Laboratories **Booth No. 25**
Pearl River, N. Y.

Eli Lilly & Company **Booth No. 91**
Indianapolis, Ind.

You are cordially invited to visit the Lilly exhibit located in space number 91. The Lilly sales people in attendance welcome your questions about Lilly products and recent therapeutic developments.

J. B. Lippincott Company **Booth No. 8**
Philadelphia, Pa.

J. B. Lippincott Company presents, for your approval, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching, are a continuation of more than 100 years of traditionally significant publishing.

Maico Hearing Service **Booth No. 88**
Detroit, Mich.

90 per cent of America's precision test instruments are Maico made. Maico produced the first precision hearing test instrument to receive acceptance of AMA's council on Physical Medicine in 1939. Maico produced the first wearable vacuum tube aid to receive AMA acceptance 1940. Maico produced the first all transitor hearing aid 1953.

Maltbie Laboratories Division **Booth No. 49**
Belleville, N. J.

You are cordially invited to visit the Maltbie Laboratories exhibit featuring: Desenex® Night & Day treatment of athlete's foot; Bifran® with a plus for obesity; Cholan preparations with effective hydrocholeresis and superior spasmolysis; Caldesene® Medicated Powder for diaper rash; and Nesacaine®, the first local anesthetic more potent yet less toxic than procaine.

Marion Laboratories, Inc. **Booth No. 70**
Kansas City, Mo.

OYSTER SHELL CALCIUM: Research demonstrates "twice the percental increase in total blood calcium with oyster shell calcium." Available as Os-Cal, Os-Vim or Os-Quin Tablets.

DUOTRATE: Anginal attacks reduced both in frequency and severity with DUOTRATE. Marion's new Plateau CAP principle of release. ONE capsule for all day comfort. ONE capsule for all night security.

Mead Johnson & Company **Booth No. 90**
Evansville, Ind.

The Mead Johnson exhibit has been arranged to give you the optimum in quick service and complete product information. To make your visit to the booth productive, specially trained representatives will be on hand to tell you about:

MEAD JOHNSON FORMULA PRODUCTS FAMILY, which features *Lactum, Olac, Dextri-Maltose, Sobee, Nutramigen* and *Probana.* All are easy to prescribe, easy to prepare, conveniently packaged and readily available.

THE COLACE PRODUCTS FAMILY, for the management of constipation in all your patients. *Peri-Colace* softens stools and stimulates peristalsis when bowel motility is inadequate. Colace softens stools without laxative action when bowel motility is adequate.

TEMPRA, the first physician-controlled antipyretic analgesic in two liquid dosage forms. Tempra is available on Rx only. It comes in wild-cherry-flavored drops and mint-flavored syrup.

SUSTAGEN, the only single food complete in all essential nutrients. It provides every nutrient that medical, surgical or poorly nourished patients need for nutritional maintenance and rehabilitation.

Medco Products Company **Booth No. 63**
Tulsa, Okla.

Presenting the MEDCO-SONLATOR. Providing a new concept in therapy by combining muscle stimulation and ultra sound simultaneously through a SINGLE Three-Way Sound Applicator.

The MEDCO-SONLATOR is a distinct advance in the effectiveness of physical therapy in your office or hospital. A few minutes spent in our booth should prove of value to your practice.

Medical Arts Supply Company **Booth No. 77**
Grand Rapids, Mich.

FINEST IN MEDICAL EQUIPMENT
DISTRIBUTOR FOR ALL MAJOR MANUFACTURERS

ALLISON	LIEBEL FLARSHEIM
BURDICK	RITTER
HAMILTON	SHAMPAINE

We would like to furnish you with recommended plans for your new office. We hope you will have the opportunity in the very near future to visit us at our very fine show rooms at 233 Washington Street, S.E., Grand Rapids 2, Michigan.

See you at Booth 77.

Medical Protective Company **Booth No. 99**
Fort Wayne, Ind.

MALPRACTICE PROPHYLAXIS . . . "Professional Protection Exclusively" by The Medical Protective Company achieves new records of security for the doctor. Complete program of PREVENTION, DEFENSE and PROPER PROTECTION against LOSS has reduced average per capita incidence of suits to less than one-third that of 30 years ago. "Specialized Service makes our doctor safer."

Merck Sharp & Dohme **Booth No. 18**
Philadelphia, Pa.

A new and very promising diuretic is featured at the Merck Sharp & Dohme Booth. Since the principal action of "DIURIL" is a marked enhancement of the excretion of sodium, chloride and water, it has been designated a saluretic agent. This new compound achieves a profound electrolyte and water diuresis without attendant toxic effects and other disadvantages peculiar to the mercurials and certain other diuretic agents.

Technically trained personnel will be present to discuss this and other subjects of clinical interest.

Wm. S. Merrell Company **Booth No. 41**
Cincinnati, Ohio

Quiactin for quieting . . . an improvement over present tranquilizers for tension-anxiety states; patients remain alert, feel better, and TACE, a "treatment of choice" for suppression of lactation will be featured.

You are invited to discuss these and other Merrell research products with our representatives.

Meyer and Company **Booth No. 55**
St. Clair Shores, Mich.

Michigan Medical Service **Booth No. 4**
Detroit, Mich.

You are cordially invited to visit our booth to obtain current information regarding Michigan Medical Service (Blue Shield). Our representatives will gladly visit with you and answer any questions you may have with regard to your Blue Shield Plan.

Milex Products **Booth No. 69**
Oak Park, Mich.

The representatives at our booth will be pleased to demonstrate the new instrument on Cold Conization of the Cervix as well as specialties in Infertility, Marriage Counseling, Birth Control, Malpositions of the Uterus, and Premenstrual tension.

Miller Surgical Company **Booth No. 23**
Chicago, Ill.

See the Miller Electro-Surgical Units and Accessories such as Snares, Suction-Coagulation attachments, Grasping Forceps, etc. Also a complete line of Diagnostic Equipment consisting of Illuminated Otoscope, Ophthalmoscope, Eyespud with Magnet, Transillumination Lamps, Mirror Headlite, Vaginal Speculum with Smoke Ejector and Gorsch designed Operating scopes and Stainless steel Proctoscopes, all sizes, with magnification.

Wm. R. Niedelson Company **Booth No. 102**
Detroit, Mich.

The most frequently purchased 100 MA X-Ray in the United States, the "ROCKET 100" by PROFEXRAY will be displayed. The JONES "AIR BASAL" will also be on view, as will the newest CARDIOGRAPH models.

Noble-Blackmer, Inc. **Booth No. 27**
Jackson, Mich.

Bill Farrand, Bob Townsend, Joe Ahearne and Joe Loeher will be ready, willing and able to either spend a minute greeting you or an hour demonstrating a Ritter table, an office model Bovie, Balsameter, Diathermy, an Autoclave or any of the new biopsy instruments. Please stop and see us.

Nordmark Pharmaceutical Laboratories, Inc.
Irvington, N. J. **Booth No. 36**

LEVONOR, a new compound for suppression of appetite without CNS overstimulation, will be featured. The smooth action of LEVONOR permits its use during the evening hours; it may be given as late as 8 p.m. without keeping the patient awake. Latest clinical studies will be available. Also displayed: FERRONORD LIQUID and FERRONORD tablets —the chelate hematinic that provides more rapid hemoglobin response with virtually no undesirable side effects.

Ortho Pharmaceutical Corporation **Booth No. 39**
Raritan, N. J.

ORTHO cordially invites you to visit booth No. 39 where the well known line of obstetrical and gynecological pharmaceuticals will be on display. Particular emphasis will be placed on DELFEN Vaginal Cream, ORTHO's most spermicidal contraceptive. Also on display will be RARICAL Iron-Calcium Tablets. ORTHO representatives will welcome the opportunity to discuss these and other products with you.

Parke, Davis & Company **Booth No. 29**
Detroit, Mich.

Medical service representatives of our staff will be in attendance at our exhibit to discuss important Parke-Davis products which will be on display.

Pelton & Crane Company **Booth No. 80**
Charlotte, N. C.

Pet Milk Company **Booth No. 82**
St. Louis, Mo.

We will be pleased to have you stop and discuss the variety of time-saving material available to busy physicians. Our representatives will be on hand to discuss the merits of "Pet" Evaporated Milk for infant feeding and INSTANT "Pet" Nonfat Dry Milk for special diets.

Procter & Gamble Company **Booth No. 22**
Cincinnati, Ohio

Ivory Soap (Procter & Gamble) offers a series of time-saving leaflet pads for doctors, each pad containing fifty identical tear-out sheets. These sheets, which may be given to patients, contain routine instructions covering six different topics. There are also samples of other free, helpful material prepared especially for physicians.

Mrs. Christyne Schwab in charge.

Professional Management **Booth No. 85**
Battle Creek, Mich.

"A Complete Business Service To The Medical Profession"

Pioneers in the field of Management Counsel for the physician, broad experience for the past 26 years has produced PM account executives with wise judgment. At their finger-tips are accurate statistics for comparison and collection controls that produced a maximum collection average for thousands of physician clients last year.

The "PM" trademark is a symbol of integrity.

Purdue Frederick Company **Booth No. 76**
New York, N. Y.

The Purdue Frederick Company will present:

ProBilagol: Liquid cholecystokinetic for the dynamic therapy of biliary tract diseases. Contains d-glucitol and homatropine methylbromide, acting by contracting the gallbladder and relaxing the sphincter of Oddi.

Senokot: Constipation corrective. Concentrated total senna glycosides which activate Auerbach's plexus, initiate normal neuroperistalsis.

Senokap: Produces timed stool softening and elimination by the addition of dioctyl sodium sulfosuccinate to Senokot.

Senobile: Utilizes the peristaltic action of bile salts with Senokot.

Senokot with Psyllium: Adds the bulk effect of psyllium to Senokot.

Randolph Surgical Supply Company **Booth No. 14**
Detroit, Mich.

R. J. Reynolds Tobacco Company **Booth No. 42**
Winston-Salem, N. C.

Welcome to the R. J. Reynolds Tobacco Company Exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of CAMEL, WINSTON Filter, Menthol Fresh SALEM, or CAVALIER King Size Cigarettes.

A. H. Robins Company, Inc. **Booth No. 33**
Richmond, Va.

The cough "season" finds ROBITUSSIN and ROBITUSSIN A-C featured at the Robins exhibit. The antitussive component in glyceryl guaiacolate which

increases respiratory tract fluid almost 200 per cent. ROBITUSSIN A-C includes an antihistamine and codeine. Also shown are Robins' antirheumatic preparations PABALATE and PABALATE-HC (with hydrocortisone), the skeletal muscle relaxant ROBAXIN, the new antihistamine DIMETANE, and ALLBEE WITH C (B-complex with ascorbic acid).

J. B. Roerig & Company **Booth No. 62**
New York, N. Y.

J. B. Roerig and Company, booth No. 62, will feature TAO (pronounced Tay-o), a new antibiotic derivative designed for superior control of common infections due to Gram-positive and some Gram-negative organisms. Literature and samples are available at the booth which physicians and their guests are cordially invited to visit.

Ross Laboratories **Booth No. 11**
Columbus, Ohio

ROSS LABORATORIES: As adjunct to the physician's oral reassurance of anxious new parents the ROSS DEVELOPMENTAL SERIES offers visual materials (INDIVIDUAL CASE RECORDS, BEHAVIORAL DEVELOPMENT FOLDERS, EMOTIONAL DEVELOPMENT BOOKLETS). Current concepts stress the development of the infant as a whole being. Physiologic infant feeding may be discussed with your SIMILAC Representative.

Rupp & Bowman Company **Booth No. 48**
Berkley, Mich.

We cordially invite you to visit us and view the latest in Doctor and Laboratory Equipment and Instruments. On hand to greet you will be Mr. Tony Ferrara, Mr. Eric Goullaud, Mr. Al Hemmingsen, Mr. Alex MacKinnon, Mr. Tony Patti, Mr. Myron Ripp and Mr. Bert Williams.

Sandoz Pharmaceuticals **Booth No. 97**
Hanover, N. J.

Sandoz Pharmaceuticals cordially invites you to visit our display at booth No. 97.
FIORINAL: a new approach to therapy of tension headache and other head pain due to sinusitis and myalgia.
BELLERGAL Space Tabs assures around the clock control of functional complaints (example—menopause symptoms) in the periphery where they originate.
BepHan Space Tabs new approach to prolonged maintenance of low gastric acidity.
Our representative in attendance will gladly answer questions about these and other Sandoz products.

W. B. Saunders Company **Booth No. 2**
Philadelphia, Pa.

Mr. Rozema will again be on hand with the complete Saunders line. Books of special interest published within the last few months include: Roberts: Difficult Diagnosis; Callander: Surgical Anatomy; von Oettingen: Poisoning; Flint: Emergency Treatment and Management; Aegerter & Kirkpatrick: Orthopedic Diseases; Higgins & Orr: General Surgery; Hollender: Psychology in Medical Practice; and Terracol & Sweet: Diseases of the Esophagus.

Schering Corporation **Booth No. 17**
Bloomfield, N. J.

The Schering exhibit will feature TRILAFON, extremely potent tranquilizer and antiemetic, capable of alleviating manifestations of emotional stress without apparent dulling of mental acuity.
Extraordinary potency in behavorial effects without corresponding increase in autonomic, hematologic or hepatic side effects provides a favorable therapeutic ratio and excellent versatility in clinical use.

Julius Schmid, Inc. **Booth No. 57**
New York, N. Y.

An interesting and informative exhibit featuring IMMOLIN Cream-Jel for use without a diaphragm; RAMSES Flexible Cushioned Diaphragm; RAMSES Vaginal Jelly; VAGISEC Jelly and Liquid for vaginal trichomoniasis therapy; and XXXX (Fourex) Skin Condoms, RAMSES and SHEIK Rubber Condoms for the control of trichomonal re-infection.

G. D. Searle & Company **Booth No. 93**
Chicago, Ill.

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.
Featured will be Dartal, the new tranquilizing agent which controls activities associated with anxiety states and other neuroses; Enovid, the new synthetic steroid for treatment of various menstrual disorders; Zanchol, a new biliary abstergent; Nilevar, the new anabolic agent, and Rolicton, a new safe, non-mercurial oral diuretic.
Also featured will be Vallestril, the new synthetic estrogen with extremely low incidence of side reactions; Pro-Banthine and Pro-Banthine with Dartal, the standards in anti-cholinergic therapy; and Dramamine and Dramamine-D, for the prevention and treatment of motion sickness and other nauseas.

Smith, Kline & French Laboratories **Booth No. 92**
Philadelphia, Pa.

SKF features (1) new Temaril® Tablets, an oral medication for relief of itching, regardless of cause; (2) "Vi-Sorbin," a potent modern tonic containing B_{12}, B_6, iron, folic acid and the Absorption Enhancement Factor, D-Sorbitol; (3) Compazine®, the tranquilizer and antiemetic virtually free from drowsiness and depressing effect; and (4) Thorazine®, one of the fundamental drugs in medicine.

E. R. Squibb & Sons **Booth No. 78**
New York, N. Y.

E. R. Squibb & Sons has long been a leader in development of new therapeutic agents for prevention and treatment of disease. The results of our diligent research are available to the Medical Profession in new products or improvements in products already marketed.
At Booth 15, we are pleased to present up-to-date information on these advances for your consideration.

Swift and Company **Booth No. 94**
Chicago, Ill.

High Meat Dinners—strained for infants; chopped for "juniors"—are the newest items in the Swift's Meats for Babies line of products. These one-dish meals with a very large proportion of meat as the base, supply a substantial amount of essential high quality animal protein. Reprints of the latest clinical research sponsored by Swift, "Metabolism of Iron In Pregnancy and the Premature Infant," are available.

Testagar & Company, Inc. **Booth No. 28**
Detroit, Mich.

Stop by and see Q Caps-Amodex; the newest concept in time release capsules. It's clever! It's unique! Q Caps-Amodex for high level anorexigenic activity without excitation. Q Caps-Amodex insures accurate time release.

Thermo-Fax Copying Products **Booth Nos. 15-16**
Lansing, Mich.

Anyone in your office can make itemized patient statements at the touch of a button.
The key to this Instant Electric Billing is the THERMO-FAX "Secretary" Copying Machine. With it, you can prepare 1,000 itemized statements in a single morning. You can copy other important papers, too —even electrocardiograms—in just four seconds.

S. J. Tutag & Company **Booth No. 67**
Detroit, Mich.

S. J. Tutag & Company will feature GERITAG. Recent publications have attested to the advantage and efficacy of the 20 to 1 ratio of androgen to estrogen in the treatment of the ever present "aging" problem. Geritag formula embodies this very relationship plus a vital range of 9 vitamins, 10 minerals, Rutin and 3 lipotropic agents.

The Upjohn Company **Booth No. 53**
Kalamazoo, Mich.

Professional representatives of The Upjohn Company are eager to contribute to the success of your meeting. We are here to discuss with you products of Upjohn research that are designed to assist you in the practice of your profession. We solicit your inquiries and comments.

U. S. Vitamin Corporation **Booth No. 31**
New York, N. Y.

Exhibit features C.V.P., an exclusive water-soluble citrus bioflavonoid compound with ascorbic acid . . . for restoring and maintaining capillary integrity. Corrects or minimizes capillary abnormality and bleeding associated with diabetes, hypertension, epistaxis, purpura, gingivitis and certin forms of gastro-intestinal, rectal and vaginal bleeding. Effective therapy in habitual and threatened abortion.

Wallace Laboratories **Booth No. 83**
New Brunswick, N. J.

The representatives of Wallace Laboratories will be glad to discuss MEPROSPAN—the new meprobamate prolonged release capsules for 'round the clock relaxation of mind and muscle on half the dosage.

Warner-Chilcott Laboratories **Booth No. 56**
Morris Plains, N. J.

A visit to the Warner-Chilcott booth will be well worth while, especially in the interests of your cardiovascular patients, and those with mental or emotional disturbance. The booth features two clinically tested and proven agents: *Peritrate*—to aid you in the management of patients with angina pectoris; and *Pacatal*—a profound ataractic agent with a "normalizing" action.

Westwood Pharmaceuticals **Booth No. 47**
Buffalo, N. Y.

FOSTEX CREAM and FOSTEX CAKE are new, easy to use, therapeutically effective medications in the treatment of acne, dandruff and seborrheic dermatitis. They contain Sebulytic T (lauryl sulfoacetate, alkyl aryl polyether sulfonate and dioctyl sulfosuccinate), a unique combination of penetrating anionic soapless cleansers and wetting agents which are highly antiseborrheic and exert antibacterial and keratolytic effects . . . enhanced by sulfur, salicylic acid and hexachlorophene.

FOSTEX CREAM is applied as a therapeutic skin wash in the initial treatment of acne, when maximum degreasing and peeling are desired. FOSTEX CAKE is used as a therapeutic skin wash for maintenance therapy to keep the skin dry and substantially free of comedones. Fostex Cream is also used as a therapeutic shampoo in dandruff.

White Laboratories **Booth No. 68**
Kenilworth, N. J.

Winthrop Laboratories, Inc. **Booth No. 30**
New York, N. Y.

Featuring Plaquenil, a new Aralen derivative which is remarkably effective in inducing remissions in rheumatoid arthritis. Pharmacologically, Plaquenil has approximately 1/5th the toxicity of chloroquine; clinically, the incidence of side effects is markedly reduced.

Zimmer Manufacturing Company **Booth No. 24**
Toledo, Ohio

Zimmer Manufacturing Company will exhibit in booth No. 24 the new Zimshear pin cutters of a radically new design which have proven to be extremely durable in use to date, also the new Hip Exerciser, the new Myo Collar for flexion and many new instruments for use in Orthopedic Surgery.

A LAWYER LOOKS AT THE MEDICAL PROFESSION

(Continued from Page 1124)

closed panels of physicians more directly responsible to their employers than to their patients. The free choice of physicians will have vanished. The incentives to reach for new medical horizons will have been weakened. Eventually—but inevitably—a noble profession will have been reduced to a sordid routine business.

I believe strongly that whatever threatens the freedom and independence and virility of the medical profession gravely threatens you—the public.

I am an equally strong believer in the simple theory that the most powerful repellant of any such threat to the public interest is an aroused public opinion.

I have tried to point out to you today some of the areas in which I think you and the medical profession, jointly, have a vital stake. I have attempted to outline some of the reasons why I think the medical profession is entitled to your whole-hearted support in its opposition to those measures and those forces which seek to make it subservient to the control of nonmedical agencies.

If, to any small degree, I have succeeded, I shall feel that I have had generous reward.

American Medical Association

107th Annual Meeting—San Francisco, California

June 23-27, 1958

The annual session of the American Medical Association for the year 1958 was, as always, actually a congress of many organizations relating to the practice of medicine—both scientific and socio-economic.

The American Diabetic Association produced two important reports. Harvard's Research Laboratory, Drs. Alno Arnald, Jean-Piere Feiber, Buris Boshell, Donald Martin and George Thorne, have reported a glucose substitute which diabetics can digest without the addition of insulin. Fructose by intravenous injection may be used, but it is only partially digested. If taken by mouth it is converted into glucose. A new substance "sorbitol", a sugar-alcohol, is easily made by hydrogenating either glucose or fructose, the common sugars in most carbohydrate foods. Sorbitol is about as nutritious as sugar and can be readily digested by insulin deficient patients. It is not changed into glucose in the process of digestion.

Jerome A. Conn, M.D., University of Michigan, Ann Arbor, winner of this year's "Banting Memorial Lectureship." reported that potential diabetics can be recognized by the use of a special cortisone test. A five-year study has shown that about 25 per cent of apparently healthy relatives of diabetic patients react, but only 3 per cent of others. Dr. Conn reports: "This becomes of great importance because it pinpoints the population group in which undiagnosed diabetic patients will be found. Detection drives must find a way to take advantage of this information."

Conference of Presidents

The Fourteenth Annual Conference of Presidents and Other Officers of State Medical Societies was held Sunday, June 22, 1958 in the Sheraton-Palace Hotel. This is the group first called into conference by Michigan's Andrew Brunk.

The Conference for 1958 was unusually important and outstanding in subject presentation. Programs were presented by four widely disbursed speakers, but could have well been by collaboration. E. L. Bernhard, M.D., Milwaukee, the new President, spoke on "Draught in the Grass Roots". He emphasized the need of leadership in the local level not only in medical affairs but economic and social problems. Most social and economic progress seems to grow all at once in every hamlet and area—they seem to be spontaneous. His plea for the doctors with ideas—to express them, not to wait for direction from "higher up". Only concerted action of large numbers will solve or resist the too evident encroachments on the medical profession.

Senator Wallace F. Bennett of Utah spoke on "Inflation." He pointed to the many extensions of medical service by the government to new groups, the misuse of plans and programs of undoubted need and value, and the enormous costs which necessarily produce inflation. The purchasing value of the dollar is surely decreasing. He mentioned many projects suggested to the Congress to extend aid to increasing numbers and the ever ready "askers" for more. There are also insidious pressure groups within and without the government which would like to assume directive supervision of too many professional and medical functions which the profession should retain.

At this time, a movie was presented, "Freedom in Action" developed by Texas and stressing the need for every citizen who wishes to preserve his independence to take an active part in the life and activities of his community, his city, state and the federal government. A fantastic picture was given of what could occur if a person or community does not take active interest in politics, schools and other activities. Interested persons with a selfish motive could and do get control and run matters to their own advantage. A wonderful and intriguing picture.

Rowland Jones, Executive Vice President of the American Retail Federation, Washington, D. C., spoke very enthusiastically and impressively on the topic "Shall We Live Together?". He emphasized the growing need for every self-interested community group to develop and exercise understanding and interest in their neighbors' problems, to exchange ideas, and by working together to accomplish tremendous good. He has organized inter-profession or trade groups who meet informally and exchange ideas—no formal program or goal—just an attempt to know and understand the neighbor's ambitions, ideals, aspirations. Such groups are needed in every community, and the good which might develop is obvious.

Frank Rockwell Barnett, of the Richardson Foundation, Inc., New York, was the final speaker. He held the audience spellbound by his philosophy. He mentioned many experiences. In the military, he had been sent to study Spanish but wound up in a Russian language school, studied it for nearly two years and then was given a rifle to carry. Toward the end of the war, he was detailed to interpret for Russians at the meeting of forces at the Elbe River. He told of long-time planning

for every move; "Strategy Is Everybody's Business" was illustrated by many intimate stories. In every walk of life, one must make long-term plans. Well-thought-out strategy pays big dividends if used to advantage. Life without an objective is pointless. Others are making plans involving the use or control of medical practice. Many pressure groups have made their strategic designs over many years, and if the medical profession is not alert will again make attempts to nationalize the health field. Mr. Barnett gave a startling message to the effect that well-directed strategy will protect only if it has been effective and understanding. The portent is ominous but not hopeless.

A few quotations are offered to give his line of warning:

"Doctors prescribe for patients. . . . May I, as a layman prescribe and be stern with this distinguished body? . . . The "patient" in this case is the body politic: a free society which encourages individual initiative in business, law, medicine, and engineering. The diagnosis is . . . cancer in the intestines and paralysis of the will. The prognosis is an untimely end for a patient too soft to endure surgery, too undisciplined to take medicine, and too purposeless to survive. . . .

". . . Unless one man out of every three in this room commits himself to an active role in public affairs . . . it is unlikely your profession will survive its competition. . . . There is a new kind of COMPETITION in the world today . . . designed to destroy—utterly and for all time—the moral, legal, and political framework of the civilization which undergirds our voluntary society. If Genghis Kahn & Co. win this competitive struggle, there will be no second chance for freedom. . . .

"The American Voluntary Society faces two mighty competitors:—World Communism and International Socialism. . . . It is an *immediate* threat. Its weapons are violence, subversion, propaganda and blackmail. . . . The danger of Socialism is largely internal and long range, its weapons education, persuasion and the ballot box. . . .

"This requires that the managers and professional leaders of our society must make public affairs their avocation their full time hobby.

". . . Pearl Harbor proves a point . . . it was an event that permanently changed all our lives . . . we learned that war starts not at the time of a surprise attack—but when the enemy completes *his* final plans and commits *his* forces to conflict . . . again we are at war—a new kind of war with unorthodox rules . . . our failure to recognize . . . does not affect the designs. . . . Again it is the enemy . . . who decides to involve the United States in conflict. . . .

"Owing to science the Atlantic Ocean is no wider than the Rio Grande. . . . The Pacific is no wider than Lake Michigan . . . today the front is everywhere. Certain intangibles can literally "wash out" the material foundations of defense. . . .

"History teaches that when a people put indulgence before discipline, worship welfare and discourage risking, they are likely soon to be forced into bankruptcy by a more *vital competition*. . . . The greatest threat . . . may not stem from guided missile . . . or . . . atomic weapons. . . . We have brilliant scientists, able generals . . . inventive industrials . . . who can safeguard national security on the technological front. . . . It is in the realm of 'Fourth Dimensional Warfare' . . . or psycosocial combat that we are hopelessly out-classed. . . . We have not learned how to fight communism without a hot war. . . .

"The communists . . . use the strategy of terror to frighten the west into inaction, to promote class warfare and thus divide and conquer . . . Communism is not just an idea . . . it is a power technique . . . behind the Iron Curtain there are more than 100 schools and colleges of propaganda and subversion . . . we must not be afraid of competition in the classroom, for young America in the next two decades is going to face the most ruthless competition the world has ever known . . . unfortunately American civilization can be crippled and even destroyed by concepts which lead to changes—and ultimately to "power politics". . . . It was the American Revolution which gave the world the first revolutionary idea that government is the servant, not the master, of the people. . . .

"Great events are always determined by minorities. Forty years ago communism was confined to a single rented room in Zurich. . . . Less than 100 men made the American Revolution . . . there is more than enough talent in this room to change the course of history. But time is important. In politics, as in war and in business, time is only on the side which knows how to use it."

President-elect and Awards

Louis M. Orr, M.D., urologist of Orlando, Fla., was chosen unanimously as president-elect for the coming year. Dr. Orr, who in recent years has been vice speaker of the House of Delegates and chairman of the AMA Committee on Federal Medical Services, will become president of the American Medical Association at the June, 1959, meeting in Atlantic City. He then will succeed Gunnar Gundersen, M.D., of La Crosse, Wis., who became the 112th president at the inaugural ceremony, June 24, 1958, in the Rose and Concert Rooms of the Sheraton-Palace Hotel.

The 1958 Distinguished Service Award of the American Medical Association was voted to Frank Hammond Krusen, M.D., professor of physical medicine and rehabilitation at Mayo Foundation, Rochester, Minnesota, for his outstanding achievements and contributions in the field of physical medicine and rehabilitation. For only the fourth and fifth times in AMA history, the House also approved special citations to laymen for outstanding service in advancing the ideals of medicine and contributing to the public welfare. Recipients of these awards were Mrs. Charles W. Sewell of Otterbein, Indiana, who has spent forty-five years in rural health work, and Gobind Behari Lal, Ph.D., distinguished science writer and Pulitzer prize winner.

Total registration reached 43,260 including 13,334 physicians.

United Mine Workers

Major discussion of relations between medicine and the UMWA Welfare and Retirement Fund centered on a reference committee report which concurred in a Board of Trustees opinion that final action on two resolutions adopted in December, 1957, should be postponed until the final report of the Commission on Medical Care Plans is received.

One of those resolutions, Number 20, declared that "a broad educational program be instituted

at once by the American Medical Association to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the 'Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund' adopted by this House last June." The other resolution, Number 24, called for the appropriate AMA committee or council to engage in conferences with third parties to develop general principles and policies which may be applied to their relationships with members of the medical profession.

In explaining its position that final action on the two resolutions should be taken only after proper study, the reference committee said it "anticipates that the final report of the Commission on Medical Care Plans will contain recommendations serving to clarify the relationships between the medical profession, the patient and third parties, and the committee has been assured that this can be expected." The committee also urged the Commission to present its recommendations no later than December, 1958.

The House of Delegates, however, by a vote of 110 to 72, adopted a floor amendment "that this section of the Reference Committee report be amended to show that our AMA Headquarters Staff is directed, under supervision of the Board of Trustees, to proceed *immediately* with the campaign which was originally ordered at Philadelphia last December, that no further delays will be tolerated, and that the council on Medical Service be relieved of any further responsibility in this matter."

Social Security Coverage

In considering seven resolutions dealing with the inclusion of self-employed physicians under the Social Security Act, the House disapproved of three which called for polls or a referendum of the AMA membership, one which favored state-by-state participation in Social Security, and two which called for compulsory inclusion on a national basis. Instead, the House adopted a resolution pointing out that "American physicians always have stood on the principle of security through personal initiative," and reaffirming unequivocal opposition to the compulsory inclusion of self-employed physicians in the Social Security system.

On the question of polls, the House expressed the opinion that any poll should be taken on a state-by-state basis and the results transmitted to the AMA delegates from that state. It also pointed out that since there is no provision in the Constitution and Bylaws for a referendum of members, such a referendum would usurp the duties and prerogatives of the House of Delegates, which is the Association's policy-making body.

Voluntary Health Organizations

Dealing with problems that have arisen in the raising and distributing of funds since development of the concept of united community effort, the House adopted the following statement offered in the form of amendments from the floor:

"1. That the House of Delegates reiterate its commendation and approval of the principal voluntary health agencies.

"2. That it is the firm belief of the American Medical Association that these agencies should be free to conduct their own programs of research, public and professional education and fund raising in their particular spheres of interest.

"3. That the House of Delegates respectfully requests that the American Medical Research Foundation take no action which would endanger the constructive activities of the national voluntary health agencies.

"4. That the Board of Trustees continue actively its studies of these perplexing problems looking forward to their ultimate solution."

Veterans' Medical Care

Pointing out that the Federal government spent $619,614,000 on hospitalized medical care of veterans in VA hospitals in 1957, of which about 75 per cent had non-service-connected disabilities, and that ways and means of obtaining economy in Federal government are allegedly being sought by Congress at this time, the House urged Congressional action to restrict hospitalization of veterans at VA hospitals to those with service-connected disabilities. It also recommended that the American Medical Association suggest to the Dean's Committees that they restrict their activities to Veterans Administration hospitals admitting only patients with service-connected disabilities.

The Medicare Program

In disapproving a resolution calling for repeal, modification or amendment of Public Law 569, the House took the position that desired changes in the Medicare program could be accomplished through modification of the present implementing directives without the necessity for new legislation. The House reaffirmed the action taken last year in New York recommending that the decision on type of contract and whether or not a fee schedule is included in future contract negotiations should be left to individual state determination. Also reaffirmed was the Association's basic contention that the Dependent Medical Care Act as enacted by Congress does not require fixed fee schedules; the establishment of such schedules would be more expensive than permitting physicians to charge their normal fees, and fixed fee schedules would ultimately disrupt the economics of medical practice.

Washington Office

The House adopted a resolution requesting the Board of Trustees to make an immediate survey and re-evaluation of "the functions and effective-

ness of the over-all AMA legislative system, including the Washington office, in the light of present-day needs of the government, public and medical profession alike for effective liaison between government and medicine on all matters affecting the public's health and adequate, prompt and accurate transmittal to the full membership of the AMA of information on all current public issues in which the physician has a direct interest." The House asked that the Board of Trustees implement, as rapidly as possible, all changes and additions that its survey discloses are desirable to achieve the basic purpose of the resolution, "effective public and government relations."

Medical Aspects of Hypnosis

A Council on Mental Health report on "Medical Use of Hypnosis" was approved by the House, which recommended that it be published in the *Journal of the American Medical Association* with bibliography attached. The report stated that general practitioners, medical specialists and dentists might find hypnosis valuable as a therapeutic adjunct within the specific field of their professional competence. It stressed, however, that all those who use hypnosis need to be aware of the complex nature of the phenomena involved. Teaching related to hypnosis should be under responsible medical or dental direction, the report emphasized, and should include the indications and limitations for its use. The report urged physicians and dentists to participate in high level research on hypnosis, and it vigorously condemned the use of hypnosis for entertainment purposes.

Over-the-Counter Medications

The House endorsed recommendations by the Public Relations Department that:

The AMA join with other interested groups in setting up an expanded voluntary program, coordinated by the National Better Business Bureau, which will seek to eliminate objectionable advertising of over-the-counter medicines.

The AMA counsel with the National Better Business Bureau in the selection of a physicians' advisory committee.

The established facilities of the AMA, such as the Chemical Laboratory, the offices of the various scientific councils, and the Bureau of Investigation, be made available, so far as is feasible, to aid in the carrying out of this program.

The Public Relations Department continue its liaison work with the various groups involved and assist in the development and operation of this program in any way possible.

The AMA become a sustaining member of the National Better Business Bureau giving evidence of its willingness and desire to support this organization in its worthwhile activities.

Miscellaneous Actions

Among a wide variety of actions on many subjects, the House also:

Adopted amendments to the *Constitution and Bylaws* which eliminate the separate offices of Secretary and Treasurer, combining them into one, and which change the titles of the General Manager and Assistant General Manager to Executive Vice President and Assistant Executive Vice President;

Recommended the appointment of a Committee on *Atomic Medicine* and Ionizing Radiation and suggested that it concern itself with informing the American public on all phases of radiation hazards related to the national health;

Approved in principle the admission of the *Virgin Islands Medical Society* as a constituent society of the American Medical Association;

Commended the *Federal Food and Drug Administration* for its untiring efforts in behalf of the public and the profession, and urged all states to review and strengthen their food and drug laws;

Approved the "Suggested Guides for the Organization and Operation of Medical Society *Committees on Aging*." submitted by the Council on Medical Service;

Commended the Committee on Medical and Related Facilities of the Council on Medical Service for its report on the *Hill-Burton* Study and approved its recommendations;

Requested that any funds provided under the Public Assistance provisions of the Social Security Act for *medical care of the indigent* be administered by a voluntary agency such as Blue Shield on a cost plus basis or by a specific agency established by the medical society of the state in which indigent care is rendered;

Directed the Board of Trustees to study problems pertaining to licensure by *reciprocity* and to consult with the Federation of State Medical Boards in an attempt to find a satisfactory solution;

Urged all members of the House of Delegates to give full consideration to the preliminary report of the Committee on Preparation for *General Practice* and to submit comments and suggestions to that committee;

Expressed the opinion that some operating room experience is valuable and necessary training for all *nurses;*

Recommended that general hospitals, wherever feasible, be encouraged to permit the hospitalization of suitable *psychiatric patients,* and

Approved a *National Interprofessional Code* for physicians and attorneys prepared by the joint liaison committee of the American Medical Association and the American Bar Association.

Opening Session

At the Monday opening session, David B. Allman, M.D., retiring AMA president, urged every physician to rededicate himself to the service of mankind and every medical society to strengthen its disciplinary system "to prevent the very few from besmirching the vast majority of us." Dr. Gundersen, then president-elect, said the Association is moving ahead in finding the best possible ways to serve both the public and the medical profession, and he declared there is no reason to believe that its influence and impact will not continue to grow in the times ahead. The Goldberger Award in clinical nutrition was presented to Virgil P. Sydenstricker, M.D., professor emeritus of medicine at the Medical College of Georgia.

Inaugural Ceremony

Dr. Gundersen, in his inaugural address, June 24, 1958, called upon the medical profession to accept its full responsibilities in promoting better world health, brotherhood and peace, adding that "the time has come when medical statesmanship must be used to augment the methods of political diplomacy." Dr. Gundersen also presented the Distinguished Service Award to Dr. Krusen and the special layman citations to Mrs. Sewell and Dr. Lal. The Shrine Chanters of Oakland, Calif., provided choral numbers during the program.

Election of Officers

In addition to Dr. Orr, the new president-elect, the following officers were selected by the House on Thursday, June 26:

W. Linwood Ball, M.D., of Richmond, Va., vice president; E. Vincent Askey, M.D., of Los Angeles, re-elected speaker, and Norman A. Welch, M.D., of Boston, vice speaker.

Warren W. Furey, M.D., of Chicago was elected for a five-year term on the Board of Trustees, succeeding E. S. Hamilton, M.D., of Kankakee, Ill. Raymond M. McKeown, M.D., of Coos Bay, Ore., was re-elected for a five-year term, and R. B. Robins, M.D., of Camden, Ark., was named to fill the unexpired term of F. J. L. Blasingame, M.D. Dr. Leonard W. Larson, M.D., of Bismarck, N. D., was elected chairman of the Board at its organizational meeting after the Thursday elections.

George A. Woodhouse, M.D., of Pleasant Hill, Ohio, was renamed to the Judicial Council. Elected to the Council on Medical Education and Hospitals were Leland S. McKittrick, M.D., of Brookline, Mass., to succeed himself, and John V. Bowers, M.D., of Madison, Wis., to succeed Victor Johnson, M.D., of Rochester, Minn.

R. B. Chrisman, Jr., M.D., of Coral Gables, Fla., and J. F. Burton, M.D., of Oklahoma City, Okla., were re-elected to the Council on Medical Service. For the same Council, Russell B. Roth, M.D., of Erie, Pa., was named to fill the unexpired term of H. B. Mulholland, M.D., of Charlottesville, Va., resigned.

Three members were elected to the Council on Constitution and By-laws: William Stovall, M.D., of Madison, Wis., to succeed Stanley H. Osborn, M.D., of Hartford, Conn.; William Hyland, M.D., of Grand Rapids, Mich., to fill the unexpired term of Floyd S. Winslow, M.D., deceased, of Rochester, N. Y., and Walter Bornemeier, M.D., of Chicago, to replace Dr. Furey.

The House approved a Board of Trustees announcement that Miami Beach will replace Chicago as a place of the 1960 Annual Meeting, and New York will be the site of the 1961 Annual Meeting. Action was postponed on selection of the city for the 1962 Annual Meeting.

Rising votes of appreciation were given to Dr. Hamilton; Dr. George F. Lull, retiring secretary, and Dr. J. J. Moore, retiring treasurer.

At the Wednesday session of the House the Illinois State Medical Society made another record state society contribution to the American Medical Education Foundation by turning over a check for $177,500 to Dr. Lull, now foundation president.

Michigan Participants

Michigan had her fair share of essayists and scientific exhibitors. The following list gives only those mentioned in the official scientific programs, not those who participated in the other societies and groups also meeting in San Francisco:

Christomo C. Santos and Robert B. Sweety, Ann Arbor, "Balanced Analgesias for the Poor Risk Thoracic Surgery Patient"; Clarence C. Livingood, Detroit, Secretary Section on Dermatology; William M. Tuttle, Detroit, Symposium on "Intrathoracic Lesions with Neurologic Manifestations, Surgical"; Conrad R. Lam, Detroit, Moderator, Symposium on "Abnormalities of the Heart and Great Vessels"; Robert F. Ziegler, Detroit, "Salient Points in the Electrocardiographic Diagnosis of Heart Disease in Infants and Children"; H. Marvin Pollard, Ann Arbor, Panel Discussion on "Pancreatis"; John W. Sigler, Detroit, Moderator, Panel on "Arthritis"; John W. Keyes, Detroit, "Therapy in Congestive Heart Failure with Chlorothiazide"; Robert F. Ziegler, Detroit, Symposium on "Pediatric Cardiology —Electrocardiologic Diagnosis in Infants and Children"; Seward E. Miller, Ann Arbor, "A Guide to Physicians in Determining Fitness to Drive a Motor Vehicle"; John R. Rodger, Bellaire, "The Role of State Medical Societies in Motor Vehicle Accident Prevention"; J. E. Webster and E. S. Gurdjian, Detroit, "The Clinical Effects of Occlusion of the Anterior Cerebral Artery"; Harold F. Falls, Ann Arbor, Discussion, "Galactosemia with Associated Cataracts in Children"; A. D. Ruedemann, Sr., Detroit, Discussion, "Application of Ultrasonic Slit Lamp in Ophthalmology"; Carl Wachtl and E. Everet Kinsey, "The Effect of Various Constituents of a Synthetic Medium on Cell Division in the Epithelium of Cultured Lenses";

Mathew Alpern and Robert S. Jampel, Ann Arbor, "The Effects of Topical Applications of Certain So-called Autonomic Drugs on Human Visual Flicker Discrimination"; Wyman C. C. Cole, Sr., Detroit Secretary Section on Pediatrics; Conrad R. Lam and Gregory Brinkerman, Detroit, "Indications and Results in the Surgical Treatment of Pectus Excavatum (Funnel Chest)"; Samuel L. Lavine, Detroit, "Treatment of the Acute Attack of Asthma in Childhood, with Special Reference to Short-term Steroid Therapy"; Jean Hoxie, Hamtramck, "Competitive Athletics for Children"; Russel J. Vastine, Jr., Niles, "Preventive and Aviation Medicine in Private Practice"; Traian Leucutia, Detroit, Secretary Section on Radiology; Ian M. Thompson and Arjan Amar, Ann Arbor, "The Clinical Importance of Ureteral Duplication in Ectopy"; W. E. Redfern, W. L. Lowrie, M. A. Block and B. E. Brush, Detroit, "Care and Treatment of Diabetic Feet."

Assisting the Committee on Scientific Exhibits were: Sydney N. Lyttle, Glenn Moore, and Franklin V. Wade, all of Flint. Those who presented exhibits were:

G. W. H. Scheppers, Ann Arbor, "Pulmonary Function"; John W. Sigler, Detroit, "Do You Have a Question, Doctor?"; Walter D. Block, Mark Allen Everett, Frederick A. J. Kingery, and Arthur C. Curtis, Ann Arbor, "Biochemical, Clinical, Genetic and Experimental Study of Several Diverse Lipo-protein Diseases"; Herbert Sloan, Joe E. Morris and Aaron Stern, Ann Arbor, "Correction of Intracardiac Defects"; Hubert C. Peltier, Harold L. Upjohn, Robert O. Stafford, and Robert H. Leviny, Upjohn Company, Kalamazoo, "Relation of Steroid Structure to Function Improvement on Natural Steroids through Alteration of Chemical Structure"; H. Marvin Pollard, Robert J. Bolt, and Arthur B. French, Ann Arbor, "Malabsorption. Syndrome"; W. L. Lowrie, H. L. Johnson, W. E. Redfern, J. B. Bryan, E. W. Whitehouse, and E. A. Kish, Henry Ford Hospital, Detroit; "Preserving the Diabetic Foot from a Triple Threat"; Robert S. Knighton, E. L. Quinn, J. M. Colville, A. B. Eisenbrey and Frank Cox, Jr., Henry Ford Hospital, Detroit, "Diagnosis and Management of Central Nervous System Infections"; Joseph L. Flemming, Christopher Glennery, Jerome Strout, and Victor Zackery, Henry Ford Hospital, Detroit, "Experimental Knee Anthroplasty; A Study of the Effects of Various Interposing Membranes"; George H. Koepke, James W. Rae, Jr., and David G. Dickinson, Ann Arbor, "The Sequence of Action of the Diaphragm and Intercostal Muscles During Respiration"; Frank Cox, Jr., E. A. Timm, J. M. Colville, E. L. Quinn, and L. William McLean, Henry Ford Hospital, Detroit, "Respiratory Viral Diseases: Adenovirus-Aserologic Study"; B. Jay Hill and Charles John Tupper, Ann Arbor, "The Role of Radiology in Periodic Health Appraisals: Faculty Examinations"; D. Emerick Szilagyi, John G. Whitcomb, Roger F. Smith and Lloyd France, Henry Ford Hospital, Detroit, "Arterial Substitutes—A Study of Hemographs, and Elastic Plastic Prostheses"; Melvin A. Block, Brock A. Brush, and Joseph L. Ponka, Henry Ford Hospital, Detroit, "Significant Surgical Lesions of the Sphinctor of Oddi."

For the report on the actions of the House of Delegates, we are indebted to F. J. L. Blasingame, M.D., Executive Vice President, American Medical Association.

HUMAN DISEASES FROM ANIMAL CARRIERS

(Continued from Page 1138)

tions are very common. All except Q-fever are the result of a bite either by fleas, mites or ticks. In the instance of Q-fever it is likely that dust-laden air or the milk of infected animals results occasionally in human infection. Rickettsial infections are amenable to treatment by the wide-spectrum antibiotics.

Summary

Acute infections common to man have lessened to a great degree since 1900 causing a marked reduction in cases and in deaths. This fact, among other reasons, has resulted in more attention being paid to diseases transmitted from animals to man. Brief synopses are given of the common zoonoses and those of special interest.

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Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

AVAILABILITY AND USE OF IMMUNE SERUM GLOBULIN

The following is a summary of information regarding the availability and use of immune serum globulin (Poliomyelitis Immune Globulin) supplied by the Michigan Department of Health.

A. *Poliomyelitis*

1. Immune serum globulin is no longer available for contacts of poliomyelitis.

B. *Measles*

1. Immune serum globulin is available for the modification or prevention of measles in children under five years of age and in older children with special medical indications. Generally, modification is to be preferred to prevention.
2. The dose for modification is 0.02 cc per pound of body weight, five to six days after exposure.
3. The dose for prevention is 0.1 cc per pound of body weight, as soon after exposure as possible.

C. *Infectious Hepatitis*

1. Immune serum globulin is available only for household contacts of cases of infectious hepatitis.
2. The prophylactic dose is 0.02 cc per pound of body weight and should be given to all household contacts as soon as possible after a case occurs in the household.
3. Immune serum globulin is not available for treatment.

D. *General*

1. It will be necessary to have the names, addresses, and weights of contacts of measles and infectious hepatitis who receive immune serum globulin.
2. Immune serum globulin is available from the Michigan Department of Health for the above proven public health protection uses. The material is available through regular drug outlets for other uses.

SERUM ALBUMIN REPLACES PLASMA

Effective July 1, 1958, normal serum albumin will be the only human blood derivative distributed by the Michigan Department of Health for use in the treatment of shock. The last bottle of liquid plasma was distributed at the end of June, 1958.

Physiologically, normal serum albumin is considered to be the most important serum protein available for use in treating shock. It is the protein most readily lost from the vascular bed following hemorrhage, trauma, or severe burns. Fifty milliliters (12.5 grams) of albumin is osmotically equivalent to 250 milliliters of citrated plasma and should produce a total increase in circulating blood volume of 225 milliliters. In dehydration or shock, additional fluids may be necessary to achieve the full increase in circulating volume.

Whereas plasma has been reported as a vehicle capable of transmitting homologous serum jaundice, this disease has not been reported in association with the use of normal serum albumin. Albumin is sterilized by filtration during final processing and is pasteurized in the final container at 60°C. for ten hours. It has been shown by many laboratories that this procedure inactivates the virus of homologous serum jaundice.

Normal serum albumin has many advantages over plasma. Among the most important of these are its safety, stability in storage, solubility in water and intravenous solutions, convenience in administration, freedom from adverse reactions and effectiveness in producing rapid recovery from shock.

The Division of Laboratories of the Michigan Department of Health manufactures normal serum albumin from outdated whole blood and blood extracted from placental tissue. The building used for the production of normal serum albumin is currently being remodeled to allow for increased production. For that reason, albumin will be available in limited amounts until the facility is completed.

MEDICAL EDUCATION IN GERMANY

(Continued from Page 1146)

who has the ability to recognize what is truly essential. Many in Germany agree with much that has been accomplished in America. However, many believe that Germany should not be as radical. The diverse American efforts of reform show that an ideal solution has not yet been found. Perhaps a compromise between the American and German systems of medical education would be the most desirable goal.

In Memoriam

FREDERICK E. BAKER, M.D., sixty, Detroit physician on the staffs of Henry Ford and Mount Carmel Hospitals, died June 4, 1958.

Doctor Baker was born in Chatham, Ontario, and was a graduate from the University of Toronto; class of 1925.

SAMUEL G. EPSTEIN, M.D., forty-nine, Detroit physician, died June 12, 1958.

Doctor Epstein held degrees from the University of Detroit and Wayne State University. He was a captain in the Air Force Medical Corps during World War II.

EARL W. FOUST, M.D., sixty, Royal Oak physician, died May 29, 1959. Doctor Foust graduated from the Wayne University College of Medicine in 1928 and was a member of Phi Chi Medical Fraternity.

Doctor Foust was called to active duty with the Army Medical Corps in 1942 and was discharged as a major in 1946.

He served on the staffs of Mt. Carmel and Ardmore Hospitals in Ferndale.

CYRUS B. GARDNER, M.D., seventy-eight, Lansing physician, died June 21, 1958. Born near Pinckney, Michigan, Doctor Gardner taught school in early life before attending the school of medicine at the University of Michigan.

Graduating in 1904, he did graduate work at the University of Edinburgh, Scotland. During World War I, Doctor Gardner served with the United States Government and was assigned initially to the Rockefeller Foundation to study new treatments for infected wounds. He took this special training to the general hospital in West Baden, Indiana, where returning veterans were being treated.

Doctor Gardner was a fellow of the American College of Surgeons, past president of the State Board of Registration in Medicine and a Life member of the Ingham County Medical Society.

CLARENCE S. GORSLINE, M.D., eighty-three, Battle Creek radiologist, died June 20, 1958. Doctor Gorsline was a graduate of the University of Michigan Medical School in 1901. He was a former secretary, past president and a Life member of the Calhoun County Medical Society and served as president of the Michigan Association of Industrial Physicians and Surgeons.

He was on the forty-year list of the membership of the Athelstan Club, a member of the Rotary, Masonic Lodge and the Shrine.

(Continued on Page 1191)



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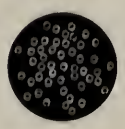
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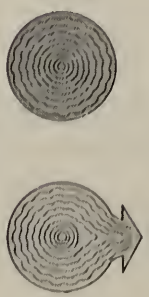
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70 YEARS OF SERVICE TO THE MEDICAL PROFESSION

(Continued from Page 1189)

CAMERON D. KEIM, M.D., sixty-one, Lansing physician since 1929, died May 26, 1958. Born in Middletown, Pa., Doctor Keim received his A.B. degree from Dickinson College at Carlisle, Pa., and his medical education at the University of Michigan.

He was on the staff of Michigan State University's Olin Memorial Health Center and was a member of the Lansing Country Club, the Elks, Nu Sigma Nu and Sigma Chi.

THEODORE KOLVOORD, M.D., sixty-nine, Battle Creek radiologist, died June 6, 1958. Born in Battle Creek, Doctor Kolvoord graduated from the University of Illinois Medical School in 1912 and did radiology work in the Army during World War I. Later he took postgraduate work in radiology and skin diseases in Vienna, Paris, London and Edinburgh.

Doctor Kolvoord and his wife became extensive travelers, circling the world twice and touring South America by airplane.

He was a charter member and senior president of the Battle Creek Lions Club, a past president of the Calhoun County Medical Society, a Mason, Shriner, member of the Athelstan Club and the Battle Creek Country Club. He was active in YMCA and Boy Scout work.

MORTIMER E. ROBERTS, M.D., eighty-nine, Grand Rapids physician, died June 9, 1958. Doctor Roberts, a native of Ottawa County, was a graduate of the Detroit College of Medicine, now Wayne State University. He served his internship and residency at St. Mary's Hospital, Detroit. Doctor Roberts was a member emeritus of the Michigan State Medical Society and former chief of staff of Blodgett Memorial Hospital.

WILLIAM E. SHACKLETON, M.D., seventy-five, Kalamazoo physician, died June 1, 1958. A graduate of Kalamazoo College and Northwestern University Medical School, class of 1909, Doctor Shackleton was a prominent member of the Kalamazoo Academy of Medicine, having served as its secretary in 1927 and its president in 1928. He also served as chief of the medical staff of Bronson Hospital in 1932-33 and Borgess Hospital in 1939-41. Doctor Shackleton received the Honorary Award of the Academy of Medicine in 1946.

A veteran of military service in World War I, he held membership in the Chicago Surgical Society, the American College of Surgeons and the Chicago Medical Society. He was a former member of the Torch and Rotary Clubs.

FRANK W. STAFFORD, M.D., sixty-five, Detroit physician, died June 23, 1958. Doctor Stafford attended Detroit University School, Culver Military Academy and received an A.B. degree from the University



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of Michigan in 1914. He graduated from Johns Hopkins University School of Medicine in 1917.

Doctor Stafford was a member of Palestine Lodge 357 F. & A.M., Palestine Chapter 159 Royal Arch Masons, Temple Shrine, and Detroit Commandery No. 1, Knights Templar.

RUSSELL H. STRANGE, M.D., fifty-nine, a physician with offices in Mount Pleasant, died June 26, 1958. Doctor Strange was born in Welchville, Illinois. He was graduated from Northwestern University Medical School, interned at Harper Hospital in Detroit and practiced in Detroit for many years before opening an eye, ear, nose and throat clinic in Mount Pleasant. Doctor Strange was a member of the American College of Surgeons and the Wabon Lodge, F. & A.M. A son, Russell H., Jr., is the State Representative from the Clare-Isabella District.

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Noted in *UAW Solidarity,* Michigan Edition, Vol. 1, No. 20, April, 1958: One of the major reasons listed for "Giving a Buck to COPE" was:

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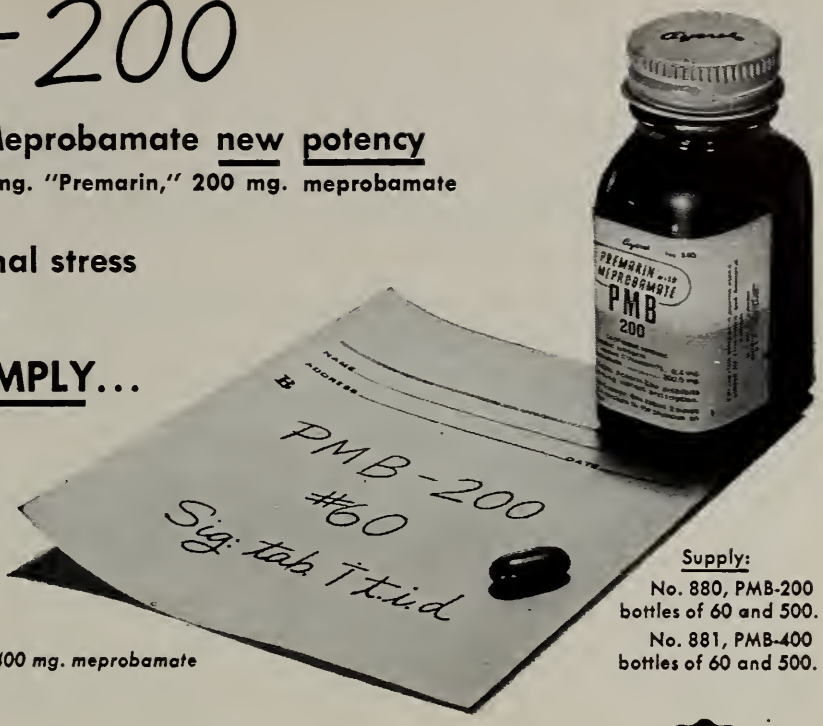
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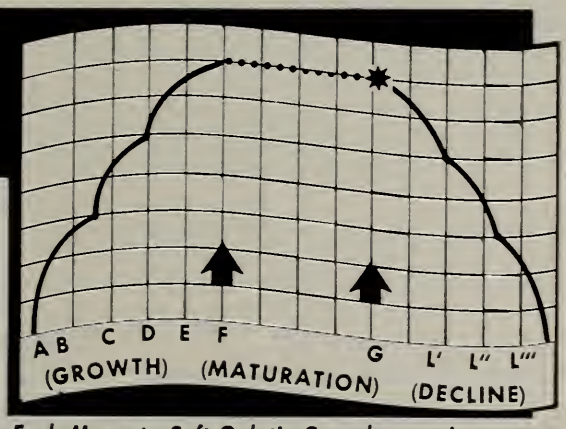
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*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

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Reed M. Nesbit, M.D., Earl L. Sauls, M.D., Marvin W. Woodruff, M.D., R. A. Straffon, M.D., Arjan D. Amar, M.D., W. H. Lakey, M.D., A. J. Coppridge, M.D., S. L. Fellman, M.D., and **James M. Pierce, M.D.,** are the authors of an article entitled "Symposium: Antibiotic and Chemotherapeutic Agents in the Treatment of Nontuberculous Urinary Infections," published in the *University of Michigan Medical Bulletin,* May 1958.

Robert Cowen, M.D., Detroit, is the author of an article entitled "Teratoma of the Epididymis: A Mature Adult Type Inclusion Tumor of the Epididymis in an 18-month-old Child," published in the *Journal of Urology,* June, 1958.

William J. Oliver, M.D., Bruce D. Graham, M.D., and **James L. Wilson, M.D.,** Ann Arbor, are the authors of an article entitled "Lack of Scientific Validity of Body Surface as Basis for Parenteral Fluid Dosage," published in the *Journal of the American Medical Association,* July 5, 1958.

Ralph W. Gerard, M.D., Ann Arbor, is the author of an article entitled "Anxiety and Tension," the thirty-third Hermann M. Biggs Memorial Lecture, presented at the stated meeting of the New York Academy of Medicine, February 6, 1958, and published in the *Bulletin of the New York Academy of Medicine,* July, 1958.

James D. Witzler, B.S., and **Albert V. Hennessy, M.D.,** Ann Arbor, are the authors of an article entitled "The Epidemiological Significance of Serologically Determined Attack Rates of Asian Influenza among Personnel of Naval Vessels," published in the *University of Michigan Medical Bulletin,* May, 1958.

Roy A. Stambaugh, B.S., Edward A. Carr, Jr., M.D., Walter H. Beierwaltes, M.D., Norma R. Spafford, A.B., and **Laurence L. Duncan, M.D.,** Ann Arbor, are the authors of an article entitled "Tyrosine Deshalogenase Activity in Thyroid Disease," published in the *University of Michigan Medical Bulletin,* May, 1958.

W. J. Oliver, M.D., B. D. Graham, M.D., and J. L. Wilson, M.D., of Ann Arbor, are authors of an original article, "Lack of Scientific Validity of Body Surface as Basis for Parenteral Fluid Dosage," which appeared in JAMA, July 5, page 1211.

P. D. Barack, Jr., M.D., J. G. Molner, M.D., C. P. Anderson, M.D., A. T. Carnes, M.D., and I. W. McLean, Jr., M.D., Detroit, are authors of an article under "Clinical Notes" which appeared in JAMA, June 28, page 1103. The title of the article is "Multiple Antigen for Immunization against Poliomyelitis, Diphtheria, Pertussis and Tetanus."

Papers Presented

Samuel J. Levin, M.D., Detroit, presented a paper at the meeting of the American Medical Association in San Francisco on June 26, 1958. The title of the paper was "The Treatment of the Acute Attack of Asthma in Childhood with Special Reference to Short-Term Steroid Therapy."

M. K. Newman, M.D., Detroit, recently presented a paper at the Canadian Association of Physical Medicine and Rehabilitation, sixth annual meeting, at the Chateau Frontenac in Quebec City. The title of his paper was "Clinical Aspects of Electromyography."

* * *

The Society for Clinical and Experimental Hypnosis, an international scientific society comprised of physicians, dentists and psychologists engaged in the clinical use of hypnosis, will present an outstanding scientific program in Chicago at the Morrison Hotel, October 29-31, 1958.

Immediately preceding the annual meeting of the Society for Clinical and Experimental Hypnosis, the Institute for Research in Hypnosis of the Long Island University Postgraduate School will present its Annual Workshop in Clinical Hypnosis, October 27-29, at the Morrison Hotel.

* * *

The International Association for the Prevention of Blindness, which was organized in 1929 to stimulate educational and community service activities for the prevention of blindness throughout the world, will meet this year in Brussels, Belgium, September 8 to 12, 1958.

The International Association holds meetings every four years. The Association is soliciting membership at $3.00 a year, including a subscription to the *International Journal of Social Ophthalmology,* which is published twice a year in French and English. Those interested may contact Dr. Conrad Berens.

* * *

The Interstate Postgraduate Medical Association will hold its 43rd International Scientific Assembly at the Hotel Statler, Cleveland, November 10-13, 1958. Tom D. Spies, M.D., is President. A very fine program is announced, and attendance is invited.

(Continued on Page 1196)



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(Continued from Page 1194)

The Lafayette Clinic, in conjunction with Wayne State University, announces a Postgraduate Program for residents in the Neurological Sciences on Friday mornings, beginning September 25 and ending February 13, and in Psychiatry on Friday afternoons, beginning September 26 and ending May 29. Residents and interested physicians are invited to attend.

* * *

Trustees of America's oldest medical essay competition, the Caleb Fiske Prize of the Rhode Island Medical Society, announce as the subject for this year's dissertation "Bronchogenic Carcinoma — Predisposing Causes." The dissertation must be typewritten, double spaced, and should not exceed 10,000 words. A cash prize of $300 is offered. Essays must be submitted by December 31, 1958.

For complete information regarding the regulations, write to the Secretary, Caleb Fiske Fund, Rhode Island Medical Society, 106 Francis Street, Providence 3, Rhode Island.

* * *

Dr. Charles N. Ballentine, a 1948 graduate of the University of Michigan Medical School, has been appointed a special fellow in physiology in the Mayo Foundation, Rochester, Minnesota, which is a part of the Graduate School of the University of Minnesota.

* * *

The Michigan Regional Committee on Trauma will hold a meeting December 3 at the new Wayne County Medical Society Building, 1010 Antietam, Detroit.

* * *

The National Library of Medicine has compiled a lengthy bibliography on staphylococcal infection, which, it is hoped, may be of value to both private and public health physicians who are engaged in combatting the increased incidence of antibiotic resistant staphylococcal infection in the home, community and hospital. The bibliography will be sent at no cost on request to National Library of Medicine 7th St. and Independence Ave. S.W., Washington 25, D. C.

* * *

Applications for certification by the American Board of Obstetrics and Gynecology, new and reopened, Part I, and requests for re-examination Part II, are now being accepted. Deadline date for receipt of all such applications is September 1, 1958. No applications can be accepted after that time.

Members of the American Board of Obstetrics and Gynecology wish to announce that at the recent final examinations for certification, the total of 280 certifications out of a group of 383 candidates examined.

It is expected that the new *Bulletin of the American Board of Obstetrics and Gynecology* will be available some time during the month of July. A copy of this booklet may be obtained by writing to the office of the Secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

The Annual Conference of the Michigan Association for Retarded Children was held June 26, 27 and 28 at Baldwin Hall, Albion College. The theme was "The

Say you saw it in the Journal of the Michigan State Medical Society

Retarded Child as an Individual and the World in Which He Lives," and the keynote speech was given by Ralph Rabinovitch, M.D., Director, Hawthorn Center, Northville. Papers presented at the General Session were:

"Recent Medical and Sociological Contributions to Mental Retardation"
Charles Toy, M.D., Chairman, Mental Health Commission, Muskegon
"Congenital Hypothyroidism, A Preventable Cause of Mental Retardation"
William H. Beierwaltes, M.D., University of Michigan
"Learning To Live in the Community"
Christopher E. Sower, Ph.D., Department of Sociology and Anthropology, Michigan State University.

* * *

The following Michigan physicians were certified in the specialty of Obstetrics and Gynecology in examinations held by the American Board of Obstetrics and Gynecology, May 16, 1958:

Edward A. Dougherty, 18241 West McNichols Road, Detroit 19
Robert W. Dustin, 640 N. Woodward, Birmingham
James W. Gell, 940 Riker Bldg., Pontiac
Earl J. Horkins, 14300 W. McNichols, Detroit 19
Manuel Jacobs, 23700 Van Dyke, Van Dyke
Herman Kanter, 13127 W. Seven Mile Road, Detroit 21
Jesse Ketchum, 4219 Manor Road, Royal Oak
George E. LaCroix, 611 Westwood Dr., Birmingham
Rajko R. Margulis, 460 Fisher Bldg., Detroit 2
George W. Morley, Women's Hospital, Ann Arbor
Ernest L. Overbeek, 512 Med. Arts Bldg., Grand Rapids
Frederick G. Porter, 27459 W. Seven Mile Road, Livonia
Addison E. Prince, 8942 Dexter Blvd., Detroit 6
Glenn F. Tomsu, 310 E. Water St., Port Huron
John D. Trisler, 3001 West Grand Blvd., Detroit 2
Arthur A. Ulmer, 14616 E. Seven Mile, Detroit 24

* * *



James H. Maxwell, M.D., Ann Arbor, was appointed chairman of the Department of Otolaryngology on July 1 to succeed A. C. Furstenberg, M.D., Dean of the Medical School, who had asked to be relieved of the administrative detail of the department chairmanship so that he may concentrate more fully on the duties of the deanship.

Dr. Maxwell is a native of Paw Paw and received his M.D. degree from the University of Michigan in 1927.

Congratulations, Dr. Maxwell!

* * *

The fourth edition of the Michigan Health Council Directory of Michigan Health Organization, just published is ready for distribution. This revision—the first since 1955 contains detailed information regarding more than 115 Michigan health organizations.



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1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

This Directory is considered an indispensable tool for field people engaged in health work, libraries, high schools, colleges, and universities, health departments, doctor's office, health and safety organizations, social agencies, science writers, community health councils, city, county, township as well as state departments.

Special arrangements have been made with the printing company for special rates by having a greater number of directories printed than with previous editions. J. K. Altland, M.D., President of the Michigan Health Council, stated that this savings is being passed along to the purchasers and urged that they order several copies where possible. Prices for the new Directory are: Single copies—$2.00; 3 copies—$5.00; 7 copies—$10.00; 16 copies—$20.00. Mailing costs are included in the prices quoted.

Orders are now being taken by The Michigan Health Council, 706 North Washington, Lansing 6, Michigan.

* * *



Ralph H. Pino, M.D., of Detroit, was one of four Ferris Institute alumni who received honorary degrees at the College's 74th annual Commencement exercises June 15 in Big Rapids. Dr. Pino, a graduate of the College Preparatory Department of Ferris in the class of 1911, received the degree of Doctor of Science conferred by Dr. Victor E. Spathelf Ferris' president.

The Citation read in part as follows:

"Distinguished medical doctor, scholar, author, discerning analyst, and at heart teacher and humanitarian of high order, this College salutes an eminently successful son who gave new dimensions to the sparks of inspiration which Ferris Institute has always sought to imbed in its teachings."

* * *

The American Association of Medical Assistants will hold its second annual convention at the Palmer House, Chicago, Illinois, October 31, November 1 and 2, 1958.

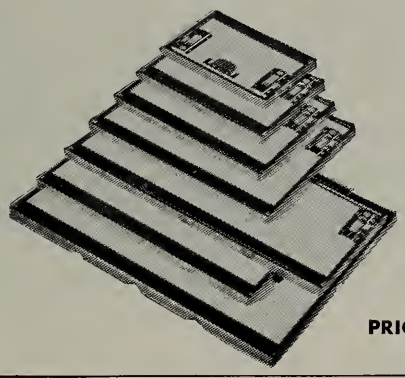
The Association membership is made up of men and women employed as assistants in the offices of Doctors of Medicine. The Association was conceived in Kansas City, Kansas, during the fall of 1955 when interested persons from fifteen states met to make plans for a formal organization. The second meeting was held the following year in Milwaukee, Wisconsin, at which time a Constitution and Bylaws were adopted and the Association formally set up. During this first official year, a great deal of work was done and the first annual convention was held in San Francisco, California, in October, 1957. Now, with a membership of nearly 6,000 representing seventeen states, and with the approval of State Medical Societies and the American Medical Association, this Association is well under way.

The purposes of the Association are stated as follows: To inspire its members to render honest,

(Continued on Page 1200)

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(Continued from Page 1198)

loyal and more efficient service to the profession and to the public which they serve. To strive at all times to cooperate with the medical profession in improving public relations. To render educational services for the self-improvement of its members and to stimulate a feeling of fellowship and cooperation among the Societies. To encourage and assist all unorganized medical assistants in forming local and state societies. This Association is declared to be non-profit. It is not nor shall it ever become a trade union or collective bargaining agency.

Several states now offer fine educational courses with the cooperation of their colleges and universities which will help the assistant to become more valuable in the doctor's office. Physicians realize that the well-trained assistant is an asset to their profession and that these courses will relieve them of much of the time-consuming work of on-the-job training. The American Association plans to offer courses on a national level as soon as a suitable curriculum has been set up.

The American Association of Medical Assistants is now offering its members a comprehensive insurance program. This is a salary replacement (sickness and accident) plan with optional major hospital, nurse expense and surgical benefits.

It is to the advantage of the medical profession to have their medical assistants affiliated with this organization. The American Association of Medical Assistants would welcome the opportunity to give information concerning the organization and to assist with the formation of County and State Societies. Inquiries may be addressed to Miss Hallie Cummins, R.R.L., Chairman of the Public Relations Committee, Medical Record Library, Caro State Hospital for Epileptics, Caro, Michigan.

* * *

Most cases of tuberculosis are diagnosed only after the disease reaches an advanced stage. Last year, 42 per cent of Michigan's 2,174 new cases of active tuberculosis were first reported in the moderately advanced stage, and 36 per cent were far advanced. Only 22 per cent of the new cases were minimal. When tuberculosis is allowed to progress to an advanced stage before it is diagnosed, infection probably has been spread to other persons. Early diagnosis is an important step in breaking the chain of tuberculosis infection.

* * *

Sydney S. Levine and Homer M. Smathers, M.D., Detroit, are President and Secretary, respectively of the Detroit Academy for the Surgery of Trauma.

* * *

Wayne State University College of Medicine and Detroit Receiving Hospital are offering a postgraduate course in electroencephalography on Fridays, during September, as follows:

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September 5—Demonstration of use of EEG machine.

September 12, 19 and 26—Interpretation of records with the group.

Meetings are held in the Neurology Conference Room (Room 733), Farwell Building.

* * *

Remus G. Robinson, M.D., Detroit, recently was elected President of the Detroit Board of Education. In 1955, Dr. Robinson was elected to the Board for a six year term. He is chief surgeon at Parkside Hospital, Detroit.

Congratulations, Dr. Robinson!

* * *

Sidney E. Chapin, M.D., Dearborn, and **D. Bruce Wiley, M.D.**, Utica, were the MSMS representatives at the Interns' and Residents' Orientation Week, University of Michigan, July 2.

Doctor Wiley discussed the "Value of the County Medical, the State Medical Societies and the American Medical Association to the Young Doctor;" Doctor Chapin spoke of "The Relationship of Doctors of Medicine to Hospitals in Referring Patients."

* * *

M.D. Locations—Through June 30, 1958
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Dwight M. Schroeder, M.D.—Northport
H. John Kitto, M.D.—Flint

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Appointment of two department chairmen in The University of Michigan Medical School was approved by the Regents, June 13.

Russell T. Woodburne (Ph.D.) has been named chairman of the Department of Anatomy, effective July 1, to succeed Bradley M. Patten (Ph.D.), who is beginning his retirement furlough.

Dr. James H. Maxwell was appointed chairman of the Department of Otolaryngology, effective July 1, to succeed Dr. A. C. Furstenberg, dean of the Medical School, who had asked to be relieved of the administrative detail of the department chairmanship so that he may concentrate more fully on the duties of the deanship.

The appointees are long-time members of the Medical School, both joining the faculty right after their graduation from the University of Michigan.

Dr. Woodburne was born in London, Ontario, Canada, on Nov. 2, 1904 and became a naturalized citizen of the U. S. in 1922. He holds three degrees from the U-M, a Bachelor of Arts in 1932, a Master of Arts in 1933 and a Doctor of Philosophy in 1935.

He was an instructor in the Department of Anatomy from 1935 to 1939, an assistant professor from 1939 to 1944, an associate professor from 1944 to 1947 and a professor since 1947.

Dr. Maxwell was born in Paw Paw, Michigan, on December 15, 1901 and is a 1924 graduate of the U-M College of Literature, Science and the Arts. He received the M.D. degree from the U-M Medical School in 1927.

Dr. Maxwell was a resident in the University of Michigan Department of Otolaryngology from 1928 to 1930 and then was an instructor from 1930 to 1933. Promotion to assistant professor came in 1933, to associate professor in 1940 and to professor in 1945.

* * *

E. C. Texter, M.D., Detroit, is the official MSMS representative to the World Medical Association Convention in Copenhagen, Denmark, August 15-20.

* * *

American Medical Education Foundation.—A recent report of "Restrictions on Use of Monies Contributed to AMEF" presents the following figures for the two medical schools in Michigan.

University of Michigan Medical School	*Amount of Contributions*	*Number of Contributors*
Unrestricted	$12,192.97	751
For Specific Department	8,387.50	171
For Building Fund	50.00	3
For Research	5,005.00	110
For Scholarship and Student Aid	3,052.50	90
For Library	125.00	1
For Endowment	25.00	1
Others	83.00	8
		1135

Wayne State University College of Medicine	*Amount of Contributions*	*Number of Contributors*
Unrestricted	$ 3,393.00	206
For Specific Department	25.00	1
For Building Fund	20.00	1
For Research	25.00	1
For Scholarship and Student Aid	100.00	2
For Library	1,180.00	33
		244

(Continued on Page 1204)

Laboratory Examinations

Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis

Serology—Kahn and Wassermann

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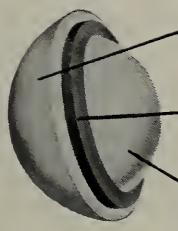
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(Continued from Page 1202)

The Michigan Allergy Society officers for the current year are Bernard Dickstein, M.D., Flint, President; Milton J. Steinhardt, M.D., Detroit, Vice President; Robert G. Lovell, M.D., Ann Arbor, Secretary-Treasurer. The Executive Committee is composed of these officials plus Sidney Friedlaender, M.D., Detroit; Homer Howes, M.D.. Detroit and E. Oskar Schreiber, M.D., Flint.

* * *

Susanne M. Sanderson, M.D., Detroit, and **Myra E. Babcock, M.D.,** Pleasant Ridge, were congratulated in a feature article "Salute Lady Doctors" in the *Detroit News* Sunday edition of May 25.

Congratulations, Doctors Babcock and Sanderson!

MEDICAL TELEVISION SHOWS

Produced by Michigan Health Council over WJBK-TV.

June 1—Multiple Sclerosis
Abraham Brickner, Bernard Passer both of Detroit; Mrs. Barbara Herman, Oak Park and Kathryn J. McMorrow, M.D., of Detroit.

June 8—A Career in Medicine
Ralph H. Pino, M.D., of Detroit; Thomas S. McInerney, M.D., of Royal Oak; and Thomas Elliott and Gary Noble both of Ann Arbor.

June 15—Water Safety (Film—"Learning How To Swim")

June 22—Hospital Careers
Jacques Cousin, Mrs. Ruth H. Blanchard, Miss Barbara Jewett, and Miss Geneva Wiser, all of Detroit.

June 29—Highway Safety (Film—"Smith System")
Sergeant Michael Sibal and Mr. Howard Cox both of Detroit.



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Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

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THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

CANCER AND THE ATOMIC AGE. By Clement A. Tavares, M.D. New York, Washington, Chicago, Hollywood, Toronto: Vantage Press, 1958. Price, $3.50.

In this small monograph of somewhat less than 200 pages, the author presents and develops his concept of the cause and control of cancer, which he calls the "energy concept," theorizing that all cancer is due to an increase in energy leading to malignant change within the cell. His theorizing is the result of personal research and clinical observation. He calls for a cessation of nuclear testing.

The reviewer would not recommend the book.

R.W.B.

MODERN DRUG ENCYCLOPEDIA AND THERAPEUTIC INDEX. Edited by Edwin P. Jordan, M.D., F.A.C.P., University of Virginia Medical School, Charlottesville, Virginia; Lecturer in Social and Environmental Medicine; Executive Director American Association of Medical Clinics. Seventh edition. New York: Drug Publications, 1958.

The first editions gave all the drugs produced by around 300 manufacturers, but this edition has been very definitely cut down to around 140 producing companies, due largely to the increased cost of the research necessary for the producing drugs.

The first section of the book is alphabetical and covers all the useful and available preparations on the market. There has been a change in the designation of the narcotics to comply with the new federal laws. The book is very comprehensive, fully three inches thick, and is a "must" for pharmaceutical colleges.

The last section of the book following a crowded page index insert is a a very much enlarged generic-name index. This book would be most valuable in a physician's office because it gives him a ready reference with detailed information upon any drug which he may wish. Incidentally, it is required by law in every pharmacy in the State of Michigan.

HUMAN INFERTILITY. By C. Lee Buxton, M.D., Med. Sc. D., Professor and Chairman, Department of Obstetrics and Gynecology, Yale University School of Medicine, New Haven and Anna L. Southam, M.D., Assistant Professor of Obstetrics and Gynecology, College of Physicians and Surgeons, Columbia University, and Director of Sloane Hospital Infertility Clinic, New York, with a chapter on Endometrial Diagnosis by Earl T. Engle, Ph.D., Professor of Anatomy, College of Physicians and Surgeons, Columbia University, New York. New York: Paul B. Hoeber (Harper & Bros.), 1958. Price $7.50.

Infertility is still a subject which is controversial. This book is interesting in that it not only treats the subject from the gynecologic standpoint but also from the standpoint of the male and that of the couple. This book brings out the fact that people may have children a lot sooner as a result of medical investigation and treatment. It presents factors influencing fertility potential such as age, length of marriage, and pelvic pathology. It not only brings all the past literature up to date but presents the newer concepts of endocrinology, psychology and sociology. The problem of statistical analysis in this field is brought up to point out the variables which influence this subject. This book would be interesting to all individuals in the field of medicine, particularly to the gynecologist and urologist.

J.R.P.

UNDERSTANDING YOUR PATIENT. Edited by Samuel Liebman, M.D., Medical Director, North Shore Hospital, Winnetka, Illinois; Clinical Assistant Professor of Psychiatry, University of Illinois College of Medicine. Philadelphia-Montreal: J. B. Lippincott Company, 1957. Price $5.00.

This well-printed and extremely readable book is the third in a series based on the annual lecture series of the North Shore Hospital in Winnetka, Illinois. The statement is made that about 80 per cent, in general, of the patients appearing for medical consultations have shown significant signs of psychological factors. Nine of the ten contributors are professors or consultants in psychiatry and the tenth is a professor of family study in the department of psychiatry and director of the Marriage Counsel of Philadelphia. The book is extremely well written and very encouraging. We recommend it for the younger practitioner as interesting reading and to the older practitioner as recalling to him many conditions in which he has been interested.

ELECTROCARDIOGRAPHIC ANALYSIS. Volume 1. Biophysical Principles of Electrocardiography. By Robert H. Bayley, M.D., Professor of Internal Medicine, Director of Heart Station, University of Oklahoma School of Medicine and University Hospitals, Oklahoma City. New York: Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, 1958. Price, $8.00.

This book is an approach to the science of electrocardiography, utilizing a method championed by Michigan's own most foremost cardiologist, the late Dr. Frank N. Wilson. It is a well illustrated and well indexed but rather highly technical volume which develops the electrocardiographic wave form from the biophysical approach.

The first of a projected two-volume series dealing with electrocardiography, it attempts to provide the basic principles for the understanding of the electrocardiographic wave form and its clinical variations as opposed to pattern memorization—a rather dangerous and unscientific approach to the understanding and interpretation of the electrocardiogram.

The text is recommended to those who possess better than the average background of mathematics and electrophysics. It is too technical for the average clinician.

R.W.B.

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BUSY, MATURE, Michigan General Practitioner desires associate or partner so he may curtail work. Midwest on big lake. Excellent opportunity for generalist or perhaps specialty. Accredited hospital, excellent schools, churches. Will enlarge well-equipped office. In very pretty, small city. Good fishing, hunting and boating. Write: Box 7, 606 Townsend Street, Lansing, Michigan.

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GENERAL PRACTITIONER—Aged 30, married, military service completed, desires a free partnership or association in Michigan. Will consider solo practice. Write: Box 11, 606 Townsend Street, Lansing, Michigan.

WANTED: Locum Tenens—two weeks—Michigan license with general practice experience. Anytime after mid August. Write: Box 12, 606 Townsend Street, Lansing, Michigan.

WANTED: Physician to take over well-established general practice in city of 200,000 population in Northeast Michigan. Ideally located in growing suburban area. Modern, fully equipped office on ground floor. Will rent or sell on terms. Write: Box 13, 606 Townsend Street, Lansing 15, Michigan.

PHYSICIANS for mental hospital located in Michigan's magnificent Upper Peninsula. Hospital has service for both mentally ill and mentally retarded patients. Salary range from $9,980 to $15,159 depending upon qualifications. Some housing available. All Michigan Civil Service benefits. Contact T. W. Thompson, M.D., Medical Supt., Newberry State Hospital, Newberry, Michigan.

WANTED: M.D. for new modern Medical Center built for both dentist and doctor in Caledonia. Located near three Grand Rapids hospitals with 1,000 school pupils. Contact Ernest Ruehs, Caledonia, Michigan.

ASSOCIATION WANTED: General practitioner, 36, married, family, military service completed, four years' experience in solo practice, desires relocation and association with individual or small group. Write: Box 13, 606 Townsend Street, Lansing, Michigan.

MEDICAL BUILDING—two and one-half story brick building in South Haven. This building has been used as a hospital and office for two general practitioners. Has been remodeled into three large apartments on second and third floors and offices on the main floor. Owner will sell with very small down payment, total selling price only $28,000.00. Write or phone owner Ed Hedlund, South Haven, Michigan. Telephone 278.

FOR SALE: 160-acre wooded estate on all-weather road, with 35-acre private, well-stocked lake in the heart of deer-hunting area. New, completely modern, three-bedroom home features imported stone fireplace, studio ceiling, pine paneling throughout, tile floors and view from large picture windows overlooking landscaped yard and lake. Home is complete with custom-built furniture, underground sprinkler system in lawn, and many additional desirable qualities. Caretaker. A buy at $55,000 and on terms. Henderson Realty, 316 N. Cedar Street, Kalkaska, Michigan.

WANTED—YOUNG PHYSICIAN for association in a large general practice located in the city of Flint. Minimum guarantee with excellent opportunity for full partnership as soon as mutually agreeable. I would appreciate a personal interview as soon as possible. Contact: Eli N. Bernstein, M.D., 409 Kresge Building, Flint 3, Michigan.

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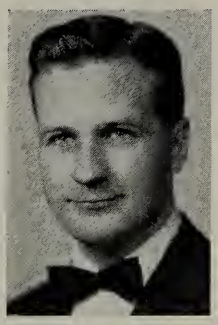
THE JOURNAL
of the Michigan State Medical Society

VOLUME 57 SEPTEMBER, 1958 NUMBER 9

Contributors to This Issue



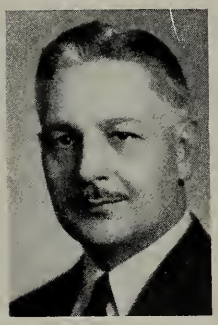
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WALTER RUNDLES M.D.



W. M. TUTTLE, M.D.

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Homes of the Wayne County Medical Society
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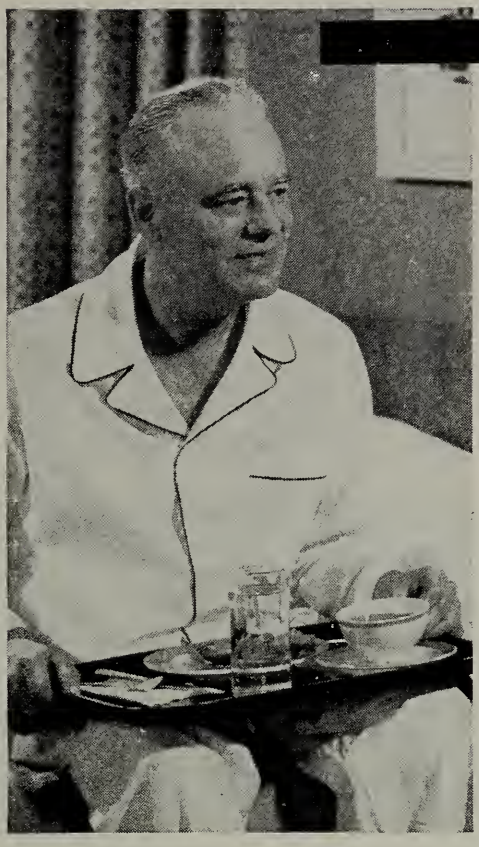
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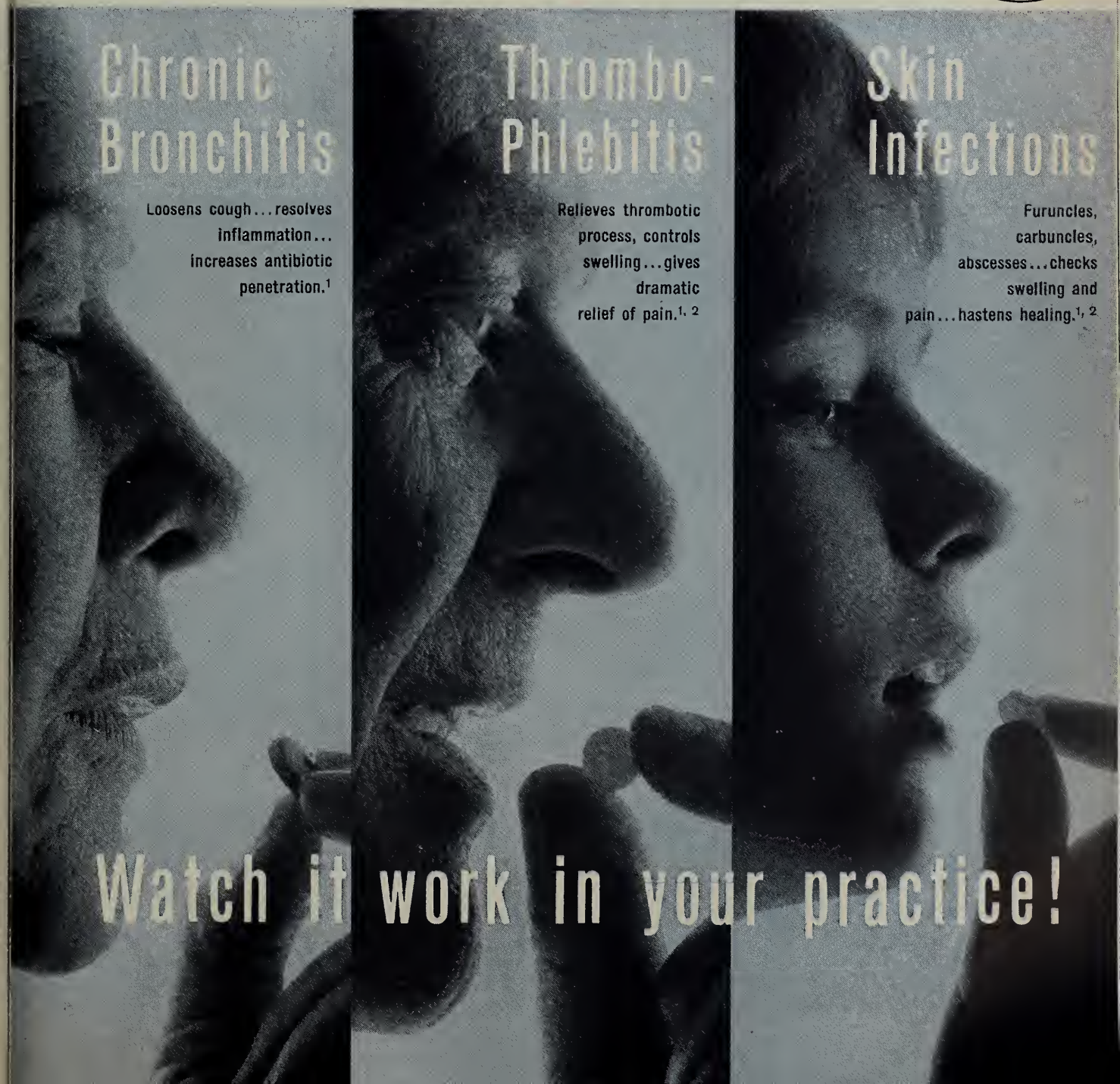
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SALK AT 1959 MICHIGAN CLINICAL INSTITUTE

Jonas Salk, M.D., discoverer of the internationally-used salk vaccine for poliomyelitis. will be one of the guest speakers at the 1959 Michigan Clinical Institute, to be held at the Sheraton-Cadillac Hotel, Detroit, March 10-13, 1959, under the sponsorship of the Michigan State Medical Society, University of Michigan Medical School, Wayne State University College of Medicine, et al.

Dr. Salk and Thomas Francis, Jr., of Ann Arbor are to give a panel discussion on "A Five-Year Experience with the Salk Vaccine in the Prophylaxis of Poliomyelitis." The Salk-Francis presentation will be the Michigan Foundation Lecture, sponsored by the Michigan Foundation for Medical Health and Education, Inc., of which E. I. Carr, M.D., of Lansing is President.

SIXTH ANNUAL NATIONAL MEDICAL CIVIL DEFENSE CONFERENCE

The National Medical Civil Defense Conference, held in San Francisco, June 21, 1958, was addressed by a distinguished list of speakers. The highlight of the conference was the address of Governor Leo A. Hoegh, Director of FCDA, who since the meeting has been appointed Director of the Office of Defense and Civilian Mobilization. This new office combines the previous Federal Civil Defense Administration and the Office of Defense Mobilization. The office carries greater authority and indicates that, on a Federal level, a more serious view is being taken in regard to the Civil Defense problem. The action of our legislators may have been prompted, in part, by the knowledge that all citizens of the USSR are being required to take twenty-two hours of CD training this year with a wider and more detailed program to follow.

Governor Hoegh stated that a National Civil Defense plan has been developed, and he gave some details concerning the problem of radioactive fallout, radiation monitoring and the "Shelter Program." The part of major interest to the medical profession was his proposal "that the responsibility for health and medical care of the surviving population be delegated to the Public Health Service," who would also be responsible "for writing the medical portion of the National Defense Plan." The preceding proposal has the approval of the AMA and Governor Hoegh gave assurance that all medical aspects of CD would be developed only with the approval of the AMA.

The Surgeons General of the various branches of the Armed Forces outlined the role of the military in CD, which, in essence, is that they will work with Civil Defense organizations and will care for civilian casualties to the extent that the carrying out of their primary military missions permits.

Michigan was represented on the program by Dr. M. L. Lichter who spoke on "The Testing and Rehearsal of Hospital Disaster Plans." Other speakers presented detailed information, which, upon receipt of the complete minutes of the conference, will prove valuable in the further development of our CD Medical Program in Michigan.

CARL J. SPRUNK, M.D.

In Washington, D. C., labor unions now have fifty-three buildings valued at millions of dollars. Some also own banks, apartment buildings and even a steamship line (not necessarily in Washington, D. C.!). There are seventy-one registered lobbyists in the National Capitol active every day, seeking to push the union point of view on all types of legislation—not merely labor-management or socialized medicine matters.

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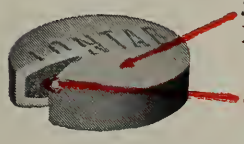
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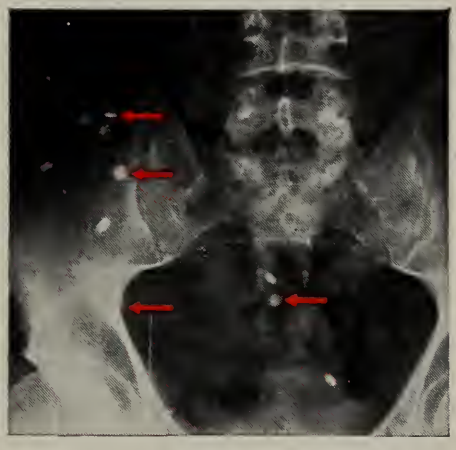
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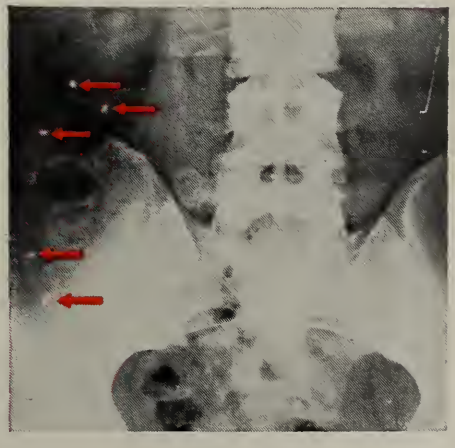
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Report of Seal of Assurance Participation

September 2, 1958

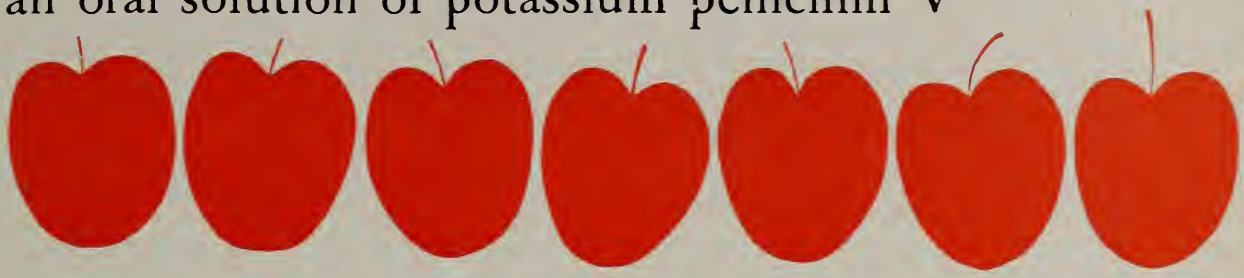
This report is based on MSMS membership as finalized for the 1958 Directory Number of JMSMS. Percentages shown include number of Active Members, number of Life and Emeritus Members in Michigan, and percentages of participation based on percentage of Active Members and percentage of Active, Life and Emeritus Members.

County Medical Society	Active Members	Life and Emeritus Members	Total Active, Life and Emeritus Members	Participants	Per Cent of Participation Based on Active Members Only	Per Cent of Participation Based on Active Plus Life and Emeritus Members
Allegan	21	1	22	23	100	100
Alpena-Alcona-Presque Isle	26	1	27	28	100	100
Barry	13	1	14	15	100	100
Bay-Arenac-Iosco	88	3	91	67	76	74
Berrien	91	1	92	71	78	77
Branch	25	3	28	25	100	89
Calhoun	103	10	113	111	100	99
Cass	8	2	10	11	100	100
Chippewa-Mackinac	22	1	23	27	100	100
Clinton	14	1	15	15	100	100
Delta-Schoolcraft	21	2	23	20	95	87
Dickinson-Iron	21	1	22	21	100	95
Eaton	19	0	19	19	100	100
Genesee	241	14	255	31	13	12
Gogebic	14	0	14	15	100	100
Grand Traverse-Leelanau-Benzie	57	2	59	22	39	37
Gratiot-Isabella-Clare	46	2	48	41	89	85
Hillsdale	14	3	17	7	50	41
Houghton-Baraga-Keweenaw	22	3	25	22	100	88
Huron	14	0	14	15	100	100
Ingham	211	4	215	160	76	74
Ionia-Montcalm	36	8	44	39	100	89
Jackson	108	10	118	84	78	71
Kalamazoo	165	8	173	132	80	76
Kent	356	20	376	297	83	79
Lapeer	20	3	23	16	80	70
Lenawee	46	4	50	50	100	100
Livingston	21	0	21	20	95	95
Luce	9	1	10	9	100	90
Macomb	87	1	88	74	85	84
Manistee	11	1	12	11	100	92
Marquette-Alger	42	4	46	43	100	93
Mason	15	1	16	14	93	88
Mecosta-Osceola-Lake	16	2	18	18	100	100
Menominee	15	0	15	16	100	100
Midland	41	0	41	33	80	80
Monroe	39	1	40	39	100	98
Muskegon	95	6	101	76	80	75
Newaygo	16	0	16	13	81	81
North Central	25	1	26	30	100	100
Northern Michigan	36	4	40	24	67	60
Oakland	335	14	349	191	57	55
Oceana	7	1	8	8	100	100
Ontonagon	5	1	6	5	100	83
Ottawa	55	0	55	52	95	95
Saginaw	131	6	137	114	87	83
St. Clair	60	2	62	61	100	98
St. Joseph	26	2	28	28	100	100
Sanilac	14	0	14	14	100	100
Shiawassee	26	0	26	21	81	81
Tuscola	16	1	17	16	100	94
Van Buren	25	1	26	27	100	100
*Washtenaw	261	15	276	220	84	80
Wayne	2322	110	2432	1249	54	51
Wexford-Missaukee	14	1	15	14	100	93
Total	5587	284	5871	3832	68.6	65.3

*Washtenaw County has an unusual situation due to the location therein of the University of Michigan. Forty-nine interns and residents of that institution are participating in the Seal of Assurance Plan but have been deleted from the final figures noted above to give a more accurate picture of the Washtenaw County participation based on the physicians practicing in that county.



an oral solution of potassium penicillin V



plus the higher blood levels of potassium penicillin V



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COMPOCILLIN-VK is indicated for all infections susceptible to oral penicillin therapy. Also, in treating recurring rheumatic fever and in managing rheumatic carditis. COMPOCILLIN-VK may be used in counteracting complications from severe viral attacks.

The initial recommended dose: In acute infections, the range is from 125 mg. (200,000 units) three times daily to 250 mg. (400,000 units) every four hours. For young children, the adult dose may be reduced in proportion to age and weight. For prophylactic use, 125 mg. (200,000 units) may be administered once or twice daily.

COMPOCILLIN-VK Granules for Oral Solution come in 40-cc. and 80-cc. bottles. Each 5-cc. teaspoon of the reconstituted solution represents 125 mg. (200,000 units) of potassium penicillin V. The dry granules stay stable under ordinary room temperatures. When reconstituted, the solution will remain potent for two weeks under refrigeration.

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AMA Washington Letter

THE MONTH IN WASHINGTON

The civilian Medicare program is struggling through an uncomfortable period of readjustment while attempting to cut its costs by about 30 per cent.

Had the program continued the way it was operating last year, the cost this year would be an estimated $100 million. Instead, the Defense Department, on the urging of Congress, is attempting to keep the costs within the appropriated $70.2 million.

No one can estimate as yet actually what is being saved. Some services that previously were authorized in civilian hospitals and from civilian doctors have been eliminated, thus shifting these costs from the government to the service families. At the same time many dependents who had been cared for outside the military now are required to go to the service hospitals.

If they don't like what is happening, there is not much the Medicare administrators, the doctors and the hospitals can do about it, at least not until the new Congress meets next January. Then, if the situation is out of hand and there is widespread discontent among the service families, the problem could be returned to the lap of Congress.

Awkward as are the restrictions in some areas, the situation could have been much worse. The House originally proposed only $60 million for the civilian program, and ordered the Defense Department not to exceed that figure. In the Senate, Senator Knowland (R., Calif.) sponsored an amendment increasing the total to $70.2 million, and lifting the ceiling on spending. The Knowland proposal was approved.

The conference committee accepted the Senate changes, but in its report on the bill instructed the department to stay within the $70.2 million. This the department is attempting to do, but if the figure has to be exceeded for good reasons, the department would have to shift funds or ask for a supplemental appropriation and explain the need.

If the ceiling had been kept in the bill itself, the department couldn't have spent a penny more than the $60 million.

Here are the major restrictions, as outlined by the department to a meeting of Medicare contractor representatives:

Dependents living with their sponsors to use military facilities, unless the military authorities certify that civilian care is necessary because service facilities are not available. Dependents not living with sponsors to have freedom of choice of military or civilian medicine, as now.

In maternity cases, if the patients are living apart from sponsors, they will continue to have freedom of choice. If living with sponsors new patients or those in the first trimester must use service facilities if available. Those in the second and third trimester, if under civilian care October 1, may continue, but if for any reason they change doctors, military facilities must be used if available.

The new regulations also discontinue all services "not clearly specified in the law" for all dependents. The eliminated services include medical care ordinarily rendered on an outpatient basis, acute emotional disorders, and elective surgery. Emergency care may be obtained from civilian sources without prior authorization.

Where more than one service facility is located in the area, a military clearing house will screen dependents and hospitals to insure that all service hospitals are used "to the optimum."

Notes

Congress has received a variety of advice on what to do about the hospitalization of veterans now and in the year ahead. Everybody seems to agree that twenty to thirty years from now will see a sharp increase in the number of non-service-connected disabilities among the veteran population. The question then is how many of these cases should be taken care of by the federal government.

During hearings by the House Veterans Affairs Committee, Dr. Russell B. Roth, chairman of the American Medical Association Committee on Federal Medical Services, reiterated the AMA stand that service-connected cases should receive best care possible in VA facilities and that non-service-connected illness should be the responsibility of state and local governments, if the veteran is unable to pay for his care.

Before adjourning, the House Committee introduced a bill that did little to clear up the issue of non-service-connected care. It was aimed rather at the Budget Bureau in an effort to assure that some 5,000 beds now closed because of "administrative decisions" would be placed in use —presumably for non-service-connected cases.

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PR REPORT

AMA TO SURVEY LEGAL PROFESSION

A survey of attorneys on various subjects of mutual interest to physicians and lawyers will be conducted early this fall by the AMA's Law Department. Approximately 10,000 lawyers will be asked to answer questions on interprofessional relations, medical professional liability and expert medical testimony. The need for such a study is evidenced by the fact that as high as 80 per cent of all cases tried today require medical testimony and that seven out of 10 personal injury cases are decided on medical rather than legal considerations. The medical profession should be aware of the problems of attorneys and the role of medicine in the judicial system. It is hoped that this information can be used to promote good working relations between physicians and attorneys.

AMA RADIO HEALTH SERIES POPULAR

With the co-operation of county medical societies, the MSMS has successfully contacted Michigan radio stations with the result that several of the excellent series of radio programs produced by the American Medical Association have been given generous usage.

As indicated below, these radio stations of Michigan have been co-operative to a degree far beyond what could be reasonably expected. As a result The Council at its July meeting instructed that a special expression of thanks be tendered them. This report deals only with the broadcast of the AMA series: Other radio stations are also carrying other medical programs on a regular basis.

ANNUAL REPORT ON DISTRIBUTION OF AMA RADIO HEALTH PROGRAMS IN MICHIGAN

July 1, 1957—June 30, 1958

	Series
WELL, Battle Creek Calhoun C. M. S.	Summer Serenade Medicine Fights Killers Tea for Three Superstition or Science Yours for Health Drugs You Use Mind Alone Menu for Health Well at Work Picture of Health Harmony and Health
WHTC Radio, Holland Ottawa C. M. S.	Heart of America The Living Proof Mind Alone Picture of Health Train Up a Child Summer Serenade
WHAK Radio, Rogers City Alpena C. M. S.	Guardians of Your Health Everyday Health Problems
WKAR Radio, East Lansing Ingham C. M. S.	Yours for Health . Menu for Health Medicine Fights the Killers Picture of Health Train Up a Child Safe at Home
WJLB, Detroit Wayne C. M. S.	The Living Proof Physical Medicine Picture of Health Dr. Tim, Detective Summer Serenade
WCBY, Cheboygan Northern Michigan M. S.	Menu for Health Dr. Tim, Detective Sixteen Well at Work
WMAB, Munising Marquette-Alger C. M. S.	Summer Serenade Harmony and Health Everyday Health Problems Dr. Tim, Detective Sixteen
WION Radio, Ionia Ionia-Montcalm C. M. S.	Yours for Health Drugs You Use The Living Proof Menu for Health Everyday Health Problems
WABJ, Adrian Lenawee C. M. S.	Heart of America Gold Medal Doctors The Doctor Answers Mind Alone
WMIC Radio, Monroe Monroe C. M. S.	Facts
WHLS Radio, Port Huron St. Clair C. M. S.	Guardians of Your Health Facts The Doctor Answers Gold Medal Doctors Train Up a Child
WKNX Radio, Saginaw Saginaw C. M. S.	Safe at Home Tea for Three Harmony and Health Menu for Health
WSTR Radio, Sturgis St. Joseph C. M. S.	Harmony and Health Medicine Fights the Killers
WJBK Radio, Detroit Wayne C. M. S.	Guardians of Your Health
WMTE Radio, Manistee Manistee C. M. S.	Thirty-Five Harmony and Health The Doctor Answers Best Is Yet to Be Dr. Tim, Detective Sixteen Safe at Home Well at Work Hi Forum
WSJM Radio, St. Joseph Berrien C. M. S.	Yours for Health Drugs You Use Superstition or Science Guardians for Your Health Hi Forum Dr. Tim, Detective

FIVE PROFESSIONS MAP "MAP"

A forward step toward the realization of a Michigan Association of the Professions was taken when key officials of five learned professions met in Lansing recently to discuss organization plans for such an association.

Representatives of the Michigan Society of Architects, the Michigan State Dental Association, the Michigan Society of Professional Engineers and the State Bar of Michigan met on July 21 with the following representatives of the Michigan State Medical Society: President George W. Slagle, M.D., President-elect Gilbert B. Saltonstall, M.D., and Councilor William M. Le Fevre, M.D.

This is the first time, to anyone's knowledge, that officials of all these professions joined in an attempt to solve common problems and promote mutual aims.

The Michigan State Medical Society has been one of the leaders in planning a Michigan Association of the Professions. Dr. Slagle urged that everything possible be done to permanently establish such an organization in Michigan.

"The power of the professions, as organizations, to serve the public good is not being used effectively because it is not being exerted in unison," Dr. Slagle said. "It is ironic that at a time in our history when the nation is crying for brain-power, the most learned group of all, the professions, are being by-passed when decisions affecting their future are being made."

Commenting on the concept of a Michigan Association of the Professions, Dr. Saltonstall said that the need for an association of the professions has long been the goal of the forward-looking leaders of the various professions in our state. It is the consensus of these men, he said, that the terrific potential of the combined strength of the professions has been too long overlooked and ignored by those both inside and outside the professions.

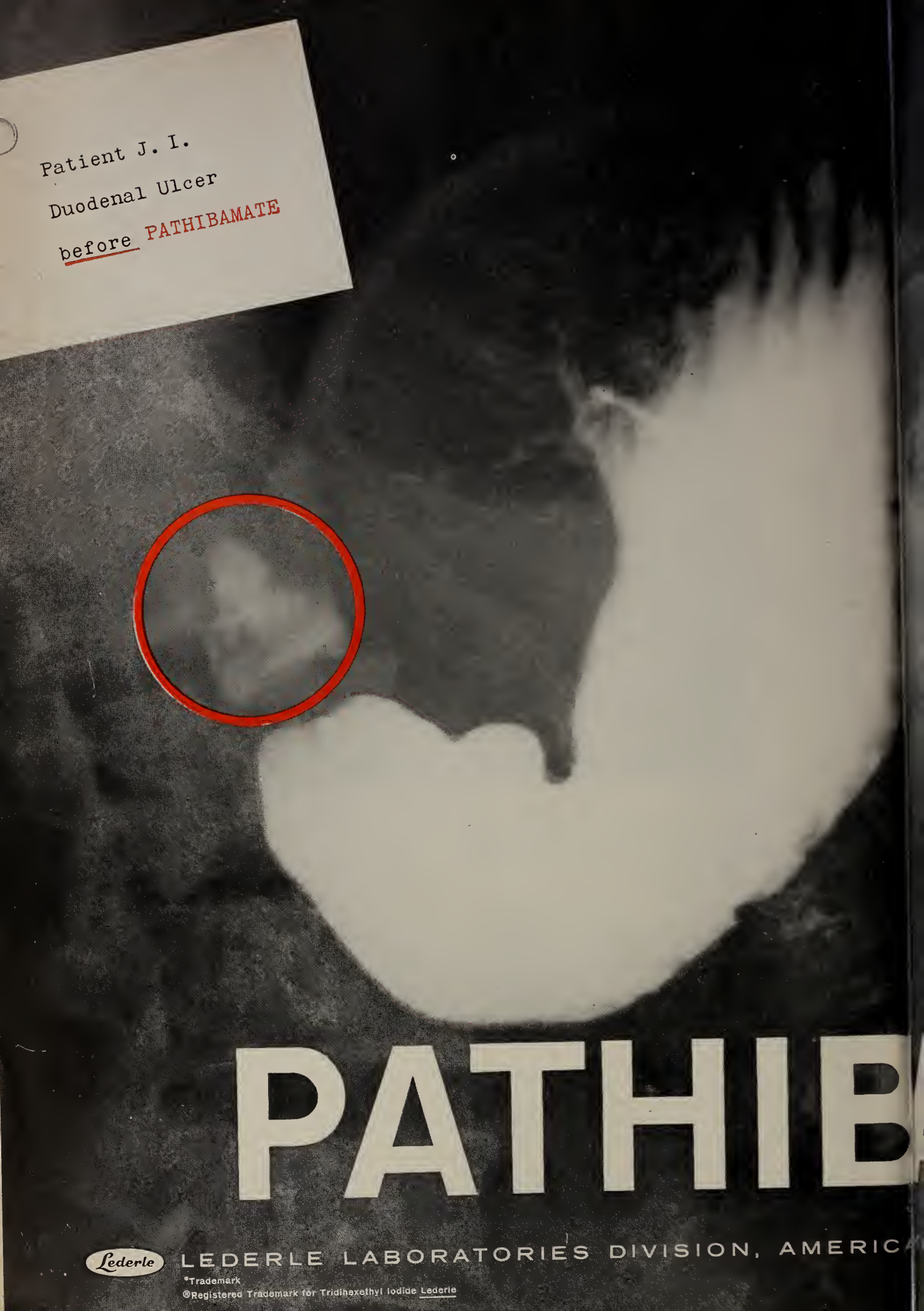


Officials of the MSMS, who met with leaders of other professions to discuss organization plans for a Michigan Association of the Professions at a dinner meeting at Kellogg Center, Michigan State University, July 21, 1958, were: *(left to right)* Gilbert B. Saltonstall, M.D., Charlevoix, President-elect; George W. Slagle, M.D., Battle Creek, President; William M. Le Fevre, M.D., Muskegon, Councilor.

"Almost everyone has seen and recognized the power and influence of organized groups," Dr. Saltonstall said. "Industry and labor are represented at the bargaining tables of the nation by single, powerful voices, backed by separate organizations which represent segments of interest. Legislators consult—and listen to—the wishes and demands of these highly organized groups. Their opinions are sought on almost all matters of legislation.

"By contrast, the professions are rarely considered, much less consulted, except in those instances when the matter directly affects technical subjects within the purview of one particular profession. In the majority of these instances, while far reaching decisions are being made that affect the future of all professions, these

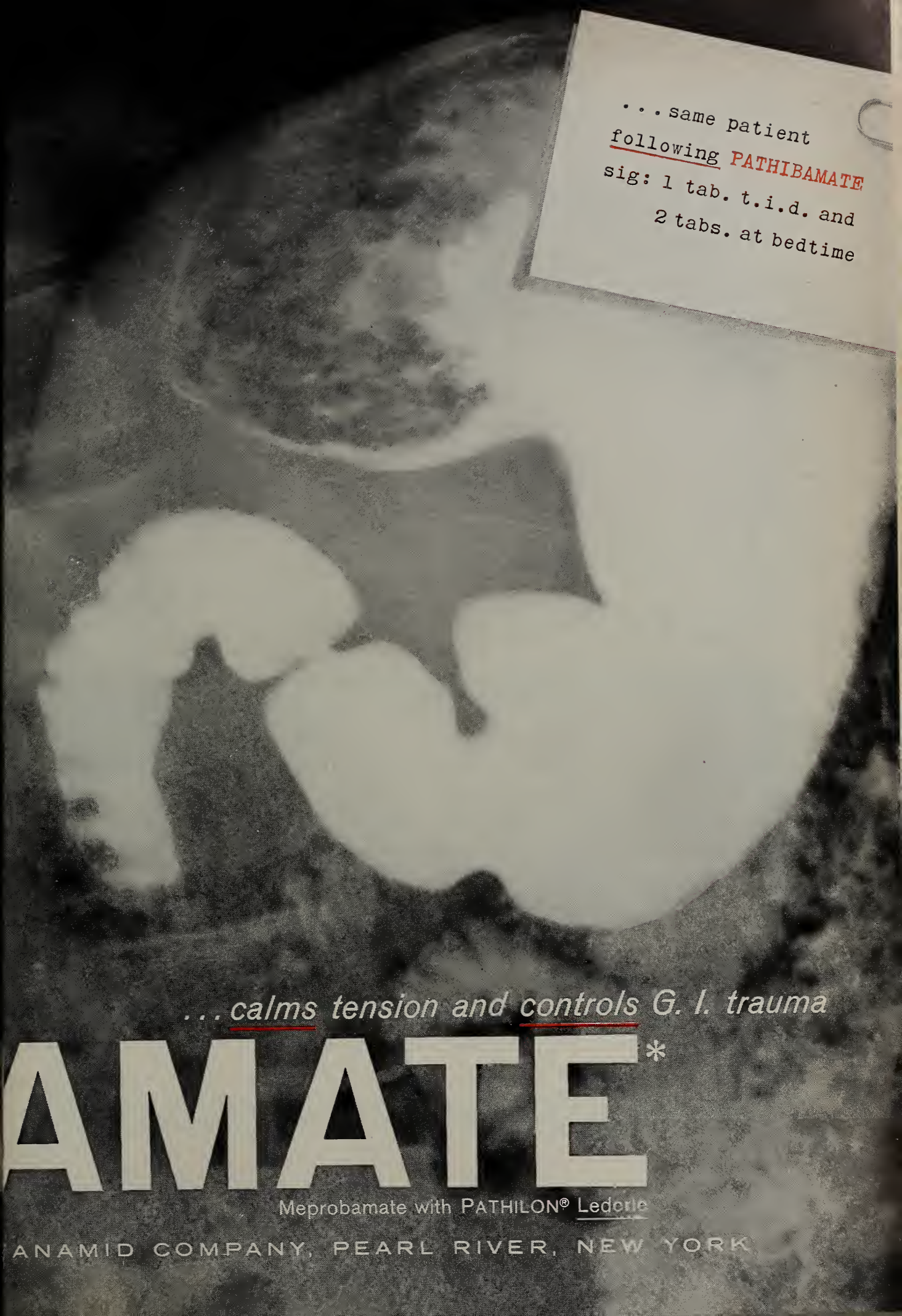
(Continued on Page 1236)



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FIVE PROFESSIONS MAP "MAP"

(Continued from Page 1233)

professions often do not even know the matter is being considered, much less decided."

General comments from the leaders of the professions present at the meeting indicated that there is a growing feeling that an association of the professions of Michigan could create an active working body that would devote its efforts to the economic, political, social and public relations problems common to all professions. It would include in its membership all professional persons legally registered, certified or licensed, or otherwise qualified as members of the architectural, dental, engineering, legal and medical professions and any other professions that may be subsequently admitted.

Contemplated projects and plans that the organization would seek to accomplish will directly benefit all members of all professions in the broad fields of legislation, public relations, education and business techniques.

A statement of purposes for the association, presented at the dinner meeting by Lester P. Dodd, Past President of the State Bar of Michigan and Legal Counsel for the MSMS, listed the following as objectives:

. . . the encouragement of participation of all the professions in programs having for their purpose the advancement of professional ideals and professional welfare;
. . . the promotion of better understanding between and among the several professions;
. . . the promotion of a free interchange of opinion and information among its members on subjects of mutual professional interest;
. . . the promotion of closer contact between the leaders of the learned professions;
. . . the fostering of ever higher standards of professional ethics and conduct;
. . . the promotion of programs and measures designed to protect the public and the professions against encroachments on professional practice by those not qualified;
. . . the promotion of programs designed to offer professional and preprofessional students more adequate preparation for professional life;
. . . the promotion of programs and measures designed to assist young professionals in meeting the problems of their respective professions;
. . . the stimulation and fostering of leadership by the professions in public service activities on community, state and national levels. . . .

All representatives of the professions at the meeting accepted, in principle, this concept of an association of the professions. It was the unanimous wish of those present that delegates from the five professions meet in the near future to iron out organization details of the Association and to draw up tentative articles of incorporation so that they in turn could subsequently report back these decisions to their parent Societies for certification or change in accordance with the desires of the separate professional societies.

To this end, plans were made for an all-day meeting, September 14, of delegates and alternates from the five professional societies. Dr. Saltonstall and Dr. Le Fevre are the MSMS representatives.

Four other professions were represented at the dinner meeting in July. Representing the Michigan Society of Architects were: Frederick E. Wigen, President; James B. Morison, Immediate Past President, and Elmer J. Manson, Past President. Representing the Michigan Dental Association were: Jack P. Beukema, D.D.S., President; Floyd D. Ostrander, D.D.S., Immediate Past President, and John G. Nolen, D.D.S., Chairman, Legislative Committee. The Engineers Society was represented by: John S. Reed, President; Frederick Von Voigtlander, Immediate Past President, and N. O. Saulter, Director-at-Large. Members of the State Bar were: Raymond H. Dresser. First Vice President; James R. Rood, Commissioner, and Maxwell F. Badgley, Commissioner.

PUBLIC TELECASTS TO PRECEDE ANNUAL SESSION

Two special half-hour medical television programs will be produced by the Michigan State Medical Society as a prelude to the 93rd Annual Session beginning September 30 in Detroit. The shows will emanate from the studios of WJBK-TV, Channel 2, Detroit. They were developed with the co-operation of the executive personnel and staff of that station as a public service.

During program planning, the MSMS worked with Sidney E. Chapin, M.D., Dearborn, Chairman of the Wayne County Medical Society's Public Relations Committee. Script-writer for the two shows was Jack Kantner of the Michigan Health Council.

The medical documentaries will publicly set the stage for the scientific meetings which will follow during the four days of the MSMS Annual Session at the Sheraton-Cadillac.

Other publicity preparations for the Annual Session include the Press Dinner customarily held on the Wednesday before the convention. Invited to the dinner are representatives of all communications media in the Detroit area.

As usual, the Scientific Press Relations Committee will be available in the Sheraton-Cadillac Press Room to aid in the interpretation of the scientific news and arrange interviews with guest essayists. H. F. Dibble, M.D., Detroit, is Chairman of the 1958 Committee—members are A. B. Gwinn, M.D., Hastings; J. J. Lightbody, M.D., Detroit; C. Allen Payne, M.D., Grand Rapids; A. E. Schiller, M.D., Detroit; and C. L. Weston, M.D., Owosso.

A special House of Delegates Press Committee will serve news media representatives in a similar capacity during the session of the House of Delegates immediately preceding the scientific session. Members of this Committee are: J. J. Lightbody, M.D., Detroit, Chairman; L. Fernald Foster, M.D., Detroit; K. H. Johnson, M.D., Lansing; M. L. Lichter, M.D., Melvindale; and C. Allen Payne, M.D., Grand Rapids.

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AMA News Notes

NUTRITION MEETING

More than 500 physicians, nurses and dietitians will gather October 16 in Madison, Wisconsin, for the fifth annual symposium sponsored by the AMA's Council on Foods and Nutrition. "Factors Involved in Formation and Disease of Bone" will be the subject under discussion at the one-day meeting to be held at the University of Wisconsin.

A highlight of the program will be a presentation by Willard Libby, Ph.D., of the Atomic Energy Commission, on atomic fall-out and radioactive stronium utilization in the human bone. Other features include: a discussion of "Vitamin D—History and Mode of Action"; a paper on "Clinical Indications for the Use of Vitamin D Preparations" and a presentation on "Factors Influencing Tooth Formation and Structure."

In addition, two panel discussions will be held in the afternoon—(1) "Bone Formation and Repair" and (2) "Lathyrism and Bone Disease."

CONFERENCE ON AGING

To co-ordinate medicine's activities in the field of aging, the American Medical Association has called a special planning conference September 13-14 at the Drake Hotel, Chicago. State medical societies and state departments of public health have been invited to send representatives by the AMA Committee on Aging. The program will include: presentations of the major challenges to the medical profession in the area of aging; opportunity for each participant to discuss these challenges as they relate to the activities of the medical societies they represent; round table discussions on the activities of other national organizations in the field, and scientific papers. Further information may be secured from the Council on Medical Service.

RADIO SERIES PLUGS HEALTH CARE FOR DOLLS

Health tips for youngsters from "Dr. Dolliwell" is the theme of a new series of six transcribed five-minute spot announcements prepared by the American Medical Association. These radio platters feature a little girl who brings her doll to the family doctor for advice on various health topics, including safety, vaccinations, good nutrition and cleanliness. Medical societies wishing to book the series on local radio stations may contact the AMA's Bureau of Health Education.

LEGAL PROFESSION SURVEY

A survey of attorneys on various subjects of mutual interest to physicians and lawyers will be conducted early this fall by the AMA's Law Department. Approximately 10,000 lawyers will be asked to answer questions on interprofessional relations, medical professional liability and expert medical testimony. The need for such a study is evidenced by the fact that as high as 80 per cent of all cases tried today require medical testimony and that seven out of 10 personal injury cases are decided on medical rather than legal considerations. The medical profession should be aware of the problems of attorneys and the role of medicine in the judicial system. It is hoped that this information can be used to promote good working relations between physicians and attorneys.

NOMENCLATURE INSTITUTE IN PHILADELPHIA

The third in the 1958 series of regional Nomenclature Institutes will be conducted by the American Medical Association November 3-5 at the Benjamin Franklin Hotel in Philadelphia. This short course on the use of the *Standard Nomenclature of Diseases and Operations* is offered as a special service to medical record librarians and others working with the Nomenclature in the hospital, doctor's office or clinic.

GROUP PRACTICE ROSTER PLANNED

The AMA's Council on Medical Service has been in the process of compiling information on group practices throughout the country and eventually plans to publish a directory of these groups. To date the Council has information on 989 such groups located in the United States, Hawaii and Canada. Verification sheets have been sent out to those groups already on file. Physicians who practice in groups of two or more—who have not received a check sheet—are invited to send the following information to the Council: group practice name, address, office building (indicate whether rented or owned), number of physicians, and the specialties represented.

ADVICE ABOUT BLUE SHIELD

"If the Blue Shield Plans of today are not all they might be, physicians should not be surprised. The elusive character of perfection is only too well known to the physician and this is as true of the economic side of medicine as it is of the scientific. Physicians and patients must realize that health insurance plans do not spring de novo, full grown and potent like Minerva from the brow of Jove."—J. W. Fons, M.D., President, Medical Society of Wisconsin.

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is obtained by desensitizing your patient for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction for each. Specific desensitization against irritants such as foods, epidermals, dust, fungi, bacteria and pollens immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For your patients that have already been skin tested by any means, simply send their list of offenders to the Allergy Division. Prompt 7-10 day service on all Rx's.

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Editorial Opinion

ACCIDENTS AND THE FAMILY PHYSICIAN

"A significant per cent of our accidents are caused by drivers who are not physically and psychologically qualified, or whose faculties are impaired by the action of drugs. . . . These facts immediately call for a definition of the doctor's responsibility to society, in the detection and elimination of these killers on the road. . . . Driving should be legally defined as a qualified privilege, and not as an accepted personal right. Carefully planned laws should be established to define physical and psychological qualifications, and to establish methods of detection and discrimination. . . . It may also be necessary to require that each applicant for a driver's license furnish a certificate from his family physician as to the existence of any of the specified illnesses which might impair his driving. To make this reporting by physicians effective, the false reporting by physicians should be a breach of the law."—*Arizona Medicine,* June, 1958.

THE AMA AND SOCIAL MEDICINE

Since the war, socialized medicine so-called has become one of the foremost controversies in the United States.

The American Medical Association is meeting in San Francisco, and as usual it will discuss various pending proposals for socialized medicine. As usual it will oppose them. As usual many Americans, supported by politicians, will take the doctors to task for this attitude.

Socialized medicine is not primarily a scientific cause, but a political cause. It is a political cause because politicians see votes in it. Politicians see votes in it because most of us are poor, and find it difficult to meet our medical bills. Politicians say socialized medicine will halve these bills or better.

Politicians are as versed in human nature as are doctors, and when you are versed in human nature you attain to power over human beings. Adolf Hitler was a good example of this, but in a wholly different domain, so was Abraham Lincoln.

It is true that socialized medicine will reduce medical costs for certain segments of the American population, but it does not do this by increasing medical efficiency. It does it by shifting the costs to the general taxpayer.

There is no evidence whatever that socialized medicine will increase medical efficiency, and there is contrary evidence in Great Britain. The factor involved in the cause is not medicine as an art and a science, but almost exclusively the money of those needing medical treatment—or fancying they do.

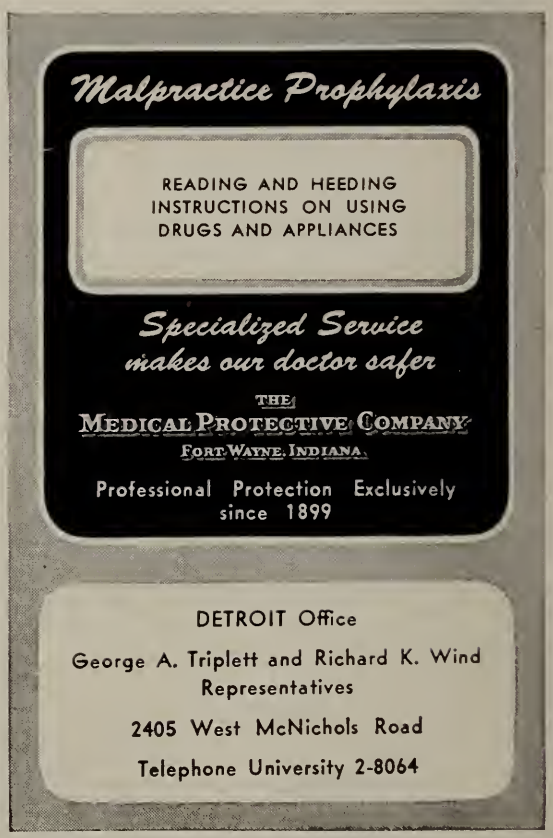
Medicine as an art and a science is as competitive as any human institution known. First, those who serve it range from the sloppy to the dazzling, from doltish money grubbers to the creative and self-sacrificing. Second, those needing medical treatment approach it emotionally, and excepting the marital state, nothing is more delicate and personal than the relation between doctor and patient.

This relation cannot be adequately met by a political or social device, any more than the marital relation can be adequately regulated by divorce laws.

The present high and rising cost of medical treatment is in part the high cost of modern technological procedures, and in part the inflationary price structure of our time. The story of a few years ago that doctors were getting the lion's share of medical costs was sheer nonsense, refuted by the most casual examination of any total bill for illness involving hospitalization and latter-day methods of treatment.

The doctors were the target because the politicians saw in them the most vulnerable target, due to the undeniable reality that a good doctor makes a good income. So do good lawyers, but most of us go through life without even needing one. Hence envy of a lawyer's lot cannot be transformed into a political cause.

In the Soviet Union, the cost of medical treatment is low. When and if we retrogress to the Soviet standard of living and to the Soviet concept of a collective society without competition, our medical costs will be low, too.—Royce Brier, in the *San Francisco Chronicle,* June 26, 1958.



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Homes of the Wayne County Medical Society

By William J. Stapleton, Jr., M.D.
Detroit, Michigan

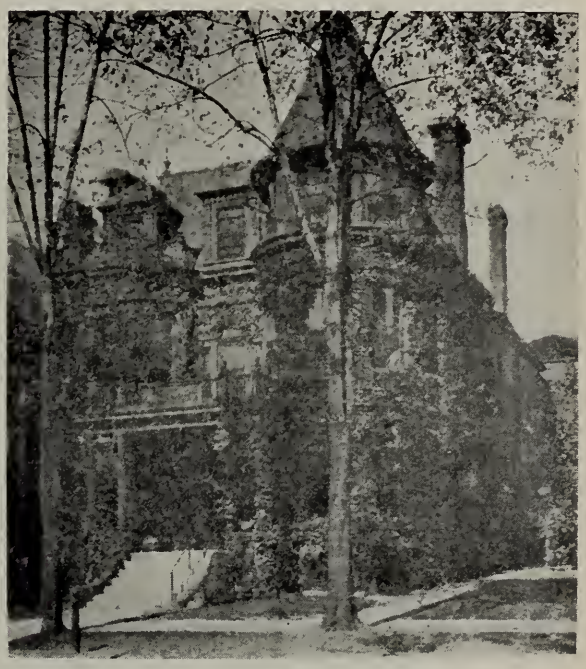
"So Fleet the Works of Men Back to the Earth Again
Ancient and Holy Things Fade Like a Dream"
—Kingsley

NOW that the Wayne County Medical Society has moved into its magnificent new home on the Medical School Campus, some remarks about its former homes may be of interest. This writer has been a member of the Wayne County Medical Society during his entire fifty-eight years of medical practice.

In the year 1904-1905, he was elected Secretary-Treasurer of the Society and served two years. The first year, Guy L. Kiefer was President and Willis S. Anderson, Vice President. In 1905-1906, A. E. Conner was President and Charles D. Aaron, Vice President. The Secretary-Treasurer was bonded by the Society for the sum of $500—his job was to get a speaker for the meetings, send out the postal card notices and collect the dues. Things are quite different today. In those days, the Society had less than 500 members, or no one man could have handled the job of both Secretary and Treasurer. The Society has certainly made strides during the last fifty-eight years.

Our present Society's history goes back to the year 1876, exactly parallelling the life span of this writer.

In the early days, the Wayne County Medical Society had no home. It met in the old Wayne County Building, the Elks' Temple, the Fellowcraft Club of Michigan Avenue, the Griswold House, and occassionally in some of the doctors' homes. It wasn't until the year 1910, under the presidency of Arthur Holmes, that sufficient interest was manifested by the members to encourage the election of a Board of Trustees and to authorize the purchase of a society building. They secured the property



First home of the Wayne County Medical Society.

at 65 East High Street (now Vernor Highway) (Fig. 1). This was to be paid for by subscription among the members. The Society, in order to own its own property, was incorporated by a Board of Trustees, and on September 1, 1910, the first meeting was held in its first home. In 1913, the Society had increased in membership to more than 600. It became evident that larger quarters



Maccabees Building

first meeting in the enlarged quarters was held February 2, 1914. This addition also had a library with regular library stacks and a paid librarian. The vicissitudes of the library, the disposition of its books, and the administration of its affairs form a story in themselves.

The Society stayed in the High Street Home until January, 1927, when the property was sold, and moved to new quarters on the 11th floor of the Maccabees Building (Fig. 2). We who were members in those days enjoyed the informal atmosphere of both these early quarters, especially the marvelous cooking of Mrs. Nelson and her fried chicken cooked in Southern style.

But the quarters in the Maccabees Building soon proved to be inadequate for the size of the growing Society, and increasing financial difficulties, born essentially of the depression, which affected everybody alike, caused the Trustees to start thinking about another abode.

Frank Kelly, Henry Luce and Milton Robb were appointed a committee to seek new quarters.



The Whitney House at Woodward and Canfield.

were needed, so the Trustees were authorized to build an auditorium at the rear of the house not to cost more than $30,000. This was done, and the Somebody mentioned that the Whitney Home on Woodward Avenue was vacant. It seemed a natural thing to think of this vacant mansion in



David Whitney House on the campus of the Wayne State University Medical College.

terms of possible occupancy by the Wayne County Medical Society. The David Whitney Building, Detroit's first magnificent all-professional office building, brought the David Whitney family close to the medical profession during the years that building had been in existence. And then, too, there was Neil Hoskins.

Neil Hoskins was the personal physician for the Whitney family. He was a fine doctor who accompanied the Whitney family on transoceanic trips via their own yacht to Europe and elsewhere. He was also a great story teller, a circus fan who spent his summer vacations with the Ringling Brothers Circus. (A profile of this man who really got us the Whitney House would be highly interesting.)

Dr. Hoskins took the matter up with the Whitney family and on January 2, 1932, the Society moved into the home at Woodward and Canfield (Fig. 3). Ten years later, the building and grounds were given to the Wayne County Medical Society. A stipulation of the gift by the Whitney estate was that the headquarters, wherever located, was to be known as the David Whitney House. Thus it is that our new quarters are so named. The Society settled in the David Whitney House in the year 1932, where it was adequately housed with ample facilities for offices, meeting rooms and dining rooms, but with no auditorium.

Some suggested that it might be possible to hold meetings in one of the nearby churches but this idea didn't appeal to the members. So we met at the Ford Hospital, in the small auditorium of the Art Museum and lastly in the auditorium of the Medical Department of Wayne State University.

Now the days of our wanderings are over. The New David Whitney House on the campus of Wayne State University Medical College is the last word in a facility designed to take care of all the activities of the Society (Fig. 4). I cannot end this piece without saying "Many Thanks" to the devoted group who worked so hard to make the plans of our new home a reality. Of course, it was the contributions of the members which made it possible. We must not forget either that the sale of the Old David Whitney House provided a firm basis for creation of the building fund. All honor to the David Whitney Estate for their great gift.

Now let's enjoy our new home.

1553 Woodward Avenue
Detroit 26, Michigan

Wayne State University College of Medicine

By Francis P. Rhoades, M.D.
Detroit, Michigan

THE HISTORY of Wayne State University College of Medicine began more than ninety years ago. Since that time, its influence has continued to grow. In contrast to other medical schools, an unusually large proportion of its graduates have been the residents of Detroit and other points in Michigan. In most cases, they have stayed in Michigan to become respected and valuable additions to their communities.

In 1868, just after the end of the Civil War, a small group of Detroit physicians founded the Detroit Medical College (Fig. 1). The first regular medical course was given in 1869, and thirty-eight students received degrees at the first commencement. The College moved to more spacious quarters in 1883 (Fig. 2).

A competitor, the Michigan College of Medicine, founded in 1869, joined with the Detroit Medical College in 1885, and the combined schools became known as the Detroit College of Medicine. They occupied the old home of the Michigan College of Medicine (Fig. 3).

The Detroit College of Medicine was subsequently affiliated with Harper, St. Mary's, and St. Luke's Hospitals and an ambulance service was started together with the services of an eye-and-ear infirmary.

Four years later, in 1889, the new college built its own building (Fig. 4) which was to serve as its home for sixty-five years. The college was privately owned and it supplied a large percentage of doctors for the growing needs of Michigan. In 1913, it was reorganized under a new charter as the Detroit College of Medicine and Surgery, controlled by a Board of Trustees. On July 1, 1918, it became the only municipally-owned school of medicine in the United States functioning under a Board of Education.

An act of the State Legislature in 1923 enabled the Board of Education to extend the collegiate work under its direction, and in 1924 the Detroit College of Medicine and Surgery became a part of the Colleges of the City of Detroit. The Colleges were renamed Wayne University in January, 1934, and in 1956, the name was changed to Wayne State University.

The last eight years of the College of Medicine's existence have witnessed more growth and development than its previous eighty-two years. Both its physical plant and teaching and research faculty, as well as its clinical facilities, have expanded enormously.

In 1950, Detroit Receiving, the medical school's main teaching hospital, added an eight-floor outpatient and research wing, the Farwell Annex.

The new Wayne State University Medical Science Building (Fig. 5) was dedicated in 1954.

The Kresge Eye Institute was established, and in 1955 the Lafayette Clinic, a neuropesychiatric facility, began operations. That same year saw the beginning of the first Department of Industrial Medicine as an integral part of a medical school with Dr. Arthur Vorwald as Chairman. The departments of Neurosurgery and Neurology were established in 1957 under the chairmanship of Doctors E. S. Gurdjian and John S. Meyer, respectively. A Department of Physical Medicine, under Dr. Joseph N. Schaeffer, was created in May, 1958. Dr. Schaeffer is also Director of the Rehabilitation Institute of Metropolitan Detroit (formerly housed at Herman Kiefer, it now has a new home at 261 Brady Street, next to Harper Hospital).

The Children's Hospital of Michigan became affiliated with the College of Medicine in 1957, formalizing a working arrangement that has existed for years. This 217-bed teaching hospital gives the College one of the largest pediatric departments in the country. Dr. Anthony Nolke, Associate Pediatrician-in-Chief of Children's, is now Assistant Dean of the College of Medicine.

A third University service in Internal Medicine, headed by Dr. Gordon Myers, was established at Harper Hospital early this year. There are teaching services in Internal Medicine in Detroit Receiving and Dearborn Veterans Hospitals.

In September, 1958, Wayne State University, with legislative approval, increased its Freshman



Fig. 1. Detroit Medical College—1868.



Fig. 2. Detroit Medical College—1883.

Class from seventy-five to 125 students, making it the largest class in the College's history.

The magnificent new David Whitney House, recently completed and now occupied, stands just



Fig. 3. Michigan College of Medicine—1885.

physical proximity to the medical school should bring about a closer tie and co-operation between the practicing physician, the teacher-physician, and the research-physician. Such co-operation should shorten the time-lag between theory, clinical research, and therapeutic application. A partnership between the medical school and the medical society, with each having free access to the other's facilities, is unique and holds the promise of minimizing the friction that exists in many teaching centers between practicing physicians and faculty.

Dean Gordon Scott has placed high on his priority list the construction of a Postgraduate Medical Center so that Michigan's 6,000 practicing physicians will have more adequate opportunities in their endeavors to keep abreast of medical progress. He envisions this new building as a combined clinical and didactic teaching center with dining and housing facilities for the physician-student, at a reasonable all-inclusive fee.

Also high on the list is the building of student-



Fig. 4. Michigan College of Medicine—1889.

north of the Medical Science Building. It is the newest addition to the Medical Campus area. It houses the expanding activities of the 3,000 members of the Wayne County Medical Society. This

faculty apartments. At the present time, the student body and faculty are scattered all over the metropolitan area. Such distant living distracts the students from complete attention to the study of



Fig. 5. The new Wayne State University Medical Science Building—1954.

medicine and adds to their expense. Many of them are forced to seek employment to supplement their funds, with the result that a highly undesirable diversion of energies and talents is created. Campus apartments would be self-liquidating and funds should be readily available for their construction.

Six acres bounded by Larned, Lafayette, Rivard and the proposed Chrysler Expressway, have been purchased by the University for institutional buildings as yet undesignated.

To accomplish its objectives of education, research and service, the College of Medicine is closely affiliated with many institutions. Both Detroit Receiving and Herman Kiefer Hospitals, operated by the Department of Health, are available to the College for teaching purposes. Together, they furnish 2100 teaching beds. The Veterans Administration Hospital of Dearborn under the direction of a Dean's Committee is used extensively for undergraduate and graduate teaching. This adds 911 more teaching beds. Wayne County General Hospital (3000 beds devoted primarily to mental and geriatric cases) and the William Seymour Hospital (573 beds, general medical and surgical cases), both supply clinical material for teaching purposes. The Lafayette Clinic (142 beds) provides a model teaching center for mental illnesses with the chief emphasis being on research into the cause of mental illness. The Clinic also serves as a center for many of the graduate educational activities of the State Department of Mental Health. In addition to Children's and Harper Hospitals, both Grace and Detroit Memorial Hospitals are closely associated with the College.

The Scientific Director of the Detroit Institute of Cancer Research also serves as Professor of Experimental Oncology at the College. Many research problems are investigated jointly by members of the two staffs. A close relationship also exists with the Kresge Eye Institute whose staff members also serve on the faculty of the college.

From the beginning, the school has been close to the citizens of Detroit and the State of Michigan. Both its student body and its faculty have been largely indigenous. Wayne State University College of Medicine situated in a highly industrialized urban center, with its constantly expanding facilities, looks forward to even greater growth and resulting increased services to the people of Wayne County and the State of Michigan.

5057 Woodward Avenue
Detroit 2, Michigan

Enzyme-treated Whole Milk in Infant Feeding

Report of a Study from the Detroit Department of Health

By Joseph G. Molner, M.D.
C. Dale Barrett, M.D.
Anne L. Barlow, M.B., B.S.
and Ruben Meyer, M.D.

Detroit, Michigan

THIS STUDY was initiated to determine the possibilities of feeding infants from birth an undiluted, pasteurized, enzyme-treated whole cow's milk without added carbohydrate. Investigations were limited to a comparison of the incidence of respiratory infections, diarrhea, and possible nutritional problems as evidenced by weight measurements, digestive upsets and general clinical appearance of the infants. Bacteriologic studies were made to obtain information regarding the safety of feeding infants an unboiled, but pasteurized fresh cow's milk product. In the household the enzyme-treated milk was offered to the infant without being subjected to terminal sterilization. The modified milk under study consists of fresh whole milk into which proteolytic pancreatic enzymes, mostly trypsin and chymotrypsin, are introduced prior to pasteurization. The effect of this is to hydrolyze about one per cent of the milk protein.[3] It is also claimed to result in a softening of the curd tension of cow's milk rendering it more like that of human milk with respect to its digestion in infants and adults.[2] In this process as interpreted by Conquest and associate, the hydrolysis of milk casein is stopped after the split-off of the outer shell of amino acid radicles of the protein molecule, so that casein digestibility is improved, while the excessive release of free amino acids is prevented. A recent report shows that the proteolytic activity of this enzyme-treated milk closely corresponds to that of human milk,[4] also that in the first three or four months of life the proteolytic enzymes of the pancreas are comparatively low.

Dr. Molner is Detroit Commissioner of Health. Dr. Barrett and Miss Barlow are in the Division of Maternal Child Health, and Dr. Meyer is Associate Professor of Pediatrics at Wayne State University.

This study was aided by a grant from the Medical Dairy Specialties, Inc., of Chicago, Illinois. The enzyme-treated milk was Enzylac® which was supplied by the C. F. Burger Creamery, Detroit, Michigan. Dextri-Maltose® and Tri-Vi-Sol® were made available by Mead Johnson Company of Evansville, Indiana.

Methods

Infants for study were selected at birth and closely followed by nursing visits in the home and by visits to the child health clinics. The selected infants were divided into three approximately equal groups: (1) breast-fed infants, (2) infants fed an evaporated milk formula, and (3) infants fed the enzyme-treated milk. Comparisons between the three groups were made on the basis of weight gains, number of stools per day, incidence of diarrhea, frequency of colic and respiratory infections, and skin rashes.

Selection of Cases.—Only normal, healthy babies with a birth weight of over 2500 grams, born at Herman Kiefer Hospital, a municipal institution, during the period November 7, 1954, through April 4, 1955, were accepted for study. Mothers desiring to fully breast feed their infants for at least three months were assigned to the breast-fed group. Mothers with no interest in breast feeding were assigned to one of the other two groups in the following arbitrary fashion: infants whose birth dates were on even dates were assigned to the evaporated milk formula group; those whose birth dates were on odd dates were assigned to the enzyme-treated milk group. Average birth weights were approximately the same in all three study groups.

The feeding plans for each group were initiated in the hospital at birth. During the hospital stay both the formula and enzyme-treated milk were subjected to a heat of 230 degrees F for ten minutes in compliance with State Health Department regulations. All infants in this study were discharged home on the third post-natal day.

One hundred forty-nine babies in the breast-fed group, 120 in the evaporated milk group, and 134 in the enzyme-treated milk group eligible for clinic care were accepted for study. Thus a total of

TABLE I. INFANT DIARIES AND AVERAGE NUMBER OF DIARY INFORMATION PER CHILD
By Month of Life and Study Group

Month of Life	Type of Feeding					
	Breast		Formula		Enzyme-Treated Milk	
	No. Infants with Diaries	Average No. Days Information Per Child	No. Infants with Diaries	Average No. Days Information Per Child	No. Infants with Diaries	Average No. Days Information Per Child
0	149	——	129	——	134	——
1	120	23.9	106	23.5	117	24.6
2	109	25.1	98	25.7	108	27.2
3	86	24.6	82	24.8	99	25.7
4	72	26.2	70	26.5	88	26.0
5	64	26.3	62	26.3	77	27.6
6	58	25.3	53	25.9	68	23.9
7	42	25.3	38	23.4	46	19.1

412 babies were assigned for home follow-up; 97 per cent were colored; 52 per cent were male.

Home Follow-up.—A public health nurse visited the home of each infant dismissed from the hospital not later than the fourth day after discharge.

Nursing visits continued at intervals of four weeks until the infant was seven months old. These visits fell between clinic visits so that the babies were seen either at home or in the clinic every two weeks. A day-to-day history on each child was obtained from a health diary kept by the mother. Table I shows the number of completed diaries available for each month of life, and the average number of days per child for which the diary was kept.

Feeding Plans in the Home

Group 1—Breast Feeding.—For the purposes of this study, infants were considered to be fully breast-fed if they required no more than the equivalent of one artificial supplementary feeding daily and if breast feeding was continued for at least three months. Of the 149 admitted to the study for home and clinic follow-up, eighty-six babies were fully breast-fed for three months, and fifty-eight were breast-fed for an additional three months.

Group 2—Formula Feeding.—Babies in the formula-fed group were discharged from the hospital with a formula of evaporated milk seven ounces, water 11 ounces, and carbohydrate (Dextri-Maltose) three tablespoons. This was changed at the first clinic visit to evaporated milk 13 ounces, water 19 ounces, and the carbohydrate to five tablespoons. The feedings were ad libitum. At six months of age, the carbohydrate additive was eliminated and whole milk was substituted. Mothers were instructed in the method of terminal heating the prepared formula in a boiling water bath for twenty-five minutes.

TABLE II. AVERAGE NUMBER OF STOOLS PER DAY
By Month of Life and Study Group

Month of Life	Average Number of Stools Per Day Type of Feeding		
	Breast	Formula	ETM*
1	3.4	3.2	3.4
2	2.1	2.7	2.8
3	1.9	2.4	2.5
4	1.6	2.4	2.3
5	1.7	2.1	2.4
6	1.7	2.1	2.3
7	1.9	2.2	2.5

*Enzyme-treated Milk

Group 3—Enzyme-treated milk feeding.—In the hospital, babies in this group were fed an autoclaved product. In the home, these infants received a pasteurized but not sterilized milk. Enzyme-treated milk was delivered to the home in quart bottles by a commercial dairy. The instruction card for this group stressed importance of refrigeration of the product and advised mothers to pour the milk from the dairy bottle into previously boiled nursing bottles, cover, and refrigerate. Mothers were told to warm (not boil) the milk for the baby's feeding, which was to be offered ad libitum.

Supplemental Feedings: Infants in all groups were given identical vitamin supplement (0.6 cc. of Tri-Vi-Sol) daily, starting at the age of two weeks. Mothers in all three groups were encouraged to add solid foods as follows: cereal at two months; fruit at two and one-half months; vegetable preparations at three months: and mashed potato at five months.

Results

Stool Frequency and Diarrhea.—Table II shows that, except for the first month, breast-fed babies

TABLE III. DIARRHEA: INCIDENCE PER 100 DAYS EXPERIENCE AND AVERAGE DAILY STOOLS DURING DIARRHEA
By Month of Life and Study Group

Month of Life	Incidence of Diarrhea			Average Daily Stools During Diarrhea		
	Type of Feeding			Type of Feeding		
	Breast	Formula	ETM*	Breast	Formula	ETM*
1	4.7	3.0	5.0	5.1	5.4	6.2
2	0.5	2.1	3.1	3.6	3.9	5.2
3	0.5	1.9	1.2	2.3	4.5	3.2
4	0.2	1.9	0.4	2.0	4.2	2.2
5	0.5	1.1	1.0	2.5	4.1	5.6
6	1.2	3.1	0.6	3.1	5.3	3.9

*Enzyme-treated milk

TABLE IV. RESPIRATORY INFECTION: INCIDENCE PER 100 DAYS EXPERIENCE
By Month of Life and Study Group

Month of Life	Type of Feeding		
	Breast	Formula	ETM*
1	10.6	5.3	6.3
2	11.5	10.6	16.0
3	8.7	12.7	12.6
4	11.3	15.6	13.6
5	10.9	12.6	11.6
6	9.6	7.8	8.9

*Enzyme-treated Milk

tend to have fewer stools than the two artificially fed groups.

Diarrhea was defined as any pronounced increase in the stool frequency pattern or a marked tendency towards watery stools. This change in pattern was determined from an inspection of the diaries and was usually quite marked for any individual child.

It was difficult to compare the number of separate episodes occurring in any one month of life because of overlapping into the following month. Therefore, it was decided to compare the frequency of diarrhea (or other sickness) in terms of the total life experience available for each month, expressed as an incidence rate. This rate was derived as follows: Morbidity rate equals the total days sickness per month divided by total days recorded per month times 100.

$$M = \frac{\Sigma \text{ SD} \times 100}{\Sigma \text{ RD}}$$

(SD = number of sick days recorded. RD = number of days recorded)

Thus incidence rates as defined herein are directly comparable for all three groups.

The severity of diarrhea experienced within each group was reflected by the number of daily stools during the illness. Average daily stools reported on days with diarrhea have been calculated, and are shown in Table III.

Except for the first month, the incidence rate of diarrhea for the breast-fed group was definitely lower than for the artificially fed groups; breast-fed infants also had fewer stools during the attack. After the first two months infants fed enzyme-treated milk had less diarrhea and fewer stools per attack than did the infants on formula.

Respiratory Infection.—Mothers were instructed to record on the Health Diary any cold symptoms noted in their babies. The incidence of respiratory infections so recorded per 100 days experience is shown in Table IV. For study purposes, the following criteria of severity were used: a mild respiratory infection was characterized by rhinitis and mild cough; a moderate respiratory infection included fever and other systemic symptoms; a severe respiratory infection included complications such as bronchitis, otitis, or pneumonia. These observations are shown in Table V.

Rash.—The frequency of rash for the study babies was noted on the health diaries. In practice, this was extremely difficult to evaluate as the location of many of the rashes was not known, and only a few of the babies suffering from rash were seen by a physician. As a general rule, the incidence of rash was highest in all groups during the first three months of life and fell off after the third month.

Colic.—Colic was defined for the purposes of the study as any evidence of persistent restlessness accompanied by apparent abdominal discomfort, or incessant crying following feedings. The incidence of colic was unusually low in all three groups. This complaint was largely limited to the first two months of life with no one feeding regime offering an advantage over the others in its avoidance.

TABLE V. RESPIRATORY INFECTION: NUMBER AND PERCENTAGE OF TOTAL EPISODES RECORDED By Group and Severity of Infection (Six Months' Experience)

Type of Feeding	Severity of Infection									
	Mild		Moderate		Severe		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Breast	67	48.2	46	33.1	3	2.2	23	16.5	139	100
Formula	53	34.2	60	38.7	5	3.2	37	23.9	155	100
Enzyme-treated Milk	71	42.5	59	35.3	6	3.2	31	18.6	167	100

Weight Gain.—Every child was weighed on each clinic visit. Table VI shows the attendance and average weight per child for each month, by study group and sex. A study of these weights shows that the formula and enzyme-treated milk fed babies experience a similar pattern of weight gain. This is especially marked when data for the sexes are combined. Breast-fed babies show a slightly greater average weight gain during the first month for both sexes, despite the fact that the infants received little apparent nourishment during the first few days of life. This initial advantage is maintained to the fifth month.

Mortality.—One child in the formula group was admitted to the hospital in the sixth month of life and died within twenty-four hours from diarrhea and bronchopneumonia. Another baby in the formula group died at two weeks of age; autopsy reported pneumonitis and atelectasis. Two deaths also occurred in the enzyme-treated milk group, one child died, aged seventeen days, with an autopsy report of bilateral pneumonitis. A second baby in the enzyme-treated milk group was found dead in bed at three and a half weeks of age; autopsy reported pneumonia. The health diary for this child was kept up to the day of death and no abnormality was noted. These four deaths, two in the formula fed group and two in the enzyme-treated milk group, are the only deaths occurring in the study period. None of the breast-fed babies died.

Bacteriology.—During the first few months of life and certainly throughout the early weeks, it is generally accepted that any form of milk offered to the infant should be free of any pathogenic organisms and as nearly sterile as possible. To achieve this, the milk must be prepared according to so-called aseptic techniques or by the terminal heating method. For the commercially pasteurized enzyme-treated fresh milk product used in this study, the "aseptic" method is advocated by its producer on the assumption that there are no pathogens present in the milk upon delivery. Once delivered, it is expected that this milk will be promptly refrigerated. For each feeding, a portion is poured into a clean, boiled nursing bottle, warmed and fed immediately to the baby.

To determine the bacteriological safety of the milk three procedures were employed: Coliform counts, using violet-red-bile agar (Difco) poured plates; total colony counts, ascertained by the usual technique; the presence of cocci determined by the use of dextrose azide broth (Difco). Milk samples showing a coliform count of zero to ten colonies per cc. were regarded as clean and satisfactory.

Throughout most of the study, weekly coliform counts were run on randomly selected samples of the dairy-delivered enzyme-treated milk. This gave a good indication of the bacteriological condition of the milk as it was delivered to the consumer. In order to discover how much and how often the mothers might contaminate the milk in the home, a sampling of prepared nursing bottles was made. Each mother was asked to bring in an extra nursing bottle of the enzyme-treated milk on her second visit to the clinic. This amounted to sampling what would have been offered to the infant from that day's batch of milk. The bottles were collected by the clinic nurse and sent packed in ice to the Enteric Disease Laboratory of the Department of Health. The same sampling procedure was made on the evaporated milk formula series, where the mothers had all been instructed to terminally "sterilize" the formula by subjecting it to twenty-five minutes of heating in a boiling water bath.

Over a period of sixteen months, sixty-one bacteriological examinations were made at about weekly intervals on the dairy delivered enzyme-treated milk. Total colony counts and results obtained on dextrose azide broth were within acceptable range and revealed nothing of significance. On eleven occasions, the coliform count exceeded ten colonies per cubic centimeter. These

TABLE VI. NUMBER OF BABIES WEIGHED AND AVERAGE WEIGHT
By Month, Sex and Study Group

Age	Type of Feeding: Breast				Formula				Enzyme-Treated Milk				Total			
	Male		Female		Male		Female		Male		Female		Male		Female	
	No. Weighed	Average Weight	No. Weighed	Average Weight	No. Weighed	Average Weight	No. Weighed	Average Weight	No. Weighed	Average Weight	No. Weighed	Average Weight	No. Weighed	Average Weight	No. Weighed	Average Weight
	Grams		Grams		Grams		Grams		Grams		Grams		Grams		Grams	
Birth	78	3260	71	3203	64	3203	65	3147	70	3232	64	3118	212	3232	200	3175
1 mo.	65	4394	59	4224	54	4111	55	3997	63	4111	58	3912	182	4196	172	4054
2 mo.	54	5415	49	5216	45	5103	48	4593	57	5216	52	4791	156	5245	149	4961
3 mo.	48	6265	44	5727	43	5953	41	5755	52	6095	46	5613	143	6095	131	5698
4 mo.	45	6974	39	6549	41	6435	40	6492	49	6946	43	6350	135	6889	122	6464
5 mo.	45	7513	37	7087	38	7513	38	7059	48	7683	39	6917	131	7569	114	7031
6 mo.	42	7881	36	7456	33	7881	37	7569	42	8250	36	7428	117	8023	109	7484
7 mo.	39	8250	32	7966	30	8505	34	8023	41	8618	31	7740	110	8448	97	7910
9 mo.	33	8902	25	8590	23	9412	30	8788	33	9441	25	8363	89	9242	80	8590
12 mo.	20	9781	15	9526	15	10433	21	9922	22	10574	17	9185	57	10263	53	9554

TABLE VII. SUMMARY OF BACTERIOLOGIC FINDINGS ON NURSING BOTTLE SPECIMENS OF FORMULA AND ENZYME-TREATED MILK PREPARED BY MOTHERS UNDER HOUSEHOLD CONDITIONS

	Formula		Enzyme-treated Milk	
	Number	Per Cent	Number	Per Cent
Total specimens	65	100.0	85	100.0
Specimens with coliform counts 0-10 colonies per cc	41	63.1	43	50.6
Specimens with coliform counts above 10 colonies per cc	24	36.9	42	49.4

occasional high counts were attributed to technical failures in the dairy plant after pasteurization and have since been eliminated. There was no increase in the incidence of diarrhea in the babies fed the enzyme-treated milk during the time relatively high coliform counts were noted in the laboratory.

Regardless of whether the "aseptic" method or the terminal heating method is recommended to mothers, no method will ensure safety of the formula for infant feeding unless the physicians' instructions are carefully and conscientiously carried out by the mother. As seen from Table VII, large numbers of mothers in both groups seemingly failed to heed the instructions regarding the handling of formula or enzyme-treated milk evidenced by frequent occurrence of excessively high coliform counts. There was no detectable increase in diarrhea among infants inadvertently fed bacteriologically contaminated milks.

Failures in technique were apparently less common in the evaporated milk group, but the difference was not statistically significant.

Discussion

Babies in each of the three study groups seemed to thrive equally well regardless of the feeding plan used. Infants on breast appeared to have a slight advantage in lower stool frequency when compared to either the enzyme-treated milk or formula-fed groups.

Earlier work on the results of feeding enzyme-treated milk to infants were reported from Cook County Hospital by Maurice Blatt[1] and his coworkers in 1940. The work was done with institutional children entirely. Seventy-five children were started on this same product in the first month of life and only eleven remained under observation for six months. Controls using other forms of milk numbered 38 initially and only seven re-

mained for six months. Blatt reported that babies fed enzyme-treated milk had fewer stools daily and less diarrhea than those on other milk, whereas we have found babies fed this product experience the same number of stools and a similar diarrhea rate as do formula fed babies. Fewer respiratory infections were reported as occurring in enzyme-treated milk fed babies, which findings our study does not substantiate.

The enzyme-treated milk under study may be fed without modification to the newborn and this practice continued, unaltered, throughout early infancy. Neither carbohydrate additives nor dilution of the product with water was necessary in our experience. None of the babies in the enzyme-treated milk group developed clinical evidence of dehydration. It was not the intent of this study to determine whether infants would do equally well on unmodified whole pasteurized cow's milk or to assess the biochemical or physiologic properties of enzyme-treated milk.

To ensure the bacteriologic safety of enzyme-treated milk for infant feeding, certain precautions must be observed. Enzylac® as it comes from the dairy is a pasteurized but non-sterilized milk product. Like any other milk product, it can, under improper conditions of storage and temperature, provide a culture medium for the growth of certain pathogenic micro-organisms. To minimize the risk of bacteriologic contamination in the household *it is recommended that only the amount needed for a single feeding be poured from the dairy bottle.* The remainder should be kept under constant refrigeration.

The question of bacteriological safety is not alone limited to an enzyme-treated milk. Any artificial feeding can pose just as great a threat to the infant if it is not properly prepared by the producer or in the home. Ample demonstration of this problem was seen in the bacteriologic findings in the evaporated milk formula samples which showed gross contamination despite the fact that these samples had supposedly been subjected to terminal heating. *The failures in household techniques indicate that greater stress must be placed on educating mothers to the importance of careful adherence to the recommended technique.*

Summary

Four hundred and twelve infants were assigned, at birth, to one of three feeding regimens. One hundred and seventy-nine infants remained under observation for six months; fifty-eight of these were breast-fed, fifty-three received an evaporated milk formula, and sixty-eight were on enzyme-treated milk. All mothers were instructed not to introduce supplementary foods until the baby was two months old. A total of 39,052 days of infant experience was satisfactorily recorded by the mothers participating in this study.

The infants averaged 2.5 stools per day during the first six months of life; no clinically significant differences due to feeding plan were ascertained. Breast-fed babies had fewer stools, and fewe repisodes of diarrhea than did the two artificially fed groups.

The respiratory infection rate was about the same for all three groups. Infants in this study experienced between ten and 12 days of respiratory illness for each 100 days of life.

The mothers introduced heavy bacterial contamination in the preparation of both evaporated milk formula and enzyme-treated milk feedings yet in neither group was an increase in the incidence of diarrhea, respiratory infections or infant mortality noted.

From a public health standpoint, the commercially prepared and distributed enzyme-treated milk under study was found to be a safe and acceptable product for infant feeding provided the usual precautions are taken in the household in its preparation and storage.

No nutritional disturbances, as evidenced by dehydration, digestive upsets, abnormal weight gain, illness or poor general appearance were encountered when this group of free-living, healthy infants were fed an enzyme-treated pasteurized, whole cow's milk product, undiluted and without carbohydrate additives. Babies in each of the three study groups appeared to thrive equally well whether on breast, evaporated milk or enzyme-treated milk feedings.

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Detroit 26, Michigan

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Two Five-year Survivals of Carcinoma of the Esophagus

By Charles J. Koucky, M.D.
Morris W. Wilson, M.D.
and Gerald S. Wilson, M.D.
Detroit, Michigan

CARCINOMA of the esophagus is a highly lethal disease in all stages, degrees of malignancy and anatomical positions. Most patients are incurable when first seen by the surgeon, and by the time he explores the diseased area not more than 20 to 30 per cent of these lesions can be resected with any hope of cure. Although the prognosis is poor with surgery, it is hopeless without it, and it is our opinion that any patient with an esophageal cancer, unless there is evidence of distant metastasis, should at least be explored. In the event that all visible tumor can be removed and thus a cure possible, a resection with a transthoracic esophageogastrostomy is performed regardless of the location of the lesion. If it is obvious that complete removal of the tumor cannot be achieved a palliative resection is nonetheless seriously considered for lesions below the arch of the aorta.

Wilson, Powers and Johnston[1] have recently reviewed 124 cases of esophageal carcinoma treated at the Detroit Receiving and Dearborn Veterans Administration Hospitals, among which there were twenty-four patients (20 per cent) whose lesions had been resected with some hope of cure. At the time of that report, there were no patients surviving five years and only three surviving four years after esophagectomy.

The case reports of the two patients who have now survived without evidence of recurrence for a five-year period are presented. One other patient lived four and one-half years but then succumbed to pulmonary tuberculosis.

Case Reports

Case 1.—This man, white, aged fifty-nine, was admitted to the Dearborn Veterans Administration Hospital July 2, 1951, complaining of progressive dysphagia which had begun in October, 1950. This had progressed to where he could swallow only liquids and he had lost 20 pounds in weight. He had been a chronic alcoholic and was known to have had cirrhosis with jaundice and ascites in 1943. He denied recent alcoholism. Six years prior to admission, he had begun to experience exertional dyspnea with EKG signs of myocardial damage believed to be secondary to arteriosclerotic heart disease.

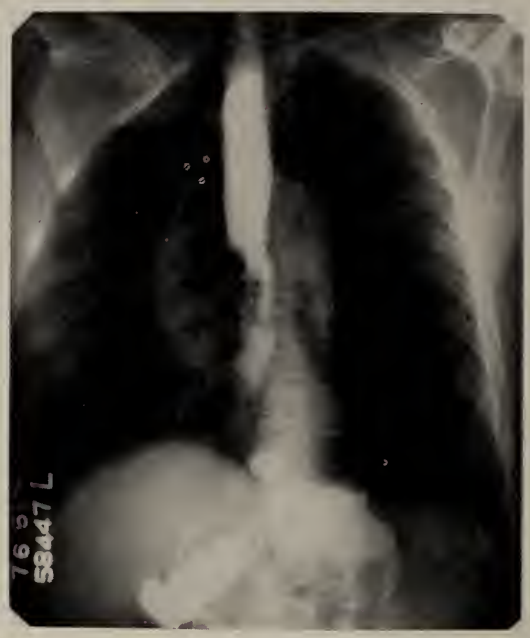


Fig. 1.

Upon examination, he was found to be well-developed and fairly well-nourished, weighing 150 pounds. His temperature was 98.6 degrees F., pulse 82 per minute, and blood pressure 130/80 mm. Hg. No notable physical abnormalities were present and there was no evidence of significant heart nor liver disease. No evidence of metastatic carcinoma was detected.

The results of the laboratory tests performed on admission were as follows: The hemoglobin was 14 gm. per 100 ml. whole blood and the white cell count was 7,600 per cubic millimeter. The differential white count was within the limits of normal. The non-protein nitrogen was 58.7 mg. per cent. The serological test for syphilis was negative. The total serum proteins were 8.4 mg. per cent with a normal albumin to globulin ratio.

From the Department of Surgery, Wayne State University College of Medicine, the Detroit Receiving Hospital and the Dearborn Veterans Administration Hospital.

Study done in part under an American Cancer Society Clinical Fellowship.

Chest x-rays and an electrocardiogram gave normal findings. An esophogram was obtained on July 6, 1951, and an ulcerating, fungating lesion extending from the aortic arch downward for a distance of 8 cm. was seen

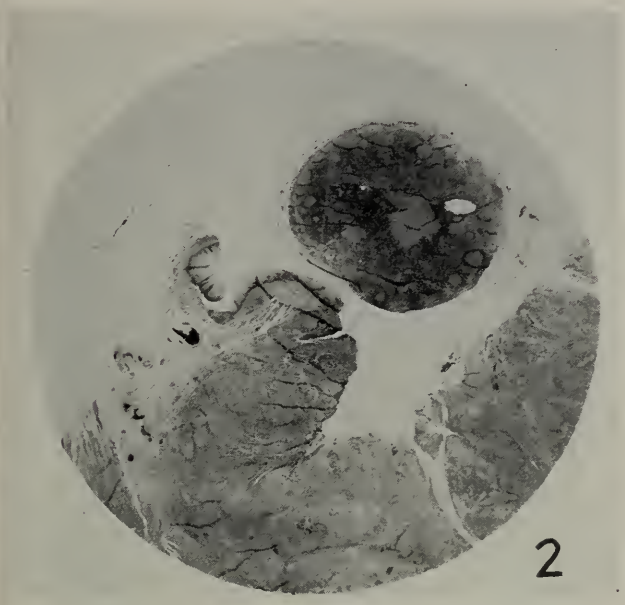


Fig. 2.

(Fig. 1). The stomach and duodenum appeared to be normal. Esophagoscopy was done on July 3 and an ulcerating and constricting lesion at 38 cm. was seen and biopsied. The pathological diagnosis was squamous-cell carcinoma.

On July 10, 1951, the patient's chest was explored through the left 7th interspace and the tumor was palpated at the level of the aortic arch. It was easily freed from the aorta but was moderately adherent to the left main stem bronchus. It was the surgeon's opinion, however, that this adherence to the bronchus was not due to invasion by cancer. After the diaphragm was opened, the splenic vessels were ligated close to the hilum of the spleen, and because of a small laceration in the splenic capsule this organ was removed. The gastrocolic omentum was then transected to the pyloric area staying outside the gastro-epiploic vessels. The left gastric vessels were sacrificed but care was taken to preserve the right gastric and right gastro-epiploic arteries. The cardio-esophageal junction was transected and the stomach was closed in three layers. The esophagus was then freed above the aorta and transected in this area at least 3 inches above the superior aspect of the tumor; a second 1 cm. cuff of distal esophagus was removed to reassure an adequate resection. The stomach was delivered into the area previously occupied by the esophagus and fixed to the superior mediastinum prior to completing a two-layered esophagogastrostomy. The circulation through the upper stomach was good throughout the procedure. After fashioning a new diaphragmatic hiatus, a thoracotomy tube was inserted and the chest was closed.

On gross pathologic examination, the resected segment of esophagus was 12 cm. in length. In the proximal 8 cm., the wall was considerably thickened and indurated. On cut section, the deeper layers were infiltrated by grayish-white finely granular tumor tissue. These changes extended to the proximal margin of the specimen. The mucosa in this portion of the esophagus was ulcerated

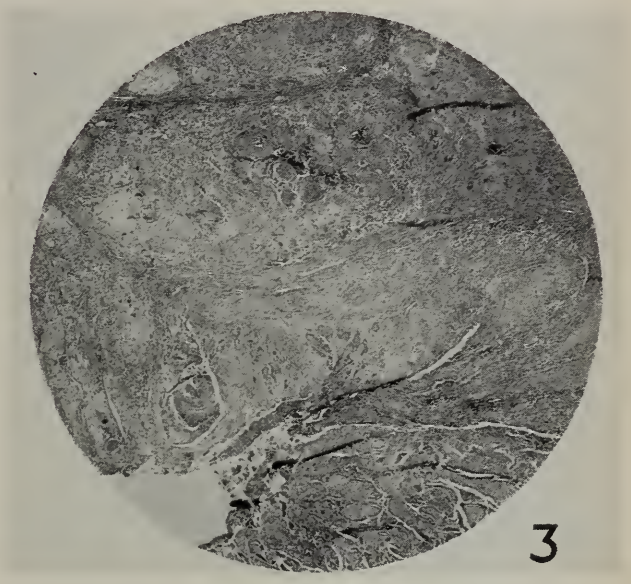


Fig. 3.

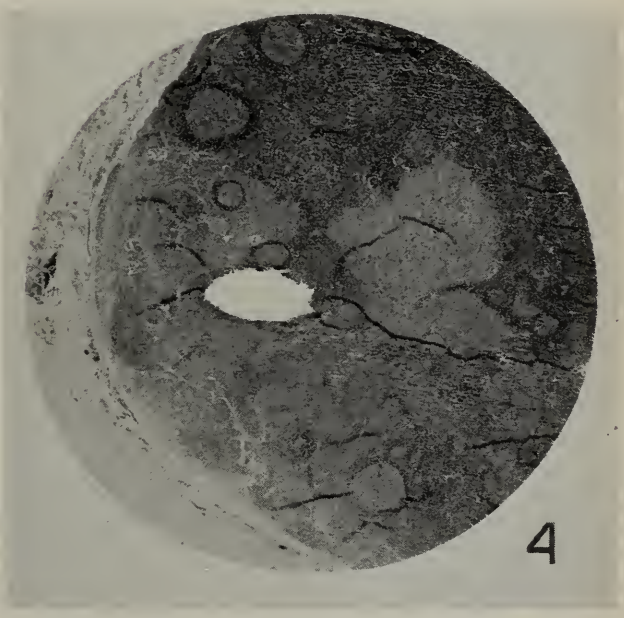


Fig. 4.

but the external surface appeared normal. A single hard node, 0.6 cm. in diameter, was attached to the resected esophagus near its upper end. Separately present was a 0.3 cm. segment of esophagus which represented the proximal end of the resected specimen. On microscopic examination, massive infiltration of the esophagus by a squamous cell carcinoma was noted. The tumor varied in its degree of differentiation and appeared to be quite anaplastic in many areas. Invasive carcinoma was found in the separately resected cuff and the lymph node was

partly replaced by metastatic carcinoma (Figs. 2, 3 and 4).

The patient's postoperative course was uneventful and he was discharged on the twentieth postoperative day.



Fig. 5.

Since his discharge, this patient has done exceedingly well. He has maintained his weight without pain or distress and has been able to lead a normal existence in every way (Fig. 5). On periodic esophagrams, the last one being August 24, 1957, he has demonstrated a satisfactory esophagogastric outlet with no evidence of residual tumor (Fig. 6).

Case 2.—This man, white, aged sixty-five, was admitted to the Dearborn Veterans Administration Hospital on August 17, 1951, complaining of progressive dysphagia and a 50-pound weight loss throughout the eight months preceding his hospital admission. In the eight weeks prior to admission, the dysphagia had become more severe and was associated with anorexia. There had been no other previous illnesses other than heart disease, for which he was taking digitalis.

On physical examination, the patient was found to be a well-developed but poorly nourished white man. The positive findings were limited to the chest where slight emphysema and cardiomegaly were noted. A loud precordial systolic murmur was heard. There was no evidence of metastatic cancer nor heart failure.

The results of the laboratory examinations done at the time of admisison were as follows: The hemoglobin was



Fig. 6.



Fig. 7.

12.8 gm. per cent, the white count was 13,250 per cubic millimeter. The urine contained an occasional white blood cell per high power field but was free of albumin and sugar. The blood urea nitrogen was 30 mg. per cent and the total protein was 6.2 mg. per cent with a normal albumin to globulin ratio. The serological test for syphilis was negative; the prothrombin time was 66 per cent of normal; there was a 2.8 per cent retention of

bromsulphophthalein dye forty-five minutes after injection. The cephalin flocculation was 3+ in forty-eight hours. The chest x-ray was normal and on July 19, 1951, a lesion in the lower third of the esophagus was

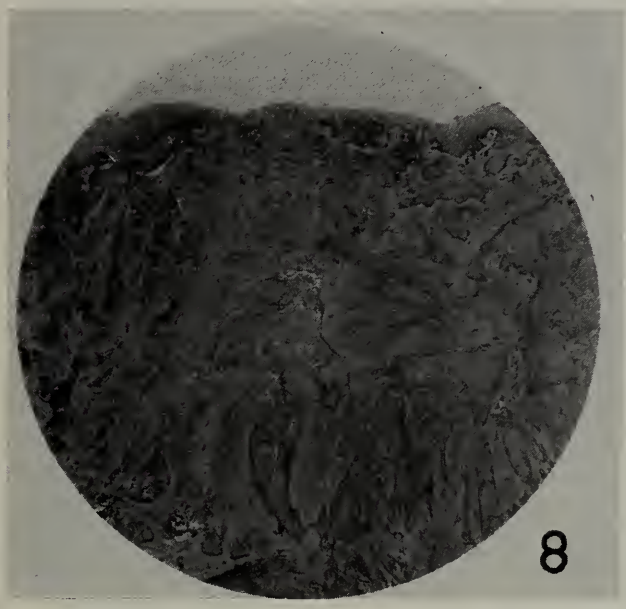


Fig. 8.

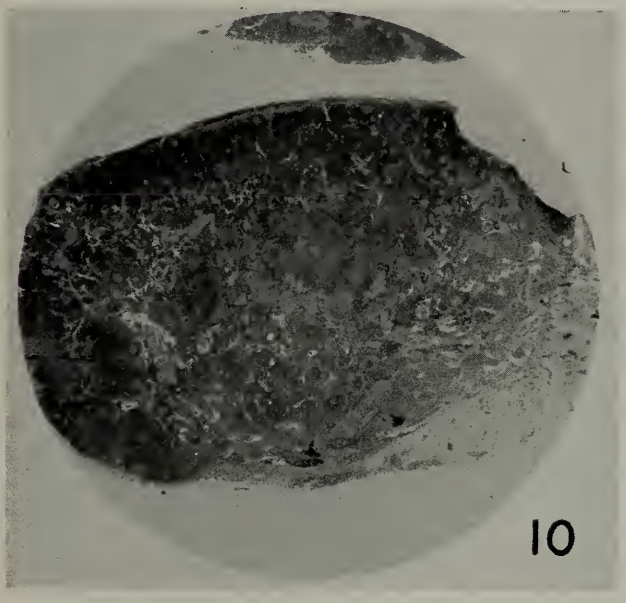


Fig. 10.

seen on an esophagram (Fig. 7). On July 20, 1951, esophagoscopy revealed almost complete obstruction of the lower third of the esophagus by a large irregular mass. A biopsy of this lesion was taken and paraffin sections showed it to be squamous cell carcinoma.

On July 30, 1951, an esophagectomy was performed through the left 7th interspace. At the time of exploration, the tumor could be felt in the lower third of the esophagus extending to about 5 cm. above the esophageal hiatus. The tumor mass was not adherent to surrounding structures and there were no palpable mediastinal lymph nodes, although upon opening the diaphragm several enlarged lymph nodes were palpated along the course of the left gastric artery. The left gastric artery was there-



Fig. 9.

fore ligated close to its origin and the enlarged nodes were removed with the specimen. The right gastric vessels were preserved. The gastro-colic omentum was divided, care being taken not to sacrifice the gastro-epiploic vessels. The stomach was amputated at the cardio-esophageal junction and closed in layers. The esophagus was freed and transected about 2 inches below the aortic arch, and an esophagogastrostomy was performed at this level. The diaphragm was closed and after the insertion of a thoracotomy tube connected to underwater drainage the chest was closed in layers.

The specimen consisted of a 7 cm. segment of terminal esophagus with an attached 6.5 cm. portion of stomach. The latter was not remarkable. The esophageal wall was diffusely thickened by an infiltrating tumor to 4 cm. in width. The lesion extended to within 1 to 1.5 cm. of the proximal end of the specimen and terminated distally about 1 cm. above the gastro-esophageal junction. The mucosal lining of the esophagus in the area of the tumor was destroyed and the lumen was markedly narrowed. Numerous enlarged lymph nodes measuring up to 2 cm. in diameter were attached to the esophagus, and two of these nodes showed gross evidence of metastatic carcinoma. Microscopically the neoplasm was a well differentiated squamous cell carcinoma and in four of the lymph nodes metastatic tumor deposits were seen. Nests of tumor cells could also be identified within several pericapsular blood vessels in sections of lymph nodes (Figs. 8, 9 and 10).

Postoperatively, this patient also did extremely well and was discharged on the sixteenth postoperative day. This patient is periodically re-examined and now eats well, is maintaining his weight, has had no symptoms of

esophagitis, and at present is living a normal life (Fig. 11). On periodic x-ray studies, a normal esophagogastric junction is seen with no evidence of recurrence, although there have been constant irregularities at the anastomotic site probably due to pseudo-diverticuli (Figs. 12 and 13).



Fig. 11.

Summary and Conclusions

Two five-year survivals of cancer of the esophagus following esophagectomy with transthoracic esophagogastrostomy are reported. The level of the tumor was beneath the arch of the aorta in one case necessitating a supra-aortic anastomosis, while in the second case an infra-aortic anastomosis was possible. It is discouraging to note that in only about 20 per cent of the total number of patients with carcinoma of the esophagus can resection be done with any hope of removing all malignant tissue, which emphasizes the point that surgical cure will be improved only when the diagnosis can be made before distant metastases or local spread has precluded the possibility of a cure. In both these cases, lymph node metastases were already present, and these five-year survivals can only be explained on the basis that all carcinomatous tissue had been removed or that the tumor is slow-growing and recurrence may not become manifest until later.

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Yates Memorial Clinic
4811 John R. Street
Detroit 1, Michigan

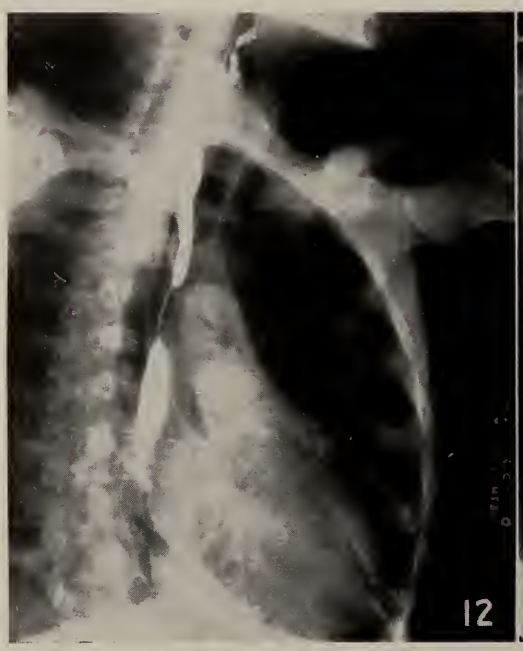
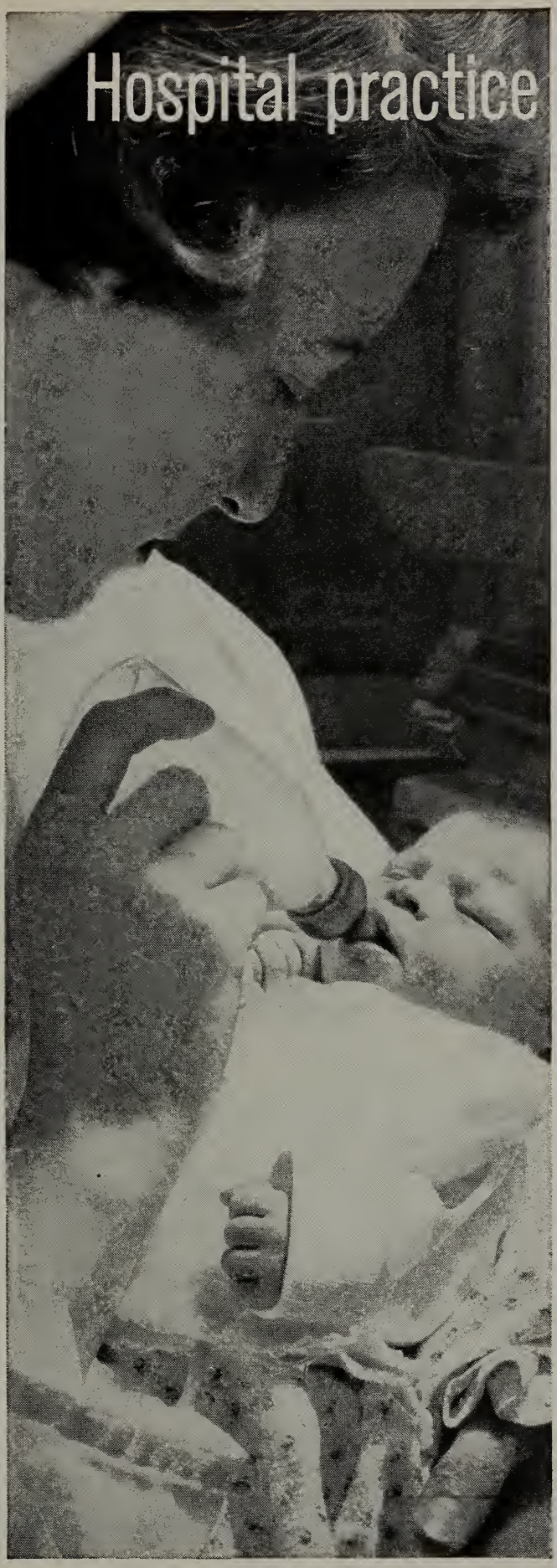


Fig. 12



Fig. 13.



Hospital practice of infant feeding

Standard one-formula mixture

Normal infant nutrition requires approximately 50 calories per pound of weight. Caloric distribution should be about 15% from protein, 50% from carbohydrates and 35% from fat as formulated for the mixtures in the tables below.

For young infants, a favorable hospital formula consists of a milk and Karo Syrup mixture, isocaloric with human milk, e.g. 20 calories per ounce.

WHOLE MILK FORMULA

FORMULA	OZ.	TOTAL CALORIES	CARB. CAL.	FAT CAL.	PROT. CAL.
Whole milk	24	480	5%	36%	14%
Water	22	—	—	—	—
Karo Syrup	1½	180	45%	—	—

EVAPORATED MILK FORMULA

FORMULA	OZ.	TOTAL CALORIES	CARB. CAL.	FAT CAL.	PROT. CAL.
Evaporated milk	11	484	5%	36%	14%
Water	22	—	—	—	—
Karo Syrup	1½	180	45%	—	—

An infant will usually take 2 to 3 ounces more than his *age in months* at 3 to 4 hour intervals to satisfy his appetite and nutritional needs. It is psychologically unwise to force prescribed amounts. Normally, the gain in weight of 6 to 8 ounces a week during the earlier months gradually diminishes to 3 to 4 ounces a week by the end of the first year. The standard one-formula mixture not only provides adequate nutrition when vitamin supplements are added; it also provides educational opportunities to prevent feeding problems.

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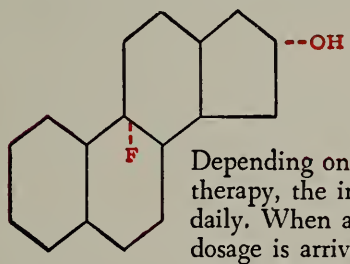
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The Mesoappendix after Appendectomy: A Potentially Constricting Band

By Daniel D. Heffernan, M.D.
Detroit, Michigan

FOLLOWING appendectomy, the mesoappendix can become a dangerous band. This can probably be prevented. To illustrate how the mesoappendix stump caused obstruction, four cases are cited.

Cases Cited

Case 1—Mrs. R. B. (Crittenton General Hospital, Case 9817-C), aged forty-one, maid in a doctor's home, bent over to pick up a baby on December 13, 1948. She suddenly felt a severe cramping pain in her upper abdomen. She vomited several times, had no flatus nor bowel movements. Seven hours after onset, she was in the hospital where generalized abdominal tenderness was found, maximal in the right lower quadrant. An appendectomy had been done four years previously, with rapid recovery and no trouble since. At operation shortly after admission, 3 feet of gangrenous ileum was resected, the obstruction having been caused by a band formed from the mesoappendix stump.

Case 2—Mrs. E. A. (Harper Hospital, Case 36100), aged twenty-five, one month postpartum, was admitted nine hours after sudden onset of severe cramping paraumbilical pain. She did not vomit. An enema a few hours after onset yielded a questionably bloody return. On admission, she was in agonizing pain. Six hours later, she was in the operating room where 18 inches of gangrenous ileum was resected. This loop was strangulated by a band originating from the mesoappendix stump. Her appendectomy had been done eight years earlier with no symptoms in the interval.

Case 3—Mrs. A. M. (Crittenton General Hospital, Case 15004-C), aged thirty-four, had four days of epigastric pain and vomiting prior to admission. Her pain later became generalized. She had no bowel movements after onset. At operation, intra-abdominal fluid and many distended loops of ileum were found. A mesoappendiceal band was severed relieving the obstruction. All bowel was viable. Her only previous surgery had been a uterine suspension and appendectomy with no symptoms prior to present illness.

Case 4—R. L. (Crittenton General Hospital, Case 24475), the six-year-old son of a physician, had severe cramping right lower quadrant pain for six hours prior to admission. This began while eating. He vomited freely and passed no flatus nor stools after onset. At operation, the abdomen contained a good deal of fluid and many dilated ileal loops, with non strangulating obstruction at the terminal ileum from a band originating at the mesoappendix. The appendectomy had been done three months earlier with no interval symptoms.

All four patients had uneventful postoperative recoveries.

Similar obstructions occur quite commonly. A review of all cases operated on at Crittenten General Hospital between January 1, 1946 and December 31, 1955 showed forty-one patients operated on for small bowel obstruction due to postoperative bands. Of these, fourteen had had only appendectomy and four had appendectomy combined with other abdominal or pelvic surgery. Of the eighteen patients, eight cases of obstruction were probably due to the mesoappendix and three cases were certainly due to the mesoappendix.

TABLE I. OPERATIONS FOR OBSTRUCTION DUE TO POSTOPERATIVE BANDS
Ten-Year Period

Total number cases	41
Previous appendectomy only	14
Previous appendectomy plus other abdominal or pelvic surgery	4
Probably obstructed by mesoappendix stump	8
Definitely obstructed by mesoappendix stump	3

The band here spoken of may be constructed if the mesoappendix is cut near its attachment to the appendix (Fig. 1-a), and if then the raw edge left behind becomes adherent for part of its extent to the ileum, to the ileal mesentery, or to the cecum or peritoneum thus creating a noose (Fig. 1-b). A loop of bowel may then slip through this noose and be trapped (Fig. 1-c).

This trap probably can be avoided by amputation of all the mesoappendix along with the appendix, when feasible, combined with ligation of the entire mesoappendix stump. By so doing, a ligated surface remains where the mesoappendix

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had been. This surface should be about level with the surrounding visceral peritoneum and completely ligated. The raw edge of mesoappendix will become agglutinated to a nearby surface

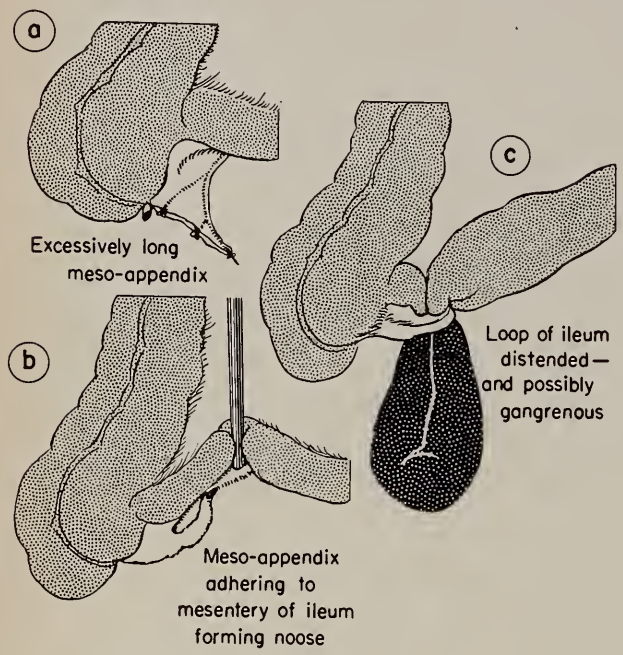


Fig. 1.

within a few hours. When separation occurs at the level of the ligatures after a few days, the end result should be a smooth nonadherent surface at the level of the ligatures. The principle here is the same as that for the appendiceal stump which has been ligated without inversion. In his discussion of the appendiceal stump, Horsley[3] states: "After the stump is digested and removed, the adherent omentum or mesentery drops away and leaves a smooth cecal wall which presents merely a slight scarring." The same phenomenon can be expected for a completely ligated mesoappendix.

Review of the literature indicates that the method here described of dealing with the mesoappendix probably deserves emphasis. Shackelford[5] demonstrates his technique of excising and ligating the mesoappendix close to its root flush with surrounding visceral peritoneum. He does not elaborate on the important reason for doing this, however.

Maingot[4] and Horsley and Bigger[3] demonstrate methods of covering the raw edge of mesoappendix with fat tags, redundant mesoappendix, or cecal serosa. This, however, may not remove the potentially dangerous band, in fact in doing this with less than the greatest of care one may create a noose.

Other authors, in text-book descriptions of appendectomy, have given little thought to the potential hazard of the mesoappendix. Cole[1] emphasizes careful ligation of individual vessels in the mesoappendix, but his illustrations show the mesoappendix being divided very close to the appendix. Cutler and Zollinger[2] depict a dangerously long mesoappendix being constructed, but in the following illustration it appears to be well ligated close to the cecum. However, in their discussion no stress is placed on amputation.

It is concluded in this paper that the mesoappendix following appendectomy can form a dangerous band, and that this likely can be prevented by amputation and complete ligation of the mesoappendix.

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1550 Tuxedo Avenue
Detroit 6, Michigan

FOR PEACE OF MIND

Dr. William C. Menninger advises executives: ". . . set aside a little time once a year, at least, to decide where you are going, what are your priorities, ambitions, aspirations. Maybe you are the president. So what? What in your personal life is most important to you? What is your time allotment in terms of those things? Do you know whether you are going in the right direction, and, most of all, where you want to get to? Not just in your businesses alone, but also in the personal things—your own free evenings, your own feeling of status and worth-whileness in life, your own dignity, your own integrity, your family."

Reiter Triponemal Antigen in the Diagnosis of Syphilis and in the Evaluation of Biological False Positive Reactions

By Albert DeGroat, M.D.
and Walter H. Miyao, B.A.
Detroit, Michigan

THE EXISTENCE of false positive reactions for syphilis became known early in the development of serological tests and were exhaustively studied by some of the pioneers,[5] but it was not until World War II that their importance was generally appreciated and the circumstances of their occurrence investigated on a large scale. One of us (DeGroat)[3] had the opportunity of studying the question in 1941-42 with Doctor Kahn at his elbow and was able to anticipate in practice, by a couple of years, the basic directive dealing with the handling of false positives issued by the Surgeon General. This directive can still serve as a reliable guide. False positive reactions presented no great problem in the Army because it was possible to treat them expectantly until reversal occurred, and on a percentage basis the number was small. But in civilian life, the situation is totally different due to laws and regulations, noble in purpose, that make a negative blood test a requirement for marriage or employment.

As long as all serological tests were based upon lipid antigens, all of them were of necessity pretty much alike in regard to specificity or the lack of it. As early as 1942, it had become apparent that the possibilities in lipid antigens were nearly exhausted. The verification tests of Kahn still offered hope and were not without value. These, at least, had the merit of proving that more than one reagin was involved in positive reactions. Progress in the serology of syphilis could only be gotten off dead center by the introduction of an antigen that was truly specific. Practical solutions were finally forthcoming in the treponema immobilization test (T.P.I.) of Nelson and Mayer[6] and the treponema complement fixation test (T.P.C.F.) of Portnoy and Magnuson*, the latter being a protein antigen derived from virulent organisms.[7] While successful, both of these tests are beyond the technical resources of many laboratories and the average pocket book, the cost of the former being about $35.00 and the latter $3.00 per test.

At the same time, thinking along these lines was going on in Europe, and D'Alessandro of Palermo[2] seems to have arrived at the same end by extracting a non-pathogenic treponema, the Reiter strain which had long been the subject of studies yielding, heretofore, no practical results. This antigen offers the promise of stability, hence ease of handling, and at the same time cheapness due to simplicity of production. The cost is said to be less than one cent per test. Neither the Portnoy or the Reiter antigen pretend to be specific beyond the ability to identify antibodies to treponemas as a group without regard to strain.

Through the generosity of the late Dr. C. R. Rein of New York and of Dr. J. H. Bekker of Utrecht, Netherlands, a supply of the Reiter antigen was obtained by the laboratory of the Detroit Health Department, Herman Kiefer Hospital, and this is a report on a few months' experience with it.

With the antigen in hand, the first problem was how to use it. This point suggests a long digression that will be avoided. It is enough to note that the diagnosis of modern syphilis is largely serological making standardization of techniques and comparative studies of various serological tests a necessity and the first conference devoted to this objective, held in Hot Springs, Arkansas, 1938, is a milestone in medicine. In addition to settling on techniques, much superstition and nonsense in regard to interpretation and reporting was swept away. In dealing with these matters, Dr. J. E. Moore was in especially fine fettle. A survey on a nationwide basis that preceded the meeting became the model for subsequent bigger and better ones but these no longer seem to advance the diagnosis of syphilis because of increasing difficulty in determining with certitude what one is testing.

For this reason, after running about 1,200 comparative tests on cases that showed some degree of

From the Laboratories of the Detroit Health Department.

*These investigators succeeded in eliminating the ubiquitous lipid antigen that had brought failure to all previous attempts to develop a specific treponemal antigen as far back as Noguchi's early work.

reactivity to the standard Kahn, it became apparent that most of the work was lost, as far as reaching any solid conclusions was concerned.

However, from a modest number of cases where clinical records had been abstracted, the following results are derived. The complement fixation test, using the Reiter antigen with Kolmer technique, is designated as the R.P.C.F. In most cases, a Kolmer employing the cardiolipin antigen was available and also a quantitative Kahn. Note that the base line of reactivity is set by the cardiolipin Kolmer complement fixation reaction and it should be remembered that this reaction possesses a high degree of sensitivity and persistence. The sensitivity is such that, in the belief of some workers, it takes the test out of the field of usefulness in the diagnosis of syphilis as a disease and in the control of treatment.[1] It may remain positive after other tests based on lipid antigens have become negative and long after there is any question of active syphilis being present.

Cases were divided into three categories:

1. Strongly suspected biological false positive reactors.

2. Lipid antigens giving persistently positive reactions; positive diagnosis of syphilis probable.

3. Cases where the diagnosis of syphilis was confirmed by clinical or spinal fluid findings.

1. *Biological false positives*

R.P.C.F.		Kolmer, cardiolipin	
Reactive	1	Reactive	10
Non-reactive	43*	Non-reactive	31
		No record	3

2. *Probable syphilis; diagnosis based upon serology, all treated*

R.P.C.F.		Kolmer, cardiolipin	
Reactive	27	Reactive	46
Non-reactive	19	Non-reactive	0

3. *Known cases of syphilis; treated*

R.P.C.F.		Kolmer, cardiolipin	
Reactive	85	Reactive	87
Non-reactive	17	Non-reactive	6
		No record	9

*One case of lupus erythematosis with positive Kahn and Kolmer over many years.

It can be assumed, where the record was incomplete, that whenever the R.P.C.F. was positive, the cardiolipin Kolmer reaction was likewise positive. Exceptions to this have been virtually non-existent. Both tests frequently showed a greater reactivity than the standard Kahn. These points have a bearing on our conclusions.

Discussion and Conclusions

The above results accord in a general way with those already reported by Rein, D'Alessandro, and DeBruijn.[8] These authors made a comparative study with a wide variety of lipid antigens, two R.P.C.F. techniques, T.P.I. and T.P.C.F.

Garson and Cannefax have recently reported a similar study.[4]†

The all-important fact that emerges is the freedom of the R.P.C.F. from biological false positive reactions, and this justifies the conclusion that the R.P.C.F. will prove of inestimable value in clarifying the status of cases where a B.F.P. is in question.

Finally, it appears that the specificity of the R.P.C.F. is genuine and is unrelated to sensitivity, and the sensitivity is about 20 per cent less than that of the cardiolipin complement fixation test.

Acknowledgments

Dr. Charles R. Rein of New York University and Dr. J. H. Bekker, Director of the National Institute of Public Health, Utrecht, Netherlands, kindly provided the Reiter antigen. Dr. Loren Shaffer, Director of the Social Hygiene Clinic of the Detroit Health Department and Dr. Benjamin Schwimmer, Assistant Director, co-operated in the study by supplying the clinical cases and assisted in cataloging them in the classifications specified

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1151 Taylor Avenue
Detroit 2, Michigan

†Pending is a report on a large scale comparative survey under the auspices of the U. S. Public Health Service of all lipid and treponemal antigens, the tests being carried out by the author laboratories. When this becomes available it is hoped that one will be in a better position to evaluate the accuracy of tests based upon treponemal antigens.

Principles in the Treatment of Closed Chest Injuries

By Raymond J. Barrett, M.D.
and William M. Tuttle, M.D.
Detroit, Michigan

THE MAJORITY of chest injuries are closed, in the sense that there is no communication between skin and pleura. They are most commonly incurred in automobile accidents; occupational mishaps and falls account for most of the remainder. Where trauma to the chest has been extensive there will usually be associated injuries beyond the confines of the thoracic cage. In such instances, the care of these patients will usually be in the hands of other than the thoracic surgeon. Because of these circumstances, it may be helpful to discuss the types of injury, the physiologic handicaps thus acquired, and methods of treatment.

Fractured Ribs

There will seldom be chest injury of any severity without associated fracture of one or more ribs. If the fractures are causing enough pain to warrant hospitalization they deserve intercostal or, even better, paravertebral nerve block. A nicety, although not a necessity, is the additional blocking of the nerve immediately above the first and below the last fracture. We have not been impressed with the long term results of one injection of procaine and feel that repeated injections are both time-consuming for the surgeon and harrowing for the patient. Good results have been obtained with injection of each nerve with 3 to 5 cc. of Eucupin-in-oil®, having first used procaine in raising skin wheals and infiltrating the superficial tissues. Routinely, only one block has been necessary with this long-acting anesthetic.

Taping of the chest as a routine measure should be mentioned only to be condemned. To relieve pain by this means, the hemithorax must be rendered immobile with resultant decreased excursion of the underlying lung. This produces exactly the opposite of the desired effect of early return to normal respiratory dynamics. However, in the ambulatory patient who is not hospitalized, taping may add considerable comfort.

We have not found it necessary or advisable to attempt to wire or otherwise fix the ribs, nor to perform any type of open reduction for over-riding of the fractures.

Wet Lung Syndrome

Many names, such as "traumatic pneumonitis," "traumatic patchy atelectasis," have been attached to this condition in the past. Its true nature was established during World War II. Essentially, it consists of an intercostal nerve-vagus nerve reflex resulting in vagal stimulation with resultant bronchospasm and bronchorrhea. The spasm of the bronchi, in association with increased secretions from the bronchial mucosa, causes multiple patchy areas of atelectasis. Patients so affected are cyanotic, dyspneic, "wet", and have an ineffective cough. Prophylaxis is more effective than treatment in this condition; an intercostal nerve block serving to cut the afferent arm of the reflex arc. Atropine has seemed to be much less effective.

Hemithorax

If there is fluid within the pleural space, as determined by x-ray shortly after injury, it may be safely assumed to be blood. The lung is lacerated as the fractured rib ends spring inward at the moment of injury. In most instances, only a peripheral capillary ooze results. With considerable accumulation of blood, one most suspect bleeding intercostal vessels or, if the fractures are peristernal, laceration of the internal mammary trunks. These, being part of the cystemic circuit, can pour out a surprising amount of blood in a short time. A rule of thumb states that one aspirates with a needle when the dome of the diaphragm is covered with fluid as seen in the roentgenogram. If a patient slips into shock because of intrapleural bleeding (and not because of some associated injury), recovers with transfusion, and then slips back into shock again, one is justified in

From the Department of Surgery, College of Medicine, Wayne State University, Harper Hospital, and Detroit Memorial Hospital, Detroit, Michigan.

®White Laboratories, Inc., Kenilworth, N. J.

entertaining plans for thoracotomy, particularly if the hemithorax is obscured in the films. In actual practice, it is seldom necessary to open the chest. As long as there is any question of continuing bleeding, blood should be removed by intermittent needle aspiration rather than by tube drainage. Vigorous attempts should be made to aspirate all possible blood from the pleural space in the ensuing few days in order to lessen the possibility of the development of a clotted hemothorax with resultant necessity for later decortication of the lung. If the latter should prove necessary, it is done optimally from four to six weeks after injury. The use of streptokinase and streptodornase as hemolyzing agents has not been very effective in our hands and, in addition, has resulted in several deleterious reactions ranging from severe shock to persistent bronchopleural fistula.

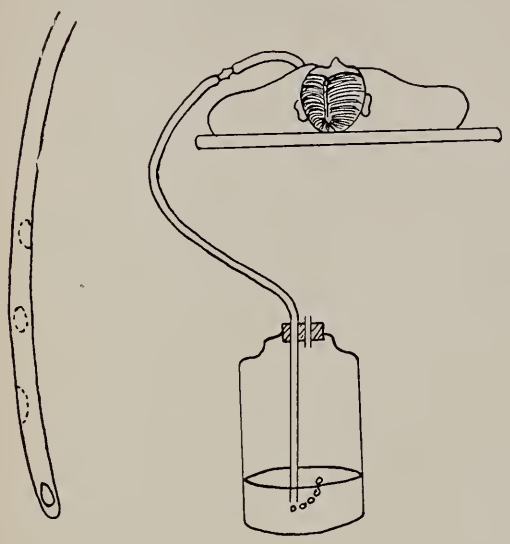


Fig. 1 (a) Drawing representing additional openings cut around the circumference of the catheter in its terminal 2 to 3 inches. (b) Catheter inserted into the pleural space and connected via an adapter to the rubber tubing from the closed drainage bottle. A long and a short glass tube passes through the two holes in the rubber cork. The purpose of the short glass tube is to exhaust air to the outside after it has passed out of the chest, through the tubing and bubbled up through the water. If this vent were not present, air pressure above the surface of the water would come into equilibrium with pressure in the pleural space and further evacuation of air from the latter would cease. The long glass tube should extend about one inch beneath the surface of the water.

Pneumothorax

As mentioned previously, the lung is lacerated when the rib ends spring inward at the moment of impact. Thereafter, with each inspiratory descent of the diaphragm, air is aspirated via the rent in the lung into the pleural space. The gradual accumulation of intrapleural air results in collapse of the affected lung and may progress to actual tension pneumothorax with shift of the mediastinum into the opposite hemothorax. Evacuation of this air and re-expansion of the lung so that the visceral rent is applied against parietal pleura will ordinarily result in tamponading of the rent with subsequent fibrinous adhesion and sealing. Therefore, an intercostal tube should be placed within the pleural space whenever there is over 15 per cent collapse, or if the degree of collapse is progressing. The tube should be attached to a water-seal drainage bottle and the latter should always be at floor level. When transporting the patient, the tubing should be clamped before lifting the bottle. If this were not done, and the bottle were elevated to the level of the chest, the fluid in the bottle would be siphoned into the chest, following which occurrence a tension pneumothorax would rapidly develop.

Technique of Intercostal Tube Drainage (Fig. 1).—If a lateral film has not revealed the presence of anterior adhesions, the most desirable location for the insertion of the tube is in the second anterior interspace. In the recumbent position, this will be the highest point in the chest and will allow removal of the last vestiges of air. No special instruments are necessary and the tube may be readily inserted while the patient is in bed. After preparation and draping, an area of the second interspace 3 fingerbreadths lateral to the sternum (to avoid the internal mammary vessels) is infiltrated with procaine. Infiltration is carried throughout the depth of the chest wall, and the needle is introduced into the pleural space to confirm the presence of free air at the selected site. The latter being confirmed, additional quantities of procaine are injected just external to the pleura. While waiting the few moments necessary to obtain anesthesia, one may spend the time cutting three or four additional holes in the last 2 to 3 inches of a No. 20 or No. 22 French catheter. Their purpose is to prevent premature occlusion of the catheter resulting from contact with blood clot, lung, or chest wall (Fig. 1-a). One then makes a small nick in the skin with a scalpel and, using blunt dissection with a hemostat, gradually makes an opening through the overlying muscles and pleura into the free pleural space. Care should be taken during this maneuver to stay toward the lower border of the interspace in order to avoid the intercostal vessels. The catheter is then grasped by the hemostat and introduced into the pleural space, making certain that all openings in the catheter lie

within the pleura. The catheter is then attached to the tubing from the water seal drainage bottle. Details of the water seal drainage bottle, all of whose components must be sterile, are shown in Figure 1-b. A skin suture is then passed through

creases of pressure from the ascent and descent of the diaphragm, is forced out through the rent in the parietal pleura and begins its dissection along the tissue planes. If the air can be evacuated from

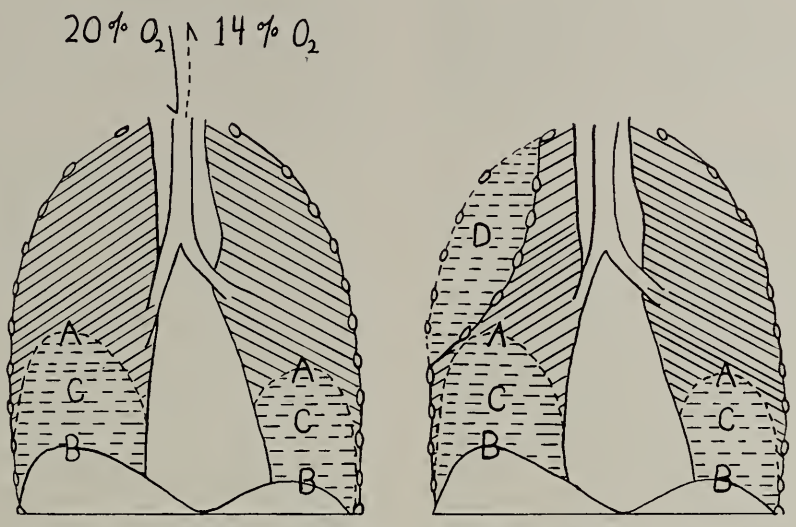


Fig. 2 (a) Diagram representing the normal chest with the change in lung volume (C) which occurs when the diaphragm contracts from a position of expiration (A) to a position of inspiration (B). (b) Here the upper portion of the right chest wall is considered to be flail. With the descent of the diaphragm on inspiration, the flail portion of the thoracic cage falls inward from its normal position to the new position shown. The volume of this collapse (D) may be less than, equal to, or greater than the volume (C) which in a stable chest wall would result in increase in lung volume. According to the degree of the above, the underlying lung may (1) inflate slightly on inspiration, (2) remain relatively constant in volume throughout the respiratory cycle, (3) become smaller on inspiration and larger on expiration. If the latter is the case, on inspiration the affected lung will exhale air to mingle with incoming air destined for the opposite lung. Correspondingly on expiration, the affected lung will become larger and inhale the opposite lung's exhaled air. This pendelluft (to-and-fro respiration), if untreated, is not a condition associated with great longevity.

the skin edges and the catheter, gauze dressings are applied and the catheter is additionally fastened to the skin with two or more three-tailed straps of adhesive tape.

Subcutaneous Emphysema

Subcutaneous accumulations of large quantities of air are alarming to the patient, particularly when the eyelids become so distended that the eyes cannot be opened. Although this condition is very seldom fatal, it could progress to the point where air tension in the tissues exceeded venous pressure with consequent interference with venous return.

The same rib fragments which lacerated the lung at the moment of injury obviously lacerated the parietal pleura at the same time. Air in the pleural space, subjected to alternating increases and de-

the pleural space, further formation of subcutaneous emphysema will be aborted. Thus, use of the intercostal tube with waterseal drainage will handle the pneumothorax and prevent further subcutaneous emphysema at the same time.

Occasionally, one will find a rapidly progressing subcutaneous emphysema with no x-ray evidence of pneumothorax. This seeming paradox is explained by the fact that the patient has a fused visceral and parietal pleura, the result of an old pleuritis. The patient has no pleural space. It would be impossible for him to develop either hemothorax or pneumothorax. Therefore, with each expiration, part of the air contained in the lung is expelled via the trachea and the remainder leaves via the rent in the lung, across the fused visceral and parietal pleura and into the tissue

planes. This air, being 80 per cent nitrogen, is poorly absorbed from the tissues. If one places such a patient under 100 per cent oxygen via mask, he will then blow readily absorbable oxygen into the tissues, and further formation of subcutaneous emphysema will cease at that point. The rent will gradually seal, as do nearly all lung lacerations, and the need for oxygen can be gradually tapered off.

Flail Chest

Posteriorly, the ribs are heavily reinforced by interlacing muscular attachments, but anterior to the posterior axillary line this support becomes relatively insignificant. Multiple fractures of ribs or bilateral fractures of the same or adjacent ribs may leave the intervening anterior portions of the chest wall lacking in bony support. In such circumstances, the natural tendency is for that portion of the chest wall to fall inward, as occurs when the bony supports are removed in a thoracoplasty. Such patients are said to be suffering from paradoxical motion of the chest wall, since that portion of the thorax which is unstable falls inward on inspiration and balloons out on expiration. Reference to Figure 2 and its legends will give a clearer concept of this condition.

If severe, flail chest can rapidly prove fatal. Therefore, prompt and adequate measures are mandatory. *Emergency treatment* proposes to stabilize the flail chest in the collapsed position. This emergency immobilization may be carried out by pressure of the hands alone, pressure by sandbags or elastic taping applied over voluminous pressure dressings. The method used depends upon the degree of emergency and the materials available at hand. Having obtained a collapsed but stable chest wall, descent of the diaphragm on inspiration will not cause any further reduction in the volume of the hemithorax—thus the underlying lung can inflate on inspiration (although to a lesser degree than normal). Conversely as the diaphragm rises on expiration, the chest wall cannot balloon out and, as a consequence, the underlying lung will deflate. Thus normal respiratory dynamics are approached.

Definitive treatment envisages an attempt to allow the underlying lung to inflate to full normal volume. It is accomplished by pulling the flail portion of the chest wall out to its normal position and maintaining it there until some degree of stabilization and fixation occurs. Towel clips or uterine tenacula are attached to those bony portions of the thoracic cage which are flail, ropes attached to the handles are then led in the appropriate directions over pulleys attached to a Balkan frame, and sufficient weights are attached to maintain stabilization of the chest wall in the expended position. To be effective, the traction must be applied to bone and not to skin or subcutaneous structures.

Traumatic Diaphragmatic Hernia

The forces at the moment of injury may be so great as to rupture the diaphragm. This condition may go unrecognized for several days. Occasionally a dilated, fluid-filled stomach is tapped at thoracentesis in an attempt to remove the "pleural effusion." The first intimation that all is not well occurs when obvious gastric juice is identified in the aspirating syringe. In addition, strangulation and subsequent rupture may occur in the acutely incarcerated viscera of a traumatic hernia. For these reasons it is well to always remember the possibility of this condition and, if in doubt, to attempt to prove or disprove its presence. The easiest initial step is to pass a Levine tube into the stomach prior to obtaining the admisison chest films. If the tip of the tube is seen above the expected level of the diaphragm (which may be obscured by blood), one should confirm the presence of hernia by injecting liviodal or thin barium. Decision for immediate surgery will depend upon an evaluation of the over-all picture. If the hernia is large, cannot be deflated by tube. and the patient's respiratory condition is being increasingly embarrassed, operation is generally indicated.

Cardiac Contusion

Blows to the anterior thoracic cage, with or without fracture, may result in contusion of the heart. In both immediate and delayed effects, such a myocardial contusion is similar to a myocardial infarction. The electrocardiogram will show myocardial damage, and treatment is essentially the same as for a fresh coronary occlusion.

Discussion

The foregoing has outlined specific complications and their treatment. Despite meticulous attention to these principles, one will find many patients who are weak, in severe pain, unable to cough effectively and rapidly progressing toward atelectasis and pneumonia. Bronchoscopy is seldom the

answer to the problem because of the frequency with which it would be required to be really effective. In such instances, it is well to do frequent tracheal catheterizations, a simple procedure which can be easily mastered by any physician. It is best performed with the patient sitting, but can be performed when he is recumbent. The patient bends his neck forward, extends his head backward, and protrudes his lower jaw. He is asked to stick out his tongue, which is grasped with a "four by four" and held so that it protrudes between the lips. A No. 18 or No. 20 French catheter is then inserted via the nostril into the posterior pharynx, the patient is requested to take a deep breath, and the catheter is rapidly advanced. Entrance into the trachea is evidenced by a spasm of coughing in the more vigorous patients. In the severely debilitated case, coughing may not occur, but the presence of the catheter within the trachea can be confirmed by asking him to say something; if the voice is normal, the catheter is in the esophagus. Suction is then applied intermittently until the tracheabronchial tree has been cleansed. If suction has to be performed at very frequent intervals, one should have no hesitation about performing a tracheotomy. This will yield the dual advantage of allowing frequent effortless suctioning plus the improvement found from decreasing the respiratory "dead space."

It should be realized that several of the conditions described may be co-existent in the same patient. The treatment for each condition remains unchanged. Thus, a patient with a flail chest, hemothorax, and pneumothorax would require intercostal nerve blocks, an intercostal tube with water seal drainage, repeated needle aspiration of the blood, bony traction to stabilize the chest wall and, in addition, would probably require frequent tracheal catheterization and possibly tracheotomy.

Note should be made that it is very seldom necessary to open the chest in order to properly handle these patients. The surgical procedures described are all of a relatively minor nature, require a minimum of equipment and, in most instances, can be done in the emergency room or in bed.

Conclusion

An attempt has been made to demonstrate the derangements in function resulting from closed chest injuries. It is recognized that many injuries of this nature will be associated with other severe trauma and that the majority of such cases can and will be treated by other than thoracic surgeons. Better results will be obtained if the concepts, which have been discussed, can be substituted for the "tape them and put them in a tent" school of therapy.

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307 David Whitney Building
Detroit 26, Michigan

SPECIALTY GROUPS

"A (fourth) thing that I think is wrong is the influence of the specialty groups. I do not know to what we could attribute this. I do know that since the war, at the state meeting, instead of all going to the annual meeting of the Association, many of us started going on Saturday, going to our own specialty groups and heading out for home. Instead of being physicians, we have become surgeons, orthopedists, pediatricians, anesthesiologists, obstetricians, and internists. We no longer are members of the Florida Medical Association; we are members of our own specialty groups, and, to say the least, we all have a fairly narrow point of view when it is confined to that particular group. I think it is absolutely essential that once more we become physicians, that we become greatly interested in the problems of medicine, rather than the problems of surgery, the problems of orthopedics, or the problems of any specialty group. We must take an interest in this thing in so far as it affects all of us, because if one of us sinks, all of us sink. We have here in this state a problem that is not confined to Florida, the matter of adequate payment for medical services. It is a problem which must be solved, because we cannot have any segment of the medical profession which is not wholeheartedly behind Blue Shield."—Robert E. Zellner, M.D., Member of Florida Medical Association Advisory Committee to Blue Shield, *Journal, Florida Medical Association,* March, 1958.

Physiologic Obstetrics

By Paul A. Bowers, M.D.
Philadelphia, Pennsylvania

THE TERM "physiologic" according to Webster,[6] refers to "an organism healthy or normal functioning." Dorland[3] states that "physiologic" means "normal—not pathologic." It is not a new concept that obstetrics is one branch in medicine which in most cases has to do with the normal. For years we have been instructed to adopt a policy of "hands off" or "watchful expectancy," as long as progress in the birth process was satisfactory. This was most evident during the days of early obstetrics and because of the surroundings there was little other choice. The old family physician with his home deliveries, of necessity, administered minimal amounts of analgesia and anesthesia; he relied on familiar surroundings and the support of family and friends.

Then came the era when our large hospitals constructed isolated maternity departments. Obstetrics became somewhat shrouded in mystery—families were no longer together during the lying-in period. Since the patient was not in the customary habitat of her own home and comforted by the presence of her loved ones, some substitute had to be made. The search for the perfect obstetrical drug then began and the pendulum swung to the extreme of over-dependence upon drugs with neglect of the time-honored support of the patient by her physician. A very impersonal attitude resulted and the patient was considered as a case number, being cared for by a number of doctors and members of clinical teams, with no one taking the time or interest to really listen to the patient.

Pavlov and Cannon have taught us about conditioned reflexes and the relationship between emotions and visceral function. Slowly the pendulum has returned and we have acknowledged a basic truth: the patient is composed, indivisibly, of mind and body and should be treated as an inseparable whole. Dr. Grantley Dick Reed accepted these principles and in 1929 came along with his panacea—"natural childbirth." Dr. Reed felt that we were neglecting the patient's psyche along with robbing her of the emotional satisfaction of participating in the delivery of her child; he insisted that the psychologic side of obstetrics be treated along with the physical.

It would seem that a middle-of-the-road policy adopting what is best from each era—is advisable. None of us would be anxious to return to the days of home delivery, nor would we wish to give up the conveniences of the well-equipped delivery room.

The preparation of the patient for labor and delivery begins with her first office visit. Let us assume that Mrs. Jones has made her appointment for today and comes into the office filled with anxiety regarding what is ahead of her. It may well be that she has never exposed her genitalia before, let alone experienced a pelvic examination. How many of us would saunter jauntily into one of our colleague's office if faced with a sigmoidoscopic or cystoscopic investigation? How reassuring it would be if our new patient found several other patients, perhaps well advanced in pregnancy, sitting around happily conversing with one another; a proud new mother accompanied by her baby and awaiting her postnatal checkup would be comforting. Following the complete history and physical examination we are back in our consultation room talking to both the patient and her husband. We have established the diagnosis of pregnancy and assured the patient of her good health and apparent ability to carry and deliver her baby normally. We have thoroughly discussed the diet, activity, and so-called hygiene of pregnancy. If we can encourage our patient to talk about herself and how she feels about this pregnancy we have accomplished a great deal. Perhaps a simple question, such as, "How do you feel about having this baby?" may be all that is needed. Our patient needs to feel that we are vitally interested in her and will not be disappointed in what she has to say.

What else can we do besides plan for regular and periodic visits and promise the patient we will be available day or night in case any difficulties arise? We can attempt to answer her

questions regarding any symptoms she may have and not just brush them aside as being due to her pregnancy. These symptoms may include: (1) food idiosyncrasies, (2) nausea and vomiting, (3) weeping, (4) anxiety, (5) sensitivity to criticism, (6) claims on her husband's attention. Newton[4] in her monograph on "Maternal Emotions" calls attention to the fact that nausea and vomiting in pregnancy may be related to undesired sexual experiences, or excessive dependency of the patient upon her mother. She has noted that the patient may be particularly nauseated the day following intercourse. It is well to explain to the patient that many women may be unhappy during the early months of pregnancy, but as pregnancy progresses the patient will find herself becoming more interested and eventually eager for the baby's arrival. After all she must be anxious to know whom the baby will resemble and whether it is going to be a boy or a girl.

It seems that once the patient has placed herself in competent hands, made her hospital reservation, and been told that the pregnancy is definite and not just a possibility, she seems to "settle down" and be more comfortable about it. The patient who has not definitely planned her pregnancy but finds her menstrual period overdue, is only too anxious to think of all possible causes other than pregnancy. Once, however, the diagnosis is definite, the emotionally mature patient accepts the idea and plans accordingly.

Symptoms of weeping, sensitivity to criticism, demanding attitudes and embarrassment are probably the results of restrictions, decreased social attitudes, changes in relationship with husbands, and wounded pride due to changes in physical appearance. If this can be discussed with the patient, she may feel a great deal better about her symptoms. Anxiety and tension in pregnancy are well recognized and may be responsible for producing some complications. We are all aware of the hazards of childbirth, but it has been stated that there is less danger from obstetric complications than there is danger of accidents incident to everyday living. The average obstetric patient secures confidence from the competence of her obstetrician as well as from the reputation of the maternity department of her chosen hospital.

The preparatory process continues by means of classes usually held at the hospital or the physician's office. These classes are appropriately called "Mother's Classes" and "Father's and Mother's Classes." The anatomy of the female and explanation of the physiologic changes which take place in pregnancy and presented. By means of charts the growth and development of the fetus is explained along with the reason for the various changes in the body. Slides and motion pictures are excellent means of instruction. A liberal question and answer period at the close of each formal session is helpful. At the conclusion of the last class, the group is usually taken on a tour, beginning at the hospital admission rooms, through the labor and delivery rooms, past the nurseries, and terminating in the ward or hospital room which the patient has reserved.

The education of the patient should not be completely delegated to the mother's classes. It is recognized that no instruction will take the place of the patient-physician relationship. The physician must discuss freely and to the patient's satisfaction many of the changes taking place. This all takes time but is a means of instilling confidence and granting support which is a necessary part of the program.

When labor begins and the patient is hospitalized, the patient's husband should be permitted to remain with his wife. It is felt that his presence contributes a great deal to the patient's mental comfort and reduces the anxiety which frequently results when a patient is placed in strange surroundings awaiting a new experience. Sedation may be given to the patient when she feels the need for it. The knowledge that pain-relieving drugs are available contributes much to the patient's peace of mind.

Many of the husbands accompany their wives to the delivery room. These fathers-to-be have made almost as much preparation for the delivery as their wives. They have attended classes, accompanied their wives on some office visits, taken an active part in the discussions, and usually read voluminously. They are not in the delivery room as a curious spectator but rather as a member of the team. Their main purpose, of course, is to give support to their wives. After being gowned, capped, and masked, they are given a stool beside the delivery room table. An easy exit from the delivery room is provided but rarely used. They help urge their wives on to greater effort in the bearing down stage and observe carefully the progress being made. Frequently they may sound like an announcer at a ball game describing the play and interpreting what is taking place.

Most deliveries are spontaneous, enlisting the patient's co-operation during the bearing down state. Local anesthesia such as pudendal block or regional infiltration is administered for episiotomy and repair; nitrous oxide and oxygen by intermittent inhalation is available during the contraction, if requested. It has been found that multipara women who may have an unpredictable second stage of labor, frequently prefer the modified Sims position instead of the customary lithotomy position for delivery, for the following reasons: (1) it is more comfortable, (2) the bearing down reflex seems stronger, and (3) there is lessened incidence of post-delivery backache.

The Sims position may be chosen by the obstetrician; (1) to avoid circulatory disturbances resulting from the pressure of the gravid uterus upon the large vessels as described by Mengert, (2) for those patients who have had an operative procedure upon their back such as a spinal fusion, (3) patients with a bony deformity of the lower extremity which does not permit abduction of the thighs. It has been reported that the diameter of the outlet, especially the antero-posterior may be increased slightly. Following the birth of the baby it is important that the uterus be supported by an attendant until the placenta has separated and delievered. If not, the uterus tends to fall back and to the side of the pelvis and may fill up with blood during the stage of placental separation. If an episiotomy has been done, the patient is placed in the lithotomy position for its repair; therefore, when the indications do not exist, the Sims position is usually reserved for the multipara who have an unpredictable second stage of labor and may not require an episiotomy.

Following the repair of the episiotomy, the infant is placed to the breast while the patient is still on the delivery room table. This affords an ample opportunity for the mother to fondle and inspect her new baby and seems to be comforting to both. It is granted that the nourishment obtained by the infant is limited, but if the baby can be introduced to the breast before the bottle, the chances for successful breast feeding are much greater.

In the past several years, non-ligation of the cord has been practiced. The cord is not immediately clamped and cut following delivery; rather the placenta is delivered following its separation, and both baby and placenta are placed in the waiting baby table until the episiotomy has been prepared. This additional twenty-minute interval permits most of the blood from the placenta (which is placed at a higher level than the baby) to enter the baby's circulation; the vessels collapse and when the cord is cut approximately 5 inches long, rarely does bleeding result. It is important not to "strip" the cord after cutting of any clot which may have been formed. It is felt that by delayed cutting and non-ligation the following is accomplished:

1. The baby receives all of the blood available from the placenta.
2. The incidence of delayed cord bleeding is reduced.
3. The cords dry up more readily.
4. There is less danger of cord infection, since little blood is "locked in" the cord—blood which could act as a culture media for bacterial growth.

The patient and her husband return to her room together; occasionally the baby makes the return trip in the mother's arms. Within twelve hours the mother is out of bed and then "rooming-in" is begun. In the simplest form, rooming-in consists of placing the baby in a crib beside the mother's bed. The new mother can thereby participate in the care of her infant and can more readily learn how a newborn baby behaves while she is in the protecting shelter of a hospital and surrounded by competent help. It is felt that rooming-in contributes a good deal to the success of breast feeding—which is usually on the demand basis. "Demand feeding" involves placing the baby to the breast when he or she is hungry, not adhering to the strict three or four-hour routine usually followed. It has been found that after several days, most of these babies adopt a fairly regular nursing schedule at intervals of three to four hours. The father is encouraged to participate in the care of the baby on his subsequent visits, the family thereby functioning as a "unit" even while in the hospital.

A few additional principles which are not covered in the foregoing discussion should be mentioned.

1. Blood transfusions are only prescribed after careful evaluation and usually in consultation with a member of the department of hematology. The editorial "One Pint of Blood" presents in a graphic way the dangers involved. To quote Dr. Crisp,[2] "Numerous authors have reported a higher

TABLE I. PAST HISTORIES OF X-RAY EXAMINATIONS
(547 Children with Malignant Disease and 547 Controls Matched for Age, Sex, and Locality)

Number of Mothers and Children X-Rayed		Leukemia		Other Malignant Diseases		All Malignant Diseases	
Period	Type of Exposure	269 Cases	269 Controls	278 Cases	278 Controls	547 Cases	547 Controls
Antenatal	Diagnostic of abdomen	42	24	43	21	85	45

From Stewart, A. W., et al.[5]: Lancet, 2:447 (Sept. 1) 1956.

TABLE II. DELIVERIES
(Sept. 1, 1954 - Aug. 31, 1955

Service	Number	Type				Maternal	
		Spont.	Forceps	C. Section	Breech	Morbidity*	Mortality
Private	1268	837—(66%)	288—(23%)	96—(7.5%)	47—(3.7%)	20—(1.5%)	1
Ward	1055	923—(87.5%)	51—(4.8%)	56—(5.3%)	25—(2.3%)	28—(2.6%)	0

*According to the definition of The Joint Committee on Maternal Welfare, United States.
Jefferson Medical College Hospital.

mortality rate from single blood transfusions than from either appendectomy or ether anesthesia." It is recognized that a physiologic anemia may be present which responds to an adequate diet plus iron therapy. The pregnant patient is also able to withstand bleeding to a remarkable degree and still compensate for it. Therefore, the patient who needs only one pint of blood probably needs no blood at all.

2. Routine x-ray pelvimetry is not practiced. It has been reported by Stewart[2] et al[5] that the fetal gonads receive irradiation in excess of 2.5 Roentgens during routine x-ray pelvimetry. In this survey conducted in England, it was found that of the 547 children who had died of a malignant disease, eighty-five mothers had been exposed to diagnostic x-ray examinations of the abdomen during pregnancy. This was in contrast to forty-five mothers in the control group (Table I). Therefore we have the dangers to the fetus which manifests itself after birth, in addition to the damage to maternal and fetal germ cells. The patients who have obvious disproportion do not need pelvimetry. The patients who are felt, clinically, to have "borderline pelvis" may be observed in early labor and if progress is not satisfactory, a "progress film" may be taken—rather than a routine pelvimetry in the latter weeks of pregnancy *plus* a progress film.

3. The routine administration of intramuscular vitamin K to the infant has been discontinued. It has been found that in the healthy patient in normal labor, there is little danger of hemorrhage of the newborn. It is doubtful that administration of vitamin K to the patient in labor exerts any significant effect on the offspring, but this procedure has been continued. The danger of introducing infection into the baby is reduced by omitting any unnecessary injections.

4. In mothers who do not wish to breast feed, no hormones are given to suppress lactation. The estrogens appear to be the most efficacious in relieving congestion of the breasts but the incidence of delayed postpartum bleeding is ever present. The testosterone group seem to have little effect. Therefore firm supporting brassieres, ice applied locally, mild analgesics, and scrupulous cleansing to prevent infection are probably adequate.

What are the benefits of physiologic obstetrics?

1. Labors are usually shorter; the labor pattern is not interferred with by too early or too heavy sedation.

2. Deliveries which are spontaneous are less traumatic both to mother and child.

3. Babies appear healthier—they are not depressed by sedation and anesthesia.

4. Earlier ambulation of mothers is possible, thereby hastening early and more complete involution.

5. Cementing of family relationships. This might be described as "a labor of love." The father no longer feels "left out" but feels that he has played an active part in the delivery of his child. He has lent his support from the very beginning by attending classes, and adding encouragement every step of the way. He sat with his wife through labor, perhaps rubbing her back if

TABLE III. FETAL MORBIDITY AND MORTALITY
(Sept. 1, 1954 - Aug. 31, 1955)

	Full Term		Premature		Immature	
	Delivered	Deaths	Delivered	Deaths	Delivered	Deaths
Private	1194	12	70	10	8	8
Ward	927	6	99	5	5	5

Uncorrected fetal mortality—2.33%.
Jefferson Medical College Hospital.

TABLE IV.
GYNECOLOGY PATIENTS, UNIVERSITY OF ARKANSAS MEDICAL CENTER
(July 1955 - 1957

	Total	Negro	White
Number gynec. admissions	1397	770 (55%)	627 (45%)
Number of patients with relaxation	242	46 (6%)	196 (31%)
Percent of relaxation		(19%)	(81%)
Number of prolapse	118	19 (2.5%)	99 (15%)
Percent of prolapse		(16%)	(84%)
Average parity		7.0	6.2
Average age		42 (20-65)	54 (25-82)

From Brown, W. E.—Personal communication.

needed, and giving her the confidence to go on. After witnessing the delivery, the baby was not "his" or "her" baby, but "our" baby.

What are the disadvantages of physiologic obstetrics?

A good deal of the physician's time is involved as well as his patience. Having a husband in the labor or delivery room is comparable to having a guest in one's home; it is enjoyable, but one cannot merely walk in, examine the patient, pat her reassuringly, and walk out with the remark that "everything is coming along just fine." How much easier it would be order a quarter grain of morphine or 100 mg. of demerol and ask to be called when the perineum begins to "round out." In obstetrics each of us must give something. If we are willing to give time, reassurance, sympathy, and emotional support—fewer drugs will be required. As a general rule the obstetrician who prescribes sedation and anesthesia *generously* gives little of himself.

There still remain many aspects of obstetrics which are unphysiologic. The placing of the patient upon the table in the lithotomy position is certainly not physiologic; delivery of the patient in the Sims position is not new and has been discussed earlier in this paper.

The performance of an episiotomy may not be considered completely physiologic obstetrics. However, most of us feel that the "ironing out" of the birth canal with resultant over-dilatation is not good obstetrics. If the mucosal surfaces are intact but the musculature of the pelvic floor is over-stretched, it is assumed that poor support results. However, it is rare that we see extensive vaginal relaxation among the colored patients who are cared for in our large charity hospitals by our students and interns. A number of these patients have delivered without the benefit of episiotomy or at best after only a very hesitant, limited, late incision. Perhaps it is not necessary to restore the birth canal to its original anatomic configuration.

Dr. Willis E. Brown[1] in a recent survey of the gynecologic admissions to the University of Arkansas Medical Center over a two-year period, found 242 patients with clinically significant pelvic relaxation. Although white patients accounted for only 45 per cent of these admissions, 81 per cent of the relaxations and 84 per cent of the cases of prolapse were in this group (Table IV). Apparently the avoidance of "pounding on the perineum" and early episiotomy with meticulous repair will not prevent all injuries to the reproductive tract. It may be that the fibromuscular supports of the Negro are better able to withstand the trauma of delivery and that some process akin to keloid formation takes place in the involuted reproductive tract of the Negro patient.

Probably the most unphysiologic obstetric practice of all, is the grouping together of mother and baby in one obstetric unit. Babies are crowded

together into central nurseries, and cared for by personnel who carry with them the germs of their city, their streets, and their homes. These nurses or nurses aides are not as interested in the newborn as the baby's mother. Careless, poorly trained and inadequate personnel add to the extreme hazard of this care of babies by strange people. Many of our large institutions have had epidemics of "infantile diarrhea" and more recently we are all threatened by the scourge of "hospital Staphylococcus infections."

It is likely that the near future will bring a number of changes in our obstetric practice. Prenatal care will probably continue as we know it, but with more emphasis upon the psychological aspects. Patients may be observed at home in early labor in the company of their own families and familiar surroundings. They may be admitted to labor and delivery stations where moderate sedation will be the rule, and most deliveries will be spontaneous. Following delivery, the mother and her baby will be transferred together to a recovery area where early ambulation and rooming-in will be practiced. After twelve to twenty-four hours, the patient and her baby will be returned home. The mother will care for her own child, and the only other personnel involved may be the physician. In complicated obstetric cases, the baby may still be discharged within twenty-four hours to the patient's or grandparents' home, and the mother will follow when her condition permits. As a result, the only babies who will remain in the hospital will be small premature or ill babies, and here we will have to marshal all of our forces in an effort to prevent infection.

The method of practice presented here is the best we have found, thus far. However, it would be difficult to prove statistically and other proof would take years of very careful study. It is likely that our morbidity and mortality figures are similar to those of other institutions. However, we are speaking of aspects of maternity care which do not easily lend themselves for statistical analysis. How can one measure such subtle differences in the effect upon family life, psychology of the mother and father, and fine disturbances in intellect or cerebral activity which might be created in the newborn by substitutes for physiology?

What are the results of employing all of these so-called principles of physiologic obstetrics? Certainly not the largest nor the most lucrative obstetric practice in Philadelphia, but rather a completely satisfying practice with minimal complications.

Acknowledgment

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THE PRICE OF FREEDOM

J. Duffy Hancock, M.D., warns that government intrusion in medicine is growing rather than subsiding. He suggests that voluntary prepayment plans must be constantly improved—guided—and protected from abuse. The doctor has arrived at a point most feared by the advocates of socialized medicine. He has criticized the theory of government control, found a plan to confound the opposition and has proved this plan to be workable.

He stresses the need for physicians to continue their efforts in shaping future developments in Blue Shield and in acting as spokesman for the program . . . "Blue Shield is your plan, Doctor, it is yours individually, and it is ours collectively. It is a co-operative effort sponsored by the medical profession to satisfy a public need and still retain in qualified hands the policy-making powers regulating medical practice. Where Blue Shield has entered the picture, nowhere have the rights of doctors been usurped. Nowhere has there been dictation as to how medicine is to be practiced. With Blue Shield, this need never be feared. The doctor not only has a voice in Blue Shield . . . the doctor *is* Blue Shield."

Restorative Physical Medicine and Rehabilitation in Hemiplegia

By Morton Hoberman, M.D.
New York, N. Y.

PATIENTS with hemiplegia present a large variety of disability, ranging from the insignificant to the most severe. This results not only from the many causes for hemiplegia, but also from the varying degree and location of lesions in the brain. Some lesions produce considerable initial disability which later decreases as cerebral shock and edema subside; others seem to become more severe with time.

Since it is not possible to restore brain tissue which has been destroyed, the restoration of which we speak is in the area of performance of functional activities—those necessary for personal care, social contact and communication, and, if possible, vocation (this includes the performances of household activities by men as well as women).

Success in the attainment of these goals of restoration of the hemiplegic patient is dependent on many factors. Some of these are: (1) Age at the time of onset of disability, (2) Etiology of disability, (3) Location and extent of lesion, (4) Premorbid personality of the individual and present motivation, (5) Concommitant diseases and their status, and (6) Treatment available to the patient.

The only item among these over which we have some degree of control is the last, the treatment offered to the patient. Before going into a discussion of a treatment program, let me say that there have been many theories proposed to explain the residual disability of the hemiplegic patient. With each theory there is usually a newly proposed method or system of treatment. There is no doubt that each theory and proposed therapy has some value for some individuals. However, no one theory can explain, nor one form of treatment benefit all hemiplegia disability because of the large variety of etiological and other factors previously mentioned. To cite but one perplexing item, destructive lesions confined entirely to area 4 are said to result in flaccid paralysis of the affected extremity. Spasticity presumably indicates that there is an additional lesion in areas 4S and/or 6.[4] However, we have seen patients who have had a complete hemispherectomy (for various reasons), who were neither very spastic, nor completely flaccid. Many more complex pathways and interactions will have to be unravelled before we can explain what it is that causes certain disabilities. Perhaps in some hemiplegic patients the reticular formation is involved so that total awareness of stimuli is disturbed or spinal reflexes are intensified.[3] It is also possible that factors, exogenous to the brain, also have a decided effect on which manifestations will result from cortical insult or damage. Travis and co-workers recently reported interesting results in a series of cortical ablation experiments. They were attempting to find out what effect the site, the extent, the size, and the combination of cortical lesions, experimentally produced in monkeys, had on the residual motor patterns, on righting and standing reflexes, and also on post-operative contractures. Their findings were that retention or return of motor patterns, and of righting and standing reflexes were less dependent upon the anatomical lesions than upon when and how much passive, active-assistive, and actively-induced motion (exercise) was carried out immediately postoperatively. Contractures were also decreased with immediate movement.[6] This would seem to be a direct confirmation of the clinical opinion many have held, that if the hemiplegia patient is to be restored to his maximal functional capacity, active treatment must begin as soon as he can tolerate it. In practically all patients, except those whose disability results from hemorrhage, this is immediately. Active treatment, at this stage, does not mean that the recently strickened patient is stood up and urged to walk (method used by Travis, et al). It does imply that any and all limbs and joints not volun-

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Dr. Hoberman is Associate Clinical Professor of Physical Medicine and Rehabilitation, College of Physicians and Surgeons, Columbia University, New York. He is also Chief Rehabilitation Services and Research, New York State Rehabilitation Hospital, West Haverstraw, New York.

tarily moved by the patient through a full range of motion, are so moved by someone else (nurse, therapist, member of the family) at least once every two to three hours. It implies that precautions are taken to properly place the limbs in anatomical position to prevent deformities such as contractures and subluxations. It implies that as soon as the patient can comprehend, and especially when he realizes he is paralyzed, he is assured that everything possible is and will be done to return him to a functioning level. The family can also be given this assurance and must be asked to avoid any display of hopelessness. Rash promises of complete return of functions are neither desirable nor necessary.

All too often in the past we have delayed the onset of an active treatment program for fear that another cerebral accident may occur, or we thought the patient was "too old" to benefit from treatment. To the best of my knowledge, early active treatment has not materially increased the incidence of second cerebral accidents. It has also been quite gratifying to learn how many of the so-called aged have a reasonable amount of endurance for moderate activity properly planned and spaced. The physician must take time to explain to the patient what has happened, what is being done, why it is being done, and what to expect. The patient is also told not once but repeatedly, that only motion begets motion; that immobility only begets contractures and self pity, the latter, a far greater obstacle to functional recovery than organic cortical destruction.

As soon as it is feasible, and this may be as early as the second or third day after onset of disability, the patient is propped up in bed particularly at mealtime. He is urged to do as much as possible for himself with the unaffected extremity, especially with regard to feeding and grooming. A sling may be used to support the affected upper extremity, and pillows or sand bags to properly position the lower extremity. If this is well tolerated, the patient can be placed in a comfortable armchair or wheelchair one or more times a day (again preferably just before mealtime). With proper instructions, the transfer from bed to chair can usually be accomplished by one individual. Here, again, the patient is also instructed and encouraged to assist by using the unaffected extremities. Should the patient show ability to stand and pivot on the sound lower extremity, the affected limb is splinted and the patient stood up for increasing periods daily. At about this time he should also sit at the edge of the bed to begin sitting balance without support. While sitting in the wheelchair or propped up in bed, he can be instructed in range of motion exercises for the affected upper extremity utilizing his sound extremity as the motor (both with and without a pulley system).

The specific movement or exercise therapy which is directed to the affected extremities varies considerably in different treatment centers. The vast majority of patients with hemiplegia develop spasticity of the affected extremities. What these individuals lack is not power (the strength necessary to move a part through a desired range of motion against certain resistance) but control (that is, the ability to initiate and stop motion at any point voluntarily). To attain this end, in some centers primitive gross movement patterns are used as the starting point;[2] others use pathological reflexes to initiate movement;[5] some reproduce the complex patterns of normal movement with the patient bringing power at whatever point it exists;[5] still others insist that certain parts be re-educated in certain positions (that is, sitting up, rather than supine or prone, for upper extremity re-education).[1] Practically every method uses tactile, kinesthetic, visual, and auditory cues as well as proprioceptive stimulation during the production of motion to increase patient awareness and understanding in an effort to control movement. Since some control in normal movement is frequently exerted by antagonists (by their braking action), one method of treatment initially minimized the use of power in those muscles which show spontaneous return, that is, the patient who has return of power in the quadriceps is "grounded" so that adequate re-education can be given to the hamstrings. Occasionally the nerve to the more powerful muscle is infiltrated with an anesthetic agent; less frequently this nerve is cut and resutured; all this in an effort to allow the paretic, weaker muscle to increase in power and control.[7]

No matter which method or combination of methods (there are others which have not been mentioned) is used, certain things are necessary if any degree of success is to be attained:

1. The patient must be able to understand what is being done and capable of motivation to produce maximal effort.

2. The patient must have some learning ability and demonstrate retention of newly learned material.

3. The motions and activities must be performed daily for gradually increasing periods (ordinary, semi-automatic motions have been lost, and in order to regain control of them they must be taught as one would a new skill to the normal individual. This requires daily practice if perfection is to be attained).

Psychometric testing is of definite value to determine whether or not the patient can understand the program of treatment, can learn new material and retain it, and is sufficiently motivated to embark on a long, difficult treatment program.

Other psychological problems may interfere with a successful physical program and it is best to be aware of them. Some of these are: (1) depression, (2) denial of disability, (3) denial or lack of awareness of the affected extremities, (4) intensification of pre-existing neuroses, and (5) hysterical overlay on existing anatomical pathology.

Not infrequently the patient with hemiplegia also has sensory disturbances which may interfere with successful physical restoration. These may include: (1) loss of tactile sensation, (2) pain of central origin, (3) loss of position sense, (4) loss of stereognosis, and (5) hemianopsia.

It is obvious that there may be many detours on the road of successful restoration of the hemiplegic patient to physical independence. Psychological and psychiatric problems may be serious enough to require the services of a psychiatrist or a clinical psychologist under the supervision of the psychiatrist. Speech problems can also impede progress in physical rehabilitation. We evaluate the speech and hearing of every hemiplegic patient, and give him as complete a battery of psychometric tests as is possible. We also see that all personnel who have anything to do with the patient's care and treatment (nurses, attendants, therapists) are aware of any sensory deficits that the patient has, so that they may be better guided in their contacts with him.

Probably the most frequent question the hemiplegic patient wants answered, is, "Will I be able to walk again?" (Except in patients who have aphasia—this is even more distressing to the patient than lack of mobility.) For the vast majority of patients, walking is a definite probability. Most patients will need a cane or Lofstrand crutch; some will need short leg braces to correct toe drop, and/or inversion or eversion of the forefoot; a few, who have flaccidity of the extremity, will need a long leg brace to give additional support at the hip and knee. Most of these patients can be taught to go up and down stairs with a handrail; many can be taught to ascend and descend ordinary curbs and small steps without a handrail, and a bus step with a handrail.

Despite the fact that ambulation is the primary concern of most patients (and their families), walking does not make the patient physically independent. To be considered independent, the patient must be able to wash, dress, groom and feed himself, as well as ambulate. Most hemiplegic patients can accomplish these activities with training, diligent practice, and the aid of adaptive equipment. The latter may include a large variety of items, such as, combination knife and fork, plate holder, food pusher, swivel spoon, electric shaver holder, button hooks, zippers for shoe closure, long shoe horn, dressing hooks especially for socks and panties, denture holder for cleansing, vegetable holders for cleaning and slicing, modified grocery hooks for reaching overhead or picking up items from the floor, and many others.

For the patient who is unable or too unsteady to learn to walk, wheelchair training is a necessity. Most patients in this category, prefer to propel the wheelchair with the sound arm and leg. A few prefer to use the one arm drive wheelchair. The patient who has difficulty coming to the standing position but can slide is usually supplied with a chair with removable arms. Bed height is an important item for this hemiplegic patient. The bed should be the same height as the wheelchair seat. We also test our patients to determine which household activities they can perform should it be necessary for them to live alone or take care of themselves for part of the day. Information such as this has prevented many a rehabilitated hemiplegic from spending the rest of her life in a county home, nursing home, or the like. In many instances such activities taught to the hemiplegic male patient has released his wife so that she could undertake employment outside the home.

There are a number of other areas which could be touched on in a discussion of the restoration of the patient with hemiplegia. Many of these deal with actual techniques of treatment and training. These, while important in their place and setting, are only of value if we can get across the concept that restoration of function is possible,

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Rupture of Normal Spleen in a Newborn Infant

By Charles H. Willison, M.D.
Midland, Michigan

RUPTURE of the spleen in the newborn infant is a very uncommon occurrence, if its actual incidence parallels the reports found in the literature. Indeed, the successful surgical treatment of this condition is even rarer, in that in the review of the available literature, I have been unable to find any cases reported of survival following a rupture of the normal spleen in the newborn infant. Because of the rarity of this condition, and because of the rapid and early institution of blood replacement therapy which is necessary to make the surgical attack even possible, it is thought that this case is worthy of reporting.

In previous reports in the literature it is apparent that the normal-sized spleen is well protected from injury in the newborn. Slotkowski and Hand,[1] and Philipsborn,[2] point out the relative rarity, but still a definite mortality due to rupture of an enlarged spleen associated with erythroblastosis fetalis. Scott and Bowman,[3] reviewing cases of splenic rupture in childhood, found none in newborn infants. Gruenwald,[4] in reporting on eight cases of rupture of liver and spleen in the newborn, found three cases of ruptured spleen, two of which were associated with a ruptured liver. These cases were found among autopsies on 121 infants who were stillborn or died during the first three days of life, indicating that this condition might be more frequent in its occurrence than one would assume from the literature.

Case Report

The mother of this infant, para II, gravida IV, ruptured her membranes in the physician's office where she was being checked for "false labor" on January 17, 1957. Examination at that time revealed the cervix to be dilated to 6 to 7 cm., and the patient was taken to the hospital immediately where she was delivered of a female infant weighing 8 pounds, 5 ounces thirty-three minutes after admission. The delivery was normal and spontaneous with a right occipitoanterior presentation; the anesthetic was heavy nupercaine saddle block.

The infant responded immediately upon delivery and no resuscitation efforts were used. She was admitted to the newborn nursery seventeen minutes following delivery. Initial examination by the infant's physician showed no abnormalities, and the cord blood sample taken at the time of delivery showed blood group A, Rh-positive and a direct Coombs-negative. For the next thirty-six hours, the infant seemed to follow a normal course, nursing normally with only an occasional small amount of regurgitation. Normal newborn stools were passed as follows: two on January 17, the day of delivery; four on January 18 and two on the morning of January 19. At noon on January 19, the infant appeared somewhat pale and a blood examination at that time showed Hbg. of 11.55 gm, WBC 29,400 with Stabs 5, Segs 76, Lymphs 19. The attending physician at that time reported that the bowel sounds were diminished. Two hours later, the infant suddenly showed signs of circulatory collapse. While the attending physician was setting up for, and doing, a cut-down on an ankle vein, the pediatric consultant rapidly intubated an umbilical vein for immediate intravenous therapy until the ankle cut-down was functioning. The infant was given 75 cc. whole blood while the operating room was being set up and another 75 cc. blood during the surgical procedure. Hemaglobin prior to the transfusion was 7.4 gm. Immediate surgical exploration was agreed upon with a preoperative diagnosis of intra-abdominal hemorrhage due to either ruptured liver or spleen. The anesthetic used was open drop ether. The abdomen was opened through a transverse upper abdominal incision from costal margin to costal margin and a hemoperitoneum under considerable pressure was present. An estimated 175 cc. of fluid and clotted blood was removed from the abdominal cavity. A large solid clot filled the left upper quadrant extending down to the left lower quadrant, and upon removal of this clot, active bleeding was evident from the hilar region of the spleen. A splenectomy was carried out, and it was noted that the phrenolienal ligament formed a heavy, firm posterior attachment of the spleen. Following splenectomy, careful abdominal exploration revealed that the remaining abdominal organs were entirely normal. The postoperative course was uneventful, a normal stool being passed on the second postoperative day and oral feedings being instituted on the third postoperative day. Sutures were removed on the ninth postoperative day, and the infant was discharged on the following day. Hemoglobin was 11.2 gm. on the first postoperative day and a platelet count on the seven postoperative day was 268,000. The infant was seen on a follow up visit, March 1, 1957, and examination revealed an entirely normal infant weighing 10 pounds, 2 ounces. The abdomen showed a well-healed scar with no evidence of

any weakness. Pathological examination of the spleen showed it weighed 12 gm. and revealed the presence of a capsular tear at the hilum. Microscopic sections revealed only normal splenic structure.

Discussion

This case has several interesting facets which appear worthy of mention:

1. The rapid teamwork between the attending physician and the pediatric consultant in instituting adequate replacement therapy, I believe, was responsible for resuscitating and maintaining this infant's condition so that the surgical attack was possible.

2. The fortuitous set of circumstances of only a small rupture with a delayed secondary hemorrhage at a time when a suspicious team was on hand led to the favorable outcome of this case. It would appear that the firm clot found at the time of surgery was the result of bleeding at the time of delivery and that the massive hemoperitoneum of the fluid blood was from the secondary hemorrhage which occurred shortly before the splenectomy was performed.

3. The heavy phrenolienal ligament, as described by Gruenwald,[4] appears to be the only explanation for the occurrence of the splenic rupture in this case.

4. The platelet count on the seventh postoperative day being in the normal range obviated the necessity of anticoagulant therapy. The interesting problem of postoperative intravascular thrombosis following splenectomy in childhood is well discussed by Gross and Ladd.[5]

Summary

1. A case of rupture of a normal spleen in the newborn infant with recovery following splenectomy is presented.

2. A brief review of the literature is made, and no previously reported cases of this successful outcome can be found.

3. The necessity of early diagnosis and the early and rapid institution of blood replacement therapy is emphasized.

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122 Townsend Street

RESTORATIVE PHYSICAL MEDICINE AND REHABILITATION IN HEMIPLEGIA

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that it is desirable in so far as the community is concerned, and that it is cherished by the hemiplegic patient when attained.

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Congenital Atresia, Complete, Osseous, Bilateral, of the Posterior Nares in the Infant

By Walter Z. Rundles, M.D.

Flint, Michigan

MANY ARTICLES have appeared in the literature on this subject; in fact, about 300 cases have been reported since 1829.

The embryology, pathology, various techniques of operative procedure have been well discussed by Beinfield,[4-9] Hanckel,[11] Baker,[3] and others. Reference to the bibliography at the end of this report shows many other contributors.

From review of the literature, the patient in the following report is the youngest on record.

Case Report

The writer was called to McLaren General Hospital on September 6, 1956, to see an infant thirty-six hours old. The condition had already been properly diagnosed by the obstetrician, Dr. John Wentworth. A chest surgeon had examined the baby and advised "watchful waiting," and an otolaryngologist advised tracheotomy immediately. The problem presented itself as follows: An infant, thirty-six hours old, cyanotic, anoxic, rapid breathing; cause—total bilateral atresia of the posterior nares. One could rightfully conclude that here was an emergency and that something must be done as quickly as possible. Certainly, operations outlined in the literature—transpalatine, submucous approach through the nose, were not applicable on a baby whose head was about as large as a grapefruit and a nares about the size of a grapefruit seed. Tracheotomy was advocated but this was not a breathing problem; the airway was adequate. My reasoning was as follows: Many times I have placed a pack into the nasopharynx to control nasal bleeding. Everyone of these patients has asked, "When can the pack be removed because I can't swallow." Our physiology textbooks elucidate on the functions of the nose, but none states emphatically that our Maker put a nose on us so that we can swallow. When food leaves our throat and drops into the esophagus, air must partially displace the food. With total occlusion of the nares, no air is available and swallowing is most difficult. Then, too, tracheotomy doesn't help; in fact, it is a very dangerous procedure in the newborn infant, as the formula passes down along the tracheotomy tube into the lung where it causes pneumonia and death. When the postmortem examination is made, the cause is not found because the pathologist does not do an examination of the nose. Many of these infants are found dead in the crib and not diagnosed at all, as stated by Beinfield and others.

With this in mind, ¼ per cent neosynephrine and 5 per cent cocaine were instilled into each nostril on a cotton pledget. Under this "local" anesthesia in the nursery, with the help of one of the nurses, a curved 7½ inch hemostat (Kelly) was placed on the floor of the nose, the obstruction met, and ruptured on each side. There was a fair amount of resistance, and the instrument was partially opened and rotated, enlarging the opening. Bleeding was only minimal. Following this, every two hours, ¼ per cent neosynephrine and 30 per cent sodium sulfacetamide in equal parts were used as nose drops.

At 2:30 p.m., about four hours after this procedure, the baby was taken to the mother for breast feeding. The nurses' notes follow: "Color is pink and breathing regular. Baby taken to breast and nursed eagerly. Cries very little." Notes were the same at 5:00 p.m. and 9:00 p.m. the same day.

It was necessary to dilate the passages twice during the hospital stay of twenty-five days.

The birth weight of the baby was 6 pounds, 11 ounces. Today, six months later, the drops have been dispensed with, the baby weighs 14 pounds, and the airway seems adequate.

The family history of the mother and father is negative. Many of these cases reported show polydactylism, coloboma of the iris, cleft lip, cleft palate, and other defects. However, this baby had no other abnormality. The father and mother are in their early twenties, and this is their first baby.

This report was given at a staff meeting at McLaren General Hospital and also at St. Joseph's Hospital, Flint, Michigan.

Summary

Choanal atresia total, surely is an emergency problem. Until something can be done, an airway should be placed into the mouth and pharynx as the first step. I do not believe a tracheotomy should be done; it is only a gesture to do something and a dangerous procedure in an infant. Recently, I saw a child nine months of age with a tracheotomy tube *in situ,* still with the choanal total obstruction, postponed until a later date. In the meantime, the atresia is becoming more dense and ossified.

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Services for Disabled Adults Available through Office of Vocational Rehabilitation

By C. Arthur Hakenen, M.A.
Lansing, Michigan

THE OFFICE OF VOCATIONAL REHABILITATION has two responsibilities with respect to disabled citizens of employable age: to provide vocational rehabilitation services that will help the disabled worker prepare for suitable employment (a program that began in 1921) and to determine eligibility for Social Security disability insurance benefits under contract with the Bureau of Old-Age and Survivors Insurance, which began in 1955. The two services will be described separately since the first represents the service approach and the second the insurance approach, with different eligibility requirements.

Vocational Rehabilitation Services

Vocational rehabilitation is a public service for disabled citizens. Its objective is the restoration to working usefulness of any vocationally handicapped adult. Vocational rehabilitation recognizes the fact that aside from the limitations of his disability the range in work capacity of the disabled is the same as for the general population. Rehabilitation helps the handicapped person determine the work best suited to his particular abilities, provides the services which will correct or reduce his disability in the labor market and assists him into suitable employment. These services are provided in Michigan through nine district offices.

Disabled citizens are eligible if they have a substantial disability which is a vocational handicap. The disability should be relatively stable and permanent, and thus acute temporary conditions are not considered. The law places on the states the responsibility for determining eligibility, which requires evaluation of medical and nonmedical factors. Medical diagnosis includes complete general examination, and consultative examinations, as indicated.

Where the examining physician indicates that the disability may be removed or reduced, various medical services can be provided, including the following: medical treatment, surgery, hospitalization, physiotherapy and occupational therapy, and prosthetic appliances. Medical services are arranged on the advice of the district medical consultant, a local physician who serves on a part-time basis. Other services include vocational counseling, psychological testing, vocational training, and help with job placement through co-operation with other agencies. Medical care and several other services are provided on the basis of financial need. The services are purchased from existing local and state facilities and private physicians.

Successful rehabilitation into suitable employment requires a teamwork approach—motivation and active participation of the disabled person, the services of the physician and the community so that work capacity can be restored to the fullest extent possible, and acceptance by the community, so that the disabled person is given an opportunity to work and be a useful member of society. In a very real sense, rehabilitation is everybody's business.

Social Security Disability Insurance Benefits

For the past two decades the Social Security law has provided old age and survivor's insurance benefits. As a result of the amendments of 1954 and 1956, however, there is now protection against a third risk—the risk of being unable to work because of severe disability. Congress specified that the Office of Vocational Rehabilitation should make the determination of eligibility for Social Security benefits, to emphasize the rehabilitation approach, so that wherever possible the applicant could be restored to employment through rehabilitation services. Referrals to Vocational Rehabilitation, therefore, are made on all applicants. The State Vocational Rehabilitation agency and Social Security operate as a team in processing applications.

Read at the Third Postgraduate Seminar in Physical Medicine and Rehabilitation, Bay City, Michigan, October 9, 1957.

Mr. Hakenen is supervisor of the Disability Section Office of Vocational Rehabilitation, Lansing, Michigan.

The disability provision of the law can be met only if the disability is so severe that the applicant cannot engage in any substantial work and the disability is expected to continue indefinitely—the law specifies not less than six months, so that temporary and partial impairments are not eligible. Eligibility requirements are far more severe than for vocational rehabilitation and are comparable to "Aid to the Disabled" in public assistance, which is administered through the Bureau of Social Aid. The criteria for the severity of disability were established by Social Security itself, with the help of a National Advisory Committee of physicians which meets periodically. These criteria are intended to assure equal treatment to all applicants on a nationwide basis. There must also be five years of work in the ten years before onset of disability, and one and one-half years of work in the three years before onset date, in work covered by Social Security. This work requirement does not, however, apply to disabled child benefits.

Disability benefits at age fifty and over.—An applicant between fifty and sixty-five years of age may begin drawing cash benefits if he meets the requirements of the law.

Disabled child benefits.—If the parent is drawing Social Security benefits and has a dependent unmarried disabled child past age eighteen, disability benefits can be paid for the child if the disability began prior to age eighteen and continues to prevent any gainful work.

The disability freeze.—If the applicant is under age fifty and is found eligible his earnings record can be "frozen" so that future Social Security benefits will not be reduced by the period of disability.

Applications for all three types of disability benefits are made at the local Social Security office. The applicant must supply his own medical evidence. When the file is ready, the application is mailed to the Vocational Rehabilitation Disability Determination Section for evaluation. If additional medical evidence is needed, it is secured by the VR review team, which includes two physicians. The physician submitting the medical data is not required to determine eligibility for benefits; he is asked to give diagnosis and supporting findings, so that another physician reviewing the medical reports will arrive at the same diagnosis. Consultative examinations are arranged where the evidence is incomplete or conflicting. Payment for such examinations is made in accordance with the the Michigan Uniform Fee Schedule for Governmental Agencies, which is published by the State Medical Society. Eligibility for benefits is a team decision, based on medical and non-medical factors. The file is then sent to the national Social Security office in Baltimore for final review. The Baltimore office also notifies the applicant regarding the decision made. After benefits are granted, there are periodic reviews to determine whether disability continues, or whether work capacity has been restored.

CONGENITAL ATRESIA

(Continued from Page 1295)

About twenty years ago, I operated on a left side bony atresia by the same technique but the patient was twenty years of age, presenting of course an easy problem in comparison.

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500 Grand Traverse Street
Flint, Michigan

Termination of the Treponema Pallidum Immobilization Diagnostic Service

By A. H. Wheeler, Dr. P.H.
Ann Arbor, Michigan

APPROXIMATELY four years ago, a short article[1] describing the Treponema Pallidum Immobilization (TPI) test which appeared in this journal announced that TPI diagnostic service was available in the Department of Dermatology, at the University of Michigan Hospital. Since that time approximately 3,000 TPI tests have been performed on STS positive specimens submitted from throughout the nation, of which number 2,250 or approximately 75 per cent were requested by physicians or institutions located in Michigan. Roughly forty to fifty per cent of the TPI results were negative in this group of highly selected patients, thus contributing substantially to the extremely difficult but important differentiation between Biologic False Positive (BFP) and truly positive syphilitic reactions. In most instances, the results of these tests were not only clinically significant but they also were important in the subsequent socio-economic and psychological problems of the patients. A large number of specimens were submitted following routine blood tests for pre-marital, pre-natal, food handler and employment purposes. In these situations the socio-economic and emotional benefits of the negative TPI test are obvious. However, one note of warning is necessary in these cases; namely, that persistent BFP reactions may suggest the pre-clinical stages of potentially serious medical disorders and that such patients should be checked periodically for the development of lupus erythematosus, rheumatoid arthritis and other collagen diseases.

On the other hand, while the positive TPI reports were of serious social, economic or psychological significance, they were even more important clinically because many of the patients had been diagnosed and discharged previously as BFP reactors. In some instances the positive STS which prompted the request for a TPI test was the first blood test that the patient had ever had and also the first suggestion of probable latent syphilis. It is obvious that in spite of any adverse non-clinical factors, the correct diagnosis and treatment of previously untreated TPI positive reactors were important to the health of the patient, his family and the general public.

Although the TPI test has been a valuable clinical aid it has not been routinely available because of the high cost of performance and technical complexities which limited its use to less than a dozen research laboratories in this country. One of the more practical results of these research uses has been the development of simpler and presumably less expensive modified treponemal tests for syphilis. These procedures which employ complement-fixation, agglutination and staining methods have been evaluated during the past year by eight laboratories in co-operation with USPHS. The final results of this national evaluation are not yet available but results from our own laboratory strongly suggest that a complement-fixation test employing extracts of the Reiter treponeme as antigen may be the most practical specific method available at this time for the routine laboratory diagnosis of syphilis.

In view of the limiting factors associated with the TPI test and the early promise of the Reiter Treponeme Complement-Fixation (RPCF) test, the TPI diagnostic service formerly available in this department has been discontinued. Preliminary investigations are in progress to determine the advisability of incorporating the RPCF test into the overall diagnostic program of the University Hospital. It is hoped that this test, or possibly one of the other specific treponemal tests, will be available soon. In the meantime, TPI tests may be obtained without charge through state departments of health laboratories in co-operation with the Venereal Disease Research Laboratory of the Public Health Service.

(Continued on Page 1312)

From the Department of Dermatology and Syphilology, University Hospital, Ann Arbor, Michigan (A. C. Curtis, Chairman).

President's Message



Facts About MSMS

The end of my term in office brings to the surface a whirling melee of thoughts, emotions and facts. Here are some of them:

MSMS is big business—over a half-million dollars a year.
MSMS decisions direct the spending of a half-billion dollars annually.
MSMS policies affect the health of 8,000,000 people in Michigan.
MSMS has liaison with over a hundred different health organizations in Michigan.
MSMS today influences tomorrow's practice of medicine.
MSMS keeps in touch with over 6,000 members, 55 county medical societies, 18 councilor districts.
MSMS produces a monthly journal averaging 155 pages.
MSMS employs 23 persons, buys additional services involving scores of other persons.
MSMS produces films, TV and radio broadcasts, pamphlets, brochures, etc.
MSMS serves the government in administration, legislation, public affairs.
MSMS owns property, pays taxes, buys equipment, sells services.
MSMS speaks nationally for Michigan Medicine, contributes advice and service to American Medicine.
MSMS annually provides thousands of medical facts to thousands of people in hundreds of meetings.
MSMS prides itself that no member has ever been refused his "day in court"—an opportunity to be heard, regardless of the subject.

Looking at these things, only in thumbnail, is astounding to me—even though, from my vantage point, I have had the opportunity to see the complicated and elaborate organizational machinery at work for years.

It makes me humble when I realize the service that is being rendered so thoughtfully and freely by the members of the House of Delegates, The Council and our devoted staff of employees.

It makes me glad because this work is being done in the interest of the public, for the medical profession and in behalf of every doctor of medicine.

My thanks are yours for permitting me the privilege of serving as President of the Michigan State Medical Society.

Geo. K. Slagle.

President, Michigan State Medical Society

Editorial

BIG WAYNE

This is the issue of The Journal of the Michigan State Medical Society honoring Wayne County. Wayne County is big, in a big state. It is big in size and in population so that Detroit, its gargantuan center, spills out into the county, filling the suburbs and invading the surrounding counties like the roots of a tree.

So demanding are the needs of this new, peculiarly 20th Century development that a central authority is demanded adequately to serve the police, fire, water, drainage and other needs of this huge sprawling metropolitan area. And in line with this recurrent demand there springs to the mind instinctively and without effort the thought of a new metropolitan tri-county medical society with the center of its activities in the spanking new, gorgeous, efficient and not inexpensive quarters which house the Wayne County Medical Society.

Wayne County is big with the heady successes of unprecedented building booms and the promise of the impetus which its metropolis becoming a world seaport can impart. Detroit is late in developing its water front, but the development and the vast system of highways extending from it out into the surrounding county are coming at a time when they will dovetail nicely with the hoped-for development of the port facilities, providing the realization of these facilities prove not to be illusory.

Wayne County is big with big business and all the social injustices of which big business has been accused.

It is big with big unions and all the follies of over-correction of social injustices of which unions are inherently capable. From Wayne County come reports of the bewildered unbelief of unions, attempting to bargain the services of members in an unexpected atmosphere of recession. The recession was not unexpected; but to big unions, eternally demanding more in the outmoded manner of professional purveyors of social security at the expense of others, it seemed impossible that the wheels of fortune should not always turn in response to the demands of him who, having always called the turn, expected always to call it.

Wayne County is big with all that constitutes living, working, fighting, thinking and conniving human beings. Big crime, big charity, big loves, hates, successes and failures—these are Wayne County as, in smaller degree, they are your county.

Wayne County's traffic increases year by year. Its traffic deaths increase also. Wayne County shows an estimated increased population of approximately 400,000 or more per decade. In Detroit, business failures are nearly 200 yearly; the Welfare load was 5,000 in March, 1957. This doubled a year later.

But Wayne County subscribes to a stupendous community fund of 16.5 million annually.

Wayne County shelters the brand new Wayne State University and its current 19,090 students. Its Medical School has just expanded to accommodate an unprecedented 125 new students per year. Most of these remain to serve Michigan communities.

The Wayne County Medical Society is big as County Societies go, but never has Wayne County united to make its weight felt in State Society affairs in this writer's memory.

Wayne County may be calculated to contribute its share of obfuscation to the deliberations and its share of stress to the adjustments initiated by the advancement of the new M-75 Blue Shield policies; but eventually we can hope that this great County which saw so much of the ground-work done in establishing the principles which make up Blue Shield, will adhere to principles and reject self interest. Wayne County will subscribe to service, paid for according to circumstances, because this is a time-honored tradition in medicine and the original basis for Blue Shield to which we are glad to see it return.

Wayne County will be the testing ground upon which will be tried the acceptance of privately offered as against union offered prepaid medical care service plans and in this trial will be seen the outlines of the developments of the future; in Wayne County we have no illusions as to the ultimate aims of unions: these professional, paid guardians of the social welfare of their constituents.

Miopic in their apparent failure to perceive that

big government and big unions do not coexist, the air of Wayne County is polluted by the nauseatingly insinuating tones of union spokesmen putting out a stream of rabble-rousing drivel blaming the modern bogey-men, the National Association of Manufacturers and the American Medical Association for all the ills which they can but partially understand, but can always magnify for the purpose of pounding away at the main theme which is free this, free that, more pay, more leisure, State Medicine. Running close to the edge of pure libel, we hear the A.M.A. blamed for controlling the price of drugs, for controlling the outrageous prices of doctors; Blue Cross has been blasted for over utilization and the rising costs of hospitalization; Blue Shield has been blamed for insufficient protection against supplementary payments to physicians.

And all this comes from Wayne County—the seat of those who these past two decades have asked for more and more because their rocket must continue to soar lest it fall back to earth. And from Wayne County must come the sinew and fiber to withstand the onslaughts, both fair and foul, and they can easily be made foul, which can be expected against the bulwarks of private medicine.

It is inconceivable that this bastion can be held except with the strength of that which is right and good in the name of service and selflessness. Who wins the lists in Wayne County will have these on his side.

Wayne County is big with big education and big hospitals with all the confusion which the present trend in medical education entails. In the name of patient care we scramble desperately for house staffs and then plan educational programs which divorce these staffs from direct responsibility for patient care. Interns virtually punch clocks to record their eight-hour day and visiting men see their patients at night to catch up on their private work.

Group practice grows space in much of the country. This manifestation of progress lags in Wayne County; but scarcely noticed in the scheme is the development of diagnostic clinics by hospitals.

A State Committee was appointed to study this "problem" about three years ago. It met once, reported inadequately and did not meet the second year. Yet note this prognostication to be found in a pamphlet issued by the AMA:

> "Many hospitals, especially those with closed staffs, will establish their own clinics and will be in competition with group clinics owned and controlled by private physicians.
>
> "Labor unions will increase their demands for more medical care as fringe benefits, and there will be an increasing tendency for unions to establish their own clinics and health services, with the employment of full time physicians and surgeons."

These things we call to your attention. The pot boils and it boils especially actively in Wayne County. The results of this brew will be tasted by all of us who deal with the health of the people of our State. Let us fashion our behavior to the needs of the people and our plans to the expectations of the future.

L. J. Bailey, M.D.

WAYNE'S PERSONAL-FAMILY PHYSICIAN PLAN

It is the duty of the medical profession to foster the personal and family physician concept.

From ancient times, the practice of medicine has been conducted on a personal basis because most families and a greater number of individuals felt the need for a personal physician and medical adviser. Patients consulted this doctor first on nearly all occasions even though they might be referred to another physician for particular procedures. The circumstances have not changed.

Those patients with a personal physician have a greater sense of health security which is something quite necessary in this day and age of co-operative specialism. In addition, when they are faced with a medical emergency, they do not have to subject themselves to a complete or partial stranger who knows nothing of their medical background.

The advent of group practice has not changed this basic concept for us to any appreciable degree, since the physician first consulted acts as the personal physician. All subsequent consultations and referrals are on a personal and individual basis. If there is an advantage in group practice, it lies in the ready accessibility of such consultants and those to whom referrals might be made. One member of the team, however, should assume the responsibility of acting as the personal physician.

The so-called clinic, be it public or private, charity or pay, offers a less personal relationship to patients. Such offices usually remain open the

greater part of the day and may require the services of several physicians. A number of patients may come in contact with different physicians on their visits. This may serve quite well for a practice devoted to industrial medicine and surgery. It does not develop the close relationship, however, so often deemed desirable by a great many private patients unless each patient has an assigned physician.

When a patient consults his physician, it usually is a personal and often is a private matter. He should have the privilege of its being personal and private. Illness is personal and the physician who knows the patient, his family and the social matrix in which he lives, is in a better position to understand the whole man, his illness and his problems than the physician who might see him once. Patient relationships should be on a basis of mutual respect, trust and truth. This takes time, good intention and perhaps several visits to be established. It can be done to the best advantage by one physician who thereby becomes the personal physician.

A family physician is one who is a counselor to all members of a family. This is an ideal situation and one to be recommended highly. A physician's knowledge of other members of the family is extremely useful in caring for and advising an individual. Thus whenever it is possible the personal physician should be the family physician.

Thus it is that here in Wayne County, as must be true in all areas of high industrialization, we have often seen patients suffer, particularly in an emergency, for lack of acquaintance with a kindly medical advisor. Today's intense specialization contributes its part; a constantly shifting population adds to the difficulties.

So also here in Wayne County we hope to find a means by which the medical society will be able to keep alive a realization well known to most of you in all the outlying counties, that the physician who knows his family serves it best.

This is no mean task which Wayne County initiated tentatively last year and which it will carry forward by all means found to be effective. We should like to introduce ourselves to all newcomers in the community via some such service as is afforded by the Welcome Wagon; but it seems impossible for a medical society properly to be of itself a contractual member of this organization.

You who serve in small counties have no problem, but in Wayne the idea of direct appeal to institutions, to specialists, to permanent or temporary clinics is readily adopted especially by strangers who suddenly find themselves faced with a medical problem, yet alone in the well known isolation provided by a crowd.

Wayne's "Family Physician Plan" is designed to keep the availability of the personal physician constantly before the attention of the large numbers of people who need him.

Clarence I. Owen, M.D.
Charles Sellers, M.D.

THE NATIONAL FOUNDATION

Tuesday, July 22, the National Foundation for Infantile Paralysis organized a closed circuit TV demonstration aimed at fifty-two cities in the United States for an announcement by Mr. Basil O'Connor, President, and his staff who gave a ninety-minute presentation. Since polio is now under control (at least the technique is available to whoever wishes), the National Foundation for Infantile Paralysis is casting about for new fields to explore and new popular appeals to support and advocate.

Surveys have been made to determine the most profitable or necessary appeal. In order to remove limitations and open the field widely, the name was changed. It is now "The National Foundation." Beginning next January, the Foundation will raise money for work against arthritis, birth defects, virus diseases and diseases of the central nervous system. The goal of next January's drive, instead of the 35 million dollars raised in 1958, will be 60 million dollars. The war on polio will be continued until every American has been vaccinated and there will be no more victims. Present victims will receive attention as in the past. There was a little question about including the National Arthritis and Rheumatism Foundation. Floyd B. Odlum, National Chairman, sent a letter and appeared on the program. However, it was announced that many of the state chapters were not content to be absorbed into the new all-inclusive National Foundation.

Mr. O'Connor and his panel promised that one of the most important functions would be care and attention when and where needed for any of these crippling, deforming conditions. He promised basic research work in any field with sufficient

attraction and appeal; also education, classes and schools will be established with scholarships and grants-in-aid.

The National Neurological Research Foundation has released a report of the total money raised by the major voluntary health agencies in the year 1956 (the last available)—$116,788,220 was raised, of which $20,908,043 was allocated for research. Some of these reports are very intriguing:

	Raised	*Research*
American Cancer Society	$27,234,612	$7,735,537
Daman Runyan	984,743	1,600,033
American Heart Association	17,755,912	6,100,000 (not final)
Nat'l Ass'n Mental Health	694,054	538,865
Arthritis and Rheumatism	2,449,396	467,521
Cerebral Palsy	8,315,000	538,865
Multiple Sclerosis	2,097,605	270,905
Muscular Dystrophy	4,191,109	1,405,415
Nat'l Council to Combat Blindness	257,915	127,954
Nat'l Soc. for Prevention of Blindness	255,902	47,667
American Foundation for the Blind	666,973	none
Nat'l Foundation for Infantile Paralysis	51,971,000	3,069,239

This announcement of the "National Foundation" raises some very important questions. Mr. O'Connor, throughout his activity in this fund-raising program, has consistently refused to join with any other organization in a united effort to raise money, such as the Red Feather, the United Funds, Community Chests, which have had success in the United States and in the State of Michigan. The National Arthritis and Rheumatism Foundation, which Mr. O'Connor hoped to absorb, is a Torch Drive or United Fund organization. Many of the other organizations with medical programs which might interest him are also Torch Drive, United Fund or Red Feather members. What will be the outcome? Will his new Foundation accept membership in the United one-campaign groups—or does he hope to absorb all the medical organizations and make his a one-campaign organization—meeting the needs of all of these great appeals to human sympathy?

Among those appearing with Mr. O'Connor were Raymond H. Barrows, the new Executive Vice-President; Thomas M. Rivers, M.D., associated with the organization since its inception: William S. Clark, M.D., formerly of Western Reserve University doing research on arthritis; Gilbert Dalldorf, M.D., virus research; Catherine Worthingham, Ph.D., Director of Public Education, Physical Therapy; Melvin A. Glasser; Dr. Jonas Salk and Mrs. Eleanor Roosevelt. The projected plan depends upon development of an organized voluntary force in the fields of medical research, patient aid, and profession education, "flexible enough to meet new health problems as they arise."

OBSTRUCTIONISTS?

Letters have been circulated—how extensively we do not know—accusing the Michigan State Medical Society of taking "undue action to sell insurance" and accusing the Editor of bias. This comes from a group who are dissatisfied with the relative value status of the charges they have been making to patients as compared to those made by surgeons. We can appreciate the feeling of frustration, and we hereby offer some explanation,

This feeling of being the underdog and looking up to the surgeon as being a person apart who naturally gets fees much out of proportion, is not new. In the English system, the surgeon was always called "mister" and was a man apart from the regular practice of medicine. In early American days, the man who dared to do major surgery was able to and did charge fees out of proportion with other practitioners.

Some doctors now practicing remember the day when 50 cents or 75 cents was paid for an office call, or $1.00, if medicines were given. At that same time, the bold souls who did appendectomies received $100. This differential was great, and throughout the years has been gradually corrected to some degree. A change of 200 to 1, to approximately 15 to 1, is still inadequate—but is progress.

Improvement was brought about very largely through general practitioners and the non-surgical specialties appreciating the value of their own work and selling that increased value to their patients by charging more for their services. The disproportion is still too much, but it is not the responsibility of the Blue Shield program; it is the responsibility of the profession *in toto*. The way to correct any disproportion is to take advantage of every opportunity presented and convince the public that these services have a better value than those in the past.

Although two-thirds of the doctors in Michigan have signed participation agreements, there are a few groups made up of special interest persons who are still not convinced. When an oppor-

tunity is given to make explanations and show progress, the majority are accepting the new situation and are working with it.

Most of the specialty groups, which have been in conference with the State Medical Society in an effort to set up equitable fees, are satisfied. They were organized to improve the quality of services they give their people, and are participating.

The economic aspect of the practice of medicine must take a prominent role. In the 1920's several county societies made arrangements with their welfare groups agreeing to care for all indigent (at least those hospitalized) for an agreed amount to be paid the county society. The members promised to do the work and the county society would benefit. Two or three counties are still continuing this arrangement and have very impressive and respectable programs as a result.

In Calhoun County—especially in Battle Creek—an Academy of Medicine and Dentistry was organized which made an agreement with the city commission to care for all the indigent—hospitalized or not—at the exact amount the governmental group had been paying on the average in the preceding three years. For years that program was carried out. It was learned that the county was actually paying for this service a ridiculous 8 cents on the dollar. Negotiations were under way to effect better contracts for the whole group, but a few of the doctors stymied the deal by making private arrangements. The group then turned its attention to studies which ultimately developed into the Michigan Blue Shield. This date was from 1932 and onward. At the same time several other counties made similar arangements to care for the indigent through their "Academy."

The reason for this reminiscing? Working in a group instead of independently, much more is accomplished, many more advantages are received, and the general good feeling is soul satisfying. It would be very unusual if all the 6,000 members of the Michigan State Medical Society were completely in accord with the program of medical service to our patients. Guaranteeing the pay for these services should be completely accepted as a basic non-scientific responsibility of the profession.

Discrepancies have been minimized as much as possible in one "fell swoop." The relative value schedule which Michigan is using is adapted from that in California whose State Society could not write one but wrote four relative value schedules. That great society recognized the inequalities in the various groups—the laboratory workers, the surgeon, general practitioner, radiologist, and established four relative value schedules.

In Michigan, we are attempting to reduce "inequality" in the new program which is being offered to the people. In the "M75" contract are included methods and procedures by which future inequalities can and will be equalized gradually whenever demonstrated to be definitely out of line. A medical care insurance committee is being established in each Councillor District to hear complaints or appeals. To an unbiased observer it would seem more valuable to work with a group which contains its own correcting features, than to oppose the very proposal which promises to preserve and retain the private practice of medicine as it did nearly 20 years ago.

MEDICINE'S SHIELD OF SECURITY

What are the prospects for the independent, private practice of medicine in the United States?

Any realistic attempt to answer this question must take account of many factors, some of them ominous indeed. In a letter to the Editor of the *New England Journal of Medicine* for April 3, 1958, Charles H. Bradford, M.D., a Boston physician assesses the medical profession's basic socio-economic problems in clear and candid terms.

"On one side," he points out, "we find ourselves threatened by state and federal programs, already operating on a large scale and eagerly seeking further enlargement. On the other side, we contemplate the ugly possibility of domination by pressure groups. . . . In front of us we face the inescapable and insurmountable wall of rising costs, in which doctors' fees play only an insignificant part as compared to the staggering costs of hospitalization. Behind us we hear the hue and cry of an increasingly hostile public opinion, unleased and led on by demagogues who clamor for the priceless gifts of life and health at bargain rates and at the taxpayers' expense. . . ."

To give us arms against this sea of troubles, Dr. Bradford points to Blue Shield, "one of the few constructive forward steps taken by the medical profession in the last twenty years . . ." which, he believe "may represent one of our few hopes for survival as a self-determining profession."

Blue Shield, the doctor asserts, has fulfilled its orig-

(Continued on Page 1306)

Michigan State Medical Society

Mid-Summer Session of the Council

HIGHLIGHTS

July 17-18, 1958

- Matters of great moment to the Michigan State Medical Society membership and to the future of the organization were decided by The Council at its July meeting. Chief among the 117 matters given consideration by The Council were:

 (1) Purchase of Site for the new MSMS Headquarters Building in East Lansing, on Saginaw Street (M-78) and Abbott Road.

 (2) Preliminary plans for the new MSMS Headquarters Building were presented by Architects Yamasaki, Leinweber and Associates, approved by The Council and recommended to the 1958 House of Delegates. Thanks were extended to the Committee on "Big Look" for the excellence of its work.

 (3) Report on successful culmination of Seal of Assurance Plan which indicated that 64% of the Active and Life members of MSMS had agreed to participate with twenty-six component societies participating 100 per cent; thirty-nine societies with more than 80 per cent participation; and fifty-one (of the fifty-five component societies) having 50 per cent or more participation.

 (4) Appointment of Councilor District Medical Care Insurance Committees in all the 18 Councilor Districts of MSMS to implement on the local level the Statement of Principles on Prepaid Medical Care Plans, as adopted by the 1957 MSMS House of Delegates.

 (5) The Annual Report of The Council was approved for reference to the House of Delegates on September 28, in Detroit.

- President Elect G. B. Saltonstall, M.D., announced the personnel of the 1958-59 MSMS Committees.

- Annual Session dates for 1961-1963 in Grand Rapids were decided: week of September 24, 1961, and week of September 22, 1963.
 The Michigan Clinical Institute dates for 1961-1962 in Detroit were set: week of February 28, 1961, and week of February 27, 1962.

- Legal Counsel Lester P. Dodd's report included two matters: (a) negotiations with East Lansing Township Zoning Board re new MSMS Site, (b) opinion on a financial plan designed to gain Jenkins-Keogh results for individual practitioners.

- Committee Reports.—The following reports were presented: (1) Medical Care Insurance Committee, meeting of July 16-17, (2) Child Welfare Committee, June 12, (3) Maternal Health Committee, June 12, (4) National Defense Committee, July 9, (5) Liaison Study Committee on Hospital Staff Payments, July 10, (6) Committee to Develop Alcoholism Program, July 10, (7) Big Look Committee, July 12, (8) Committee on Committees, July 17.

- Congratulations to Joseph G. Molner, M.D., Health Commissioner of Detroit, on his additional appointment as Wayne County Health Commissioner, were ordered dispatched.

- Annual joint meetings of the MSMS Council were held with (a) Michigan Hospital Association Board; (b) Michigan Crippled Children Commission; (c) Michigan Health Council.
- The Publication Committee allocated Journal Numbers to specific subjects for the second six months of 1959; recommended use of material on the lighter side of medicine in JMSMS; approved serial on "History of Michigan Blue Shield" in The Journal.
- The County Societies Committee nominated for the 1958 Michigan Foremost Family Physician Award: William P. Bope, M.D., of Van Buren County; Fred J. Drolett, M.D., of Ingham County; and Lewis K. Peck, M.D., of Mecosta-Osceola-Lake County. It also recommended that the new IBM History Card of State Society members be included as part of all component societies' applications for membership for all NEW members.
- Richard W. Pomeroy, M.D., of Lansing was chosen as MSMS nominee to the President's Committee for the Employment of the Physically Handicapped.
- A Committee on Diabetes, as part of the Preventive Medicine Committee, was created by The Council.
- The Public Relations Counsel's report included: (a) progress of Michigan Association of the Professions (medicine, dentistry, law, engineering and architecture); (b) MSMS exhibits at the Ionia, Saginaw and Michigan State Fairs; (c) Station WWJ-TV will be utilized for the live telecast of a surgical operation the evening of March 9, 1959, preceding the Michigan Clinical Institute—five out-state stations will carry the program; (d) Annual Session publicity plans; (e) 46 Michigan radio stations are carrying various programs distributed by MSMS and co-sponsored by component societies.
- Michigan Health Commissioner A. E. Heustis, M.D., presented progress report on: (1) poliomyelitis cases; (2) staphylococcal and other hospital infections; (3) laboratory examination of specimens for staphylococci; (3) policy concerning use of state-supplied immune globulin; (4) normal serum albumin; (5) registration of sources of radiation; (6) progress report on nursing homes and homes for the aged; (7) research into causes of mental illness; (8) report on uncorrectable visual defects; (9) yellow fever vaccine.

MEDICINE'S SHIELD OF SECURITY

(Continued from Page 1304)

inal purpose, namely, "to convert a system of postponed payment . . . into a streamlined system of prepayment . . ." to the benefit of both the people and the profession. But now, he suggests, Blue Shield is fulfilling an even more important function. It has given us "what we as a profession never possessed before . . . an intelligently coordinated and professionally controlled corporated body through which we can bargain with the public and they with us."

Dr. Bradford believes that "if we continue to administer Blue Shield wisely, it may be all that we need to retain our professional independence." But to do so, he warns, "we must be willing to give as well as to receive—to regulate our practice and our fees so as to preserve our freedom from being regulated, and to grant the public as many benefits as we hope to assure for ourselves."

". . . We, as doctors and as members of the medical society, are the managers of Blue Shield. Its success depends on us. Its failures remain our responsibility."

And, the doctor concludes: "We must grasp the larger significance of the splendid organization that we have built. . . . We must stand behind it . . . not for selfish gain, but to share with the public a mutual service and benefit. In this way, and in no other, can the medical profession preserve its time-honored status as an altruistic body of men, free from the sordid controls of politics or commerce, devoting itself wholeheartedly to scientific and humanitarian tasks."

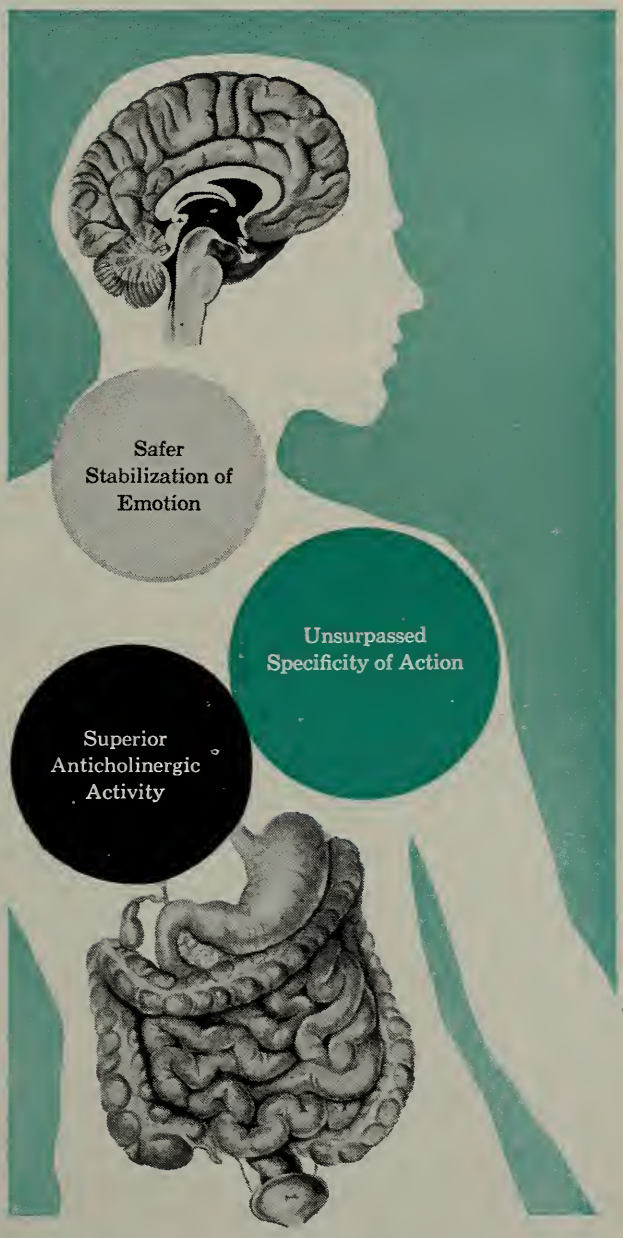
"THANK YOU"

The Editor wishes to express his sincere thanks to the doctors who have assisted in the solicitation and selection of papers and materials, including signed editorials for this, the Wayne County testimonial number, by Louis J. Bailey, M.D., Past President, and Clarence I. Owen, M.D., President. We wish also to express our appreciation to Harry D. Zemmer, M.D., who assisted with the August Rural Health number.

Controls Stress
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– for positive relief of cholinergic spasm. – a new and safer agent for normalizing emotions.



PRO-BANTHINE WITH DARTAL offers you a new, specific and reliable control of visceral motor disorders, especially when these disorders are induced or aggravated by psychic tensions or anxiety.

Pro-Banthine has won wide clinical acceptance as the most effective drug for controlling gastrointestinal hypermotility and hypersecretion.

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The combination of each drug in fully effective doses in Pro-Banthine with Dartal gives a new means of approach to the medical management of functional gastrointestinal disorders mediated by the parasympathetic nervous system.

Specific Clinical Applications: Functional gastrointestinal disturbances, gastritis, pylorospasm, peptic ulcer, spastic colon (irritable bowel), biliary dyskinesia.

Dosage: One tablet three times a day.

Availability: Aqua-colored tablets containing 15 mg. of Pro-Banthine (brand of propantheline bromide) and 5 mg. of Dartal (brand of thiopropazate dihydrochloride).

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Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

ARMY COURSE IN "MANAGEMENT OF MASS CASUALTIES"

The following schedule of the Army's course in "Management of Mass Casualties" gives the remaining course dates and the total Office of Defense and Civilian Mobilization allocation for the next fiscal year. Applications for this course will be processed by the State Health Commissioner and then forwarded directly to the Regional Medical Officer. Region Four's share of the national quota is not large and priorities will be given to those persons with specific civilian defense responsibilities. Accepted candidates will be notified directly from OCDM.

NEW FILMS AVAILABLE

The Michigan Department of Health has recently completed two motion pictures of interest to physicians in the state. One, entitled *Homes That Care* is designed to help improve standards of care in nursing homes and homes for the aged. The other, entitled *Food For Life,* deals with the importance of proper nutrition during pregnancy.

Homes That Care, a half-hour black and white sound film, provides a straightforward, realistic approach to the many problems facing typical nursing homes and homes for the aged. It deals with the fundamentals of good patient care and offers a practical demonstration of how various methods and facilities—from older, remodeled homes to new construction — can be best adapted to the needs of the aged patient.

Although produced especially for use by health department consultants in assisting home operators, it has broad appeal and actually serves as an excellent introduction to the whole concept of care of the aged.

Among the many aspects of care covered in the film are: home construction features, sanitation, techniques of caring for patients, personal hygiene, laundry procedures, sterilization techniques, use of medications, charting requirements and record forms, and consideration of the various professions necessary to help create homes that care.

Special stress is placed throughout the film on treating patients as individuals.

Food for Life, an eleven-minute color sound movie, was produced especially for use in the nutrition class of expectant parent courses. It deals with a young couple, expecting their first child, who attend expectant parent classes at the suggestion of their physician and who, then, put into practice at home many of the things they have learned.

The film stresses the vital importance of diet both to the mother and to the developing child. Phases of nutrition covered include the special role of vitamins, minerals, calories and proteins; the significance of the latest research findings; the importance of developing enduring food habits for the entire family; and the need for tasteful and attractive preparation of food.

The film will serve as the basis for an interesting and informative class on nutrition during pregnancy and should be of interest to anyone concerned with expectant parent education.

Both films are available for showing without charge to Michigan residents. Requests for bookings should be directed to the Section of Education, Michigan Department of Health, Lansing 4, Michigan.

MANAGEMENT OF MASS CASUALTIES COURSE

The new schedule of courses still available, being offered at the Walter Reed Army Medical Center and Brooke Army Medical Center during the fiscal year 1959 is listed as follows:

Walter Reed Army Medical Center, Washington, D. C.

Management of Mass Casualties	Feb. 16-21, 1959	FCDA Quota 4
Nursing in Medical Management of Mass Casualties	Nov. 3-8, 1958	FCDA Quota 3 nurses
	March 9-14, 1959	FCDA Quota 3 nurses

Brooke Army Medical Center, Fort Sam Houston, Texas

Management of Mass Casualties	Dec. 1-5, 1958	FCDA Quota 2
	Feb. 9-13, 1959	FCDA Quota 2
	April 27-May 1, 1959	FCDA Quota 2
	June 15-19, 1959	FCDA Quota 2

The quotas listed above are for all OCDM regions and lists a nurses' course for the first time.

Names and addresses of applicants should be submitted to this office at least two months in advance of the scheduled course commencement date. This is a necessary requirement in order for the National Office to make a fair allocation among the various regions. Lists of selected applicants will be forwarded to the Office of the Surgeon General.

PRICE OF OMISSION

A survey made by the North Carolina Industrial Commission, in one of the state's large textile manufacturing plants, unearthed the fact that over a twenty-four-month period 75 per cent of the accidents happened to workers who had not had breakfast. The largest number of injuries occurred at 10 a.m. All supervisors were asked to encourage employes to eat a good breakfast every working morning.—*Employe Relations Bulletin,* January 29, 1958.

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lucosamine potentiated tetracycline

N RESEARCH

. HIGHEST TETRACYCLINE SERUM LEVELS[1,2]

. MOST CONSISTENTLY ELEVATED SERUM LEVELS[1]

. SAFE PHYSIOLOGIC POTENTIATION WITH A NATURAL HUMAN METABOLITE[3]

ND NOW IN PRACTICE

. MORE RAPID CLINICAL RESPONSE[4,5,6]

. UNEXCELLED TOLERATION[4,5,6,7,8]

OSA-TETRACYN*

cosamine potentiated tetracycline

PSULES (black and white)
) mg., 125 mg.

AL SUSPENSION (orange flavored)
oz. bottle, 125 mg. per tsp. (5 cc.)

DIATRIC DROPS (orange flavored)
cc., 5 mg. per drop (100 mg. per cc.)
librated dropper

COSA-TETRASTATIN*

glucosamine potentiated tetracycline with nystatin

CAPSULES (black and pink)
250 mg. Cosa-Tetracyn (with 250,000 u. nystatin)

ORAL SUSPENSION (orange-pineapple flavored) 2 oz. bottle, 125 mg. Cosa-Tetracyn (with 125,000 u. nystatin) per tsp. (5 cc.)

For patients susceptible to monilial superinfection.

COSA-TETRACYDIN*

glucosamine potentiated tetracycline-analgesic-antihistamine compound

CAPSULES (black and orange)
each capsule contains:

Cosa-Tetracyn	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
Salicylamide	150 mg.
Buclizine HCl	15 mg.

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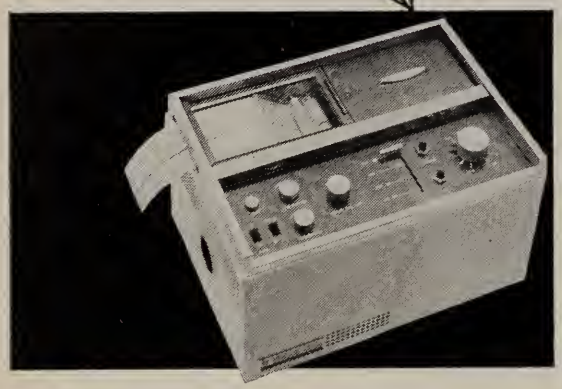
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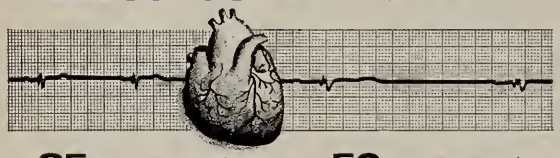
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In Memoriam

JAMES I. BALTZ, M.D., sixty-two, chief associate of the department of gastroenterology at Henry Ford Hospital, Detroit, died June 29, 1958, following a lengthy illness.

A native of Washta, Iowa, Doctor Baltz studied as an undergraduate at Cornell College, Mount Vernon, Iowa, and received his medical degree in 1926 at the University of Iowa. He came to Henry Ford Hospital for his internship in 1927 and remained there since that time as a staff member.



CLAIRE L. STRAITH, M.D., sixty-six, of Detroit, internationally known plastic surgeon, died unexpectedly Sunday, July 13, in Glasgow, Scotland. He has been on an American College of Surgeons cruise of Scandinavian countries with Mrs. Straith.

Doctor Straith was born August 30, 1891, in Hurrow, Ontario. Following his premedical education at University of Michigan, completed in 1915, he went to Rush Medical Center in Chicago, where he received his medical degree in 1917.

To obtain a better background for plastic surgery, Doctor Straith attended the Chicago College of Dentistry and received a degree in dentistry in 1918. Postgraduate work in plastic surgery was taken by Doctor Straith in London and Paris in 1925.

He was widely known for his twenty-five-years fight for safety features in automobiles to reduce skull and facial injuries in crashes.

Doctor Straith and his son, Richard E. Straith, M.D., also a noted plastic surgeon, opened Straith Memorial Hospital, Detroit, in 1954. He was chief of plastic surgery service at Harper Hospital for many years.

HYMAN A. VOGEL, M.D., Garden City physician, died July 2, 1958.

Born in New York City, Doctor Vogel graduated in 1926 from the University of Michigan Medical School and interned at Providence Hospital before setting up practice in Garden City in 1931.

Doctor Vogel was on the staffs of Providence and Mt. Carmel Hospitals in Detroit, Oakwood in Dearborn and Annapolis in Wayne. In 1945, he organized the Garden City Medical Center.

He was president of the school board, a member of Temple Israel and Kiwanis, and an organizer of the Garden City Square Deal and Democratic Clubs.

It has never been possible to confine a disease such as tuberculosis to a narrow specialty.—G. J. WHERRETT, M.D., *Canadian Journal of Public Health,* November, 1956.





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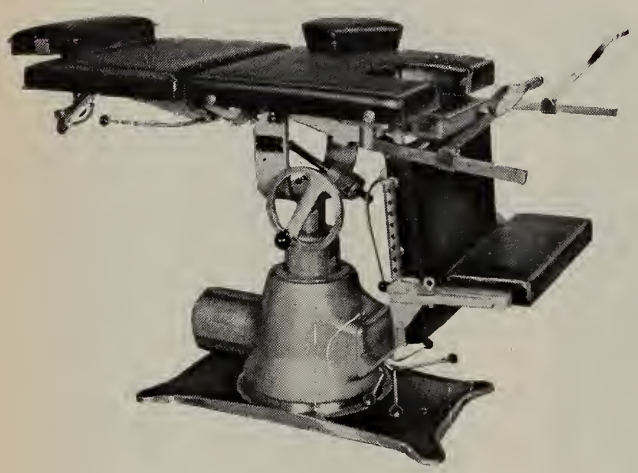
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Legal Opinion

Mr. William J. Burns
Executive Director
Michigan State Medical Society
Lansing, Michigan

Dear Mr. Burns:

Inquiry is made as to the ownership of the records made and kept in the hospital pertaining to the patient's history, care and treatment. I am unable to find any statute or adjudicated case in Michigan which deals with hospital records on the basis of ownership. In all cases which I have found dealing with any phase of hospital records, it seems to have been assumed that they were records of the usual nature regularly kept by and in hospitals and therefore in that limited sense were the property of the hospital. Such opinion as I am able to express is, therefore, my own and is unsupported by judicial authority.

Actually, I doubt that the narrow question of "ownership" of the records is of any great practical significance. If I may assume, as I understand is generally true, that the by-laws or regulations of the hospital and perhaps those of the medical staff require the keeping of the records in question, I believe they would be regarded as belonging to the hospital. In a broad sense, of course, the person having the greatest interest in the records from a standpoint of their disclosure to others would be the patient without whose consent it would be improper to allow access to them. With the patient's consent, however, it is my opinion that the hospital, which is the custodian if not the sole owner of the records, may make them available to persons duly authorized by the patient.

Sincerely yours,

Detroit, Michigan
June 4, 1958

LESTER P. DODD
Legal Counsel

TERMINATION OF THE TREPONEMA PALLIDUM IMMOBILIZATION DIAGNOSTIC SERVICE

(Continued from Page 1298)

Summary

The Treponema Pallidum Immobilization test has been discontinued as a diagnostic service in the Department of Dermatology, at the University of Michigan Hospital. The possibility of substituting one of the simpler and cheaper modified treponemal tests is under consideration. TPI tests are available through the state department of health laboratories.

Reference

Wheeler, A. H.: The treponema pallidum immobilization test in the diagnosis of syphilis. J. Michigan S. M. Soc., 52:859, 1953.

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*HARDY, J. A.: *Obstet. & Gynec.* (Nov., 1956)



. NEWS MEDICAL

MICHIGAN AUTHORS

Sidney Friedlaender, M.D., and **Alex S. Friedlaender, M.D.,** Detroit, are the authors of an article entitled "Use of Triamcinolone, A New Corticosteroid in the Management of Allergic Disease," published in *Antibiotic Medicine and Clinical Therapy,* May, 1958.

Herbert J. Robb, M.D., John W. Bowden, M.D., Rudolph Castellani, M.D., and **Charles G. Johnston, M.D.,** Detroit, are the authors of an article entitled "Prognosis in Peripheral Arterial Insufficiency Associated with Claudication or Ulceration," read at the 65th Annual Meeting of the Western Surgical Association, Salt Lake City, November 22, 1957, and published in the AMA *Archives of Surgery,* June, 1958.

Melvin A. Block, M.D., Brock E. Brush, M.D., Joseph L. Ponka, M.D., and **Andre Chepeau, M.D.,** Detroit, are the authors of an article entitled "Stenosis of the Sphincter of Oddi as a Cause of Jaundice," read at the 65th Annual Meeting of the Western Surgical Association, Salt Lake City, November 23, 1957, and published in the AMA *Archives of Surgery,* June, 1958.

Robert S. Jampel, M.D., and **Harold F. Falls, M.D.,** Ann Arbor, are the authors of an article entitled "Atypical Retinitis Pigmentosa, Acanthrocytosis, and Heredodegenerative Neuromuscular Disease," published in AMA *Archives of Ophthalmology,* June, 1958.

J. Reimer Wolter, M.D., Ann Arbor, is the author of an article entitled "Reactions of the Cellular Elements of the Corneal Stroma," published in the AMA *Archives of Ophthalmology,* June, 1958.

Willard D. Mayer, M.D., and **Max R. Beitman, M.D.,** Detroit, are the authors of an article entitled "Melanosarcoma of the Chiroid with a Long Period of Survival," published in the AMA *Archives of Ophthalmology,* June, 1958.

John S. Meyer, M.D., and **J. L. Chason, M.D.,** Detroit, are the authors of an article entitled "Diseases of the Basilar Artery," published in the *Wayne State University College of Medicine and Detroit Receiving Hospital Bulletin,* Vol. 5, No. 1.

Sidney Edward Chapin, M.D., Dearborn, is the author of an article entitled "Cardiac Emergencies," read at the Michigan Industrial Medical Association meeting, Fort Shelby Hotel, Detroit, 1957, and published in *Industrial Medicine and Surgery,* June, 1958.

Frank H. Bethell, M.D., Ann Arbor, is the author of an article entitled "Advances in the Management of Hematologic Disorders," published in *GP,* July, 1958.

John W. Henderson, M.D., Ann Arbor, is the author of an article entitled "The Problem of Progressive Exophthalmos in Thyroid Disease," presented at the 91st Annual Session of the Michigan State Medical Society, Detroit, September, 1956, published in THE JOURNAL of the Michigan State Medical Society and reprinted in *Guildcraft,* July, 1958.

Ian M. Thompson, M.D., Ann Arbor, and **John Schneider, M.D.,** and **Pedro Lantin, M.D.,** Galveston, Texas, are the authors of an article entitled "Trypsin Therapy in Genito-Urinary Inflammations," published in *American Practitioner and Digest of Treatment,* July, 1958.

Robert J. Bolt, M.D., H. Marvin Pollard, M.D., and **Ludovic Standaert, M.D.,** Ann Arbor, are the authors of an article entitled "Transoral Small-Bowel Biopsy as an Aid in the Diagnosis of Malabsorption States," published in the *New England Journal of Medicine,* July 3, 1958.

S. E. Gould, M.D., D.Sc., Eloise, is the author of an article entitled "Frederick George Novy, Microbiologist, 1864-1957," published in the *American Journal of Clinical Pathology,* April, 1958.

James J. Lightbody, M.D., Detroit, is the author of an article entitled "Have Stethoscope, Will Travel," published in *Detroit Medical News,* November 11, 1957, and reprinted in *Current Medical Digest,* July, 1958.

E. Osborne Coates, Jr., M.D., and **Ellet H. Drake, M.D.,** Detroit, are the authors of an article entitled "Myxoma of the Right Antrium, with Variable Right-to-Left Shunt," published in the *New England Journal of Medicine,* July 24, 1958.

George H. Koepke, M.D., Edwin M. Smith, M.D., Alma J. Murphy, Ph.D., and **David G. Dickenson, M.D.,** Ann Arbor, Michigan, are the authors of an article entitled "Sequence of Action of the Diaphragm and Intercostal Muscles During Respiration" read at the Thirty-fifth Annual Session of the American Congress of Physical Medicine and Rehabilitation, Los Angeles, September 11, 1957, and published in *Archives of Physical Medicine and Rehabilitation,* July, 1958.

W. L. Howard, M.D., Maybury Sanitarium, is the author of an article entitled "A Barrier to Successful Treatment," published in the publication of the Michigan Tuberculosis Association, *Health,* Summer, 1958.

Daniel S. Elman, M.D., Detroit, is the author of an article entitled "Familial Association of Nerve Deafness with Nodular Goiter and Thyroid Carcinoma," a student essay (first prize) from Wayne State University College of Medicine, published in the *New England Journal of Medicine,* July 31, 1958.

Adele L. Rolfe, M.S.W., Arthur J. Derbyshire, Ph.D., and **Z. Stephen Bohm, M.D.,** Detroit, are the authors of

(Continued on Page 1316)

ARTHRITIS... OR GOUT?



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(Continued from Page 1314)

an article entitled "Mobile EEG Diagnostic Unit of the Michigan Epilepsy Center and Association," published in the *Journal of the American Medical Association*, August 2, 1958.

Hermann Pinkus, M.D., Monroe, is the author of an article entitled "Keratosis Senilis, A Biologic Concept of Its Pathogenesis and Diagnosis Based on the Study of Normal Epidermis and 1730 Seborrheic and Senile Keratoses," published in *The American Journal of Clinical Pathology*, March, 1958.

Z. S. Bohn, M.D., Detroit, is coauthor of an original article, "Mobile EEG Diagnostic Unit of the Michigan Epilespy Center and Association," which appeared in JAMA of August 2, 1958, page 1723. Collaborating authors are: A. L. Rolfe, M.S.W., and A. J. Derbyshire, Ph.D.

Papers Presented

W. Wilber Ackerman, M.D., and **Fred M. Davenport, M.D.**, of the University of Michigan School of Public Health and Medical Clinic presented special papers on polio and influenza at the Seventh International Conference for Microbiology in Stockholm, Sweden, August 4-9, 1958. Pearl L. Kendrick also attended as well as Phillip Gerhardt, M.D., Associate Professor of Bacteriology in the Medical School. Dr. Davenport also attended the Sixth International Conference on Tropical Medicine and Malaria in Lisbon, Portugal, September 5-13, 1958.

Frederick H. Epstein, M.D., of the Epidemiology Department of the University of Michigan, gave a paper on "Heart Disease" at the Third World Conference on Cardiology in Brussels.

M. K. Newman, M.D., of Detroit, presented the following papers at the annual meeting of the American Academy of Law-Science at Gulfport, Mississippi: Medico-Legal Aspects of Electromyography" and "Physical Medicine of Rehabilitation in Medico-Legal Medicine; Its Application to Personal Injury in Trial Techniques."

* * *

The American Association of Medical Assistants will hold its second annual meeting October 31, November 1 and 2, 1958, at the Palmer House, Chicago. All medical assistants are invited to attend. A busy program is announced beginning with registration and the House of Delegates meeting at 8 a.m., followed by the business session.

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*Sea food—source of highly potent allergens. Typical are: lobster; tuna; sturgeon roe; fish oil used to prepare leather, chamois, soaps; cuttlefish bone for polishing material and tooth powder; glues made from fish products.

The International College of Surgeons will hold its fourth Around-The-World Postgraduate Clinic and Lecture Tour, departing from San Francisco on October 10, and returning to New York on December 3 this year.

Sections of the College will be held in Hawaii, Japan, Hong Kong, the Philippines, Thailand, India, Egypt, Turkey, Greece, Italy and Spain. Further information may be had by writing to Dr. Arnold S. Jackson, tour co-ordinator, 16 South Henry Street, Madison 3, Wis., or to the International Travel Service, Inc., 119 South State Street, Chicago 3.

* * *

The Twenty-ninth Annual Summer Education Conference was held at the University of Michigan, July 16 and 17. Gerald Wendt, science editor of UNESCO (United Nations Educational, Scientific, and Cultural Organization), emphasized that we do not now anticipate another war. He believes the prospects of an atomic war are shrinking, but war or no war, our problems are going to be world wide. He feels we must concentrate on acquiring languages, in particular, Russion, Arabic, and Chinese—as these will be needed by the people who will be sent all over the world for us after a victory. If there is no war the needs are exactly the same and we will have to supervise or actually take part in administering and governing great areas and great masses of people. On the school level, our science will continue to advance, war or no war. The average span of life has increased and will continue to increase. New babies born this year have an average chance of living through the first quarter of the next century. Our children are in fact the children of the 21st century.

Scientific research indicates there will be more changes in the next twenty-five years than there were in the last fifty. Therefore we must be educated for change beyond recognition. Adjustment, however, is not as important as adjustability. Medical science also has extended the span of life from fifty to seventy years in the past half century, by all but conquering bacterial diseases. The greatest product now for a further increase in life's span seems to lie in the attack of the virus diseases. Already great strides have been made. Medical science is on the threshold of complete conquest of the virus infections. The prevention of cancer can be expected.

* * *

The American College of Radiology for Users of X-Rays in the Healing Arts has prepared a "Practical Manual on the Medical and Dental Use of X-Rays with Control of Radiation Hazards." A "cost only" charge of 25 cents a copy is made. The College believes that



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Robins

1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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1. Hodges, F. T.: *GP* 14:86, Nov., 1956.

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whether the physician conducts his own x-ray studies or refers patients to radiologists, that this Manual supplies basic, valuable information. The booklet discusses radiation and its hazards under the headings: Radiation Hazards, Effects on the Human Body, Sources of Exposure and Radiation Dose and Control. Also practical procedures: Chest Fluoroscopy, Dental Radiography, Abdominal and Pelvic Radiography, Examinations of the Extremities and Other Procedures.

* * *

The Mid-West Forum on Allergy will hold its annual meeting on December 6 and 7, 1958, at the Sheraton-Cadillac Hotel, Detroit, Michigan. This meeting of the Forum is sponsored by the Michigan Allergy Society. For further information, please write to John M. Sheldon, M.D., General Chairman, in care of the University Hospital, Ann Arbor, Michigan.

* * *

The American College of Surgeons will hold its 44th annual Clinical congress in Chicago, October 6-10, 1958, at the Conrad Hilton Hotel. Among the major addresses will be one by Newell W. Philpott, M.D., Montreal, incoming President of the College, also George J. Curry, M.D., Flint, Michigan, an authority on care of the injured, and Gunnar Thorsen, M.D., Stockholm, Sweden, distinguished surgeon and writer in the field of essential body fluids.

There will be approximately 200 reports on research in surgical progress and surgery in the future made by researchers from medical centers schools and hospitals in the sessions known as the Forum on Fundamental Surgical Problems.

On the final evening, October 10, more than 1,100 initiates will be presented for Fellowship in the College, Honorary Fellowships conferred, and officers inaugurated.

* * *

The National Medical Foundation for Eye Care, with Harold F. Falls, M.D., of Ann Arbor, on the Board of Trustees, announces the early publication of the Foundation's Report No. 5 to the Medical Profession on "Eye Care and Prepayment Plans." The report will comprise a condensed history of medical service plans; a discussion of organized medicine's policies relative to these plans; a review of organized labor's activities in developing union health programs in general and "vision care" plans in particular; and a suggested pilot plan for ophthalmological services on a prepaid basis.

The purpose of this study is to acquaint American ophthalmologists with the increasing interest of labor groups in incorporating medical eye care into their medical service programs, and to suggest ways in which ophthalmology can participate in these programs in keeping with the highest ethical and professional standards.

* * *

The American Medical Writers Association will hold its 15th annual meeting at the Hotel Morrison, Chicago, September 26, 27. There will be sixteen speakers on September 26 including Alton Ochsner, M.D., Professor of Surgery, Tulane University; Austin Smith, M.D.,

(Continued on Page 1320)

They all went to the doctor . . .

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(Continued from Page 1318)

Editor, J.A.M.A.; Karl A. Menninger, M.D., Chief of Staff, Menninger Foundation.

The workshop on the 27th will be directed by J. P. Gray, M.D., of Detroit, Visiting Lecturer on Medical Writing.

* * *



(Photo by courtesy of *The Manistee News-Advocate)*

Certificates of appreciation were recently awarded two Manistee medical doctors, personnel of the Manistee Selective Service Board, in recognition of their outstanding public service to the nation, it was announced by Herman E. Kreider *(right),* chairman of the Local Board No. 53.

Awards were presented Ellery A. Oakes, M.D. *(left),* medical advisor for fifteen years; and Homer A. Ramsdell, M.D., medical advisor for fifteen years. Dr. Ramsdell was out of the state and was unable to be present when the awards were made.

In transmitting the awards issued in the name of the President of the United States and the National Director of Selective Service, Colonel Arthur A. Holmes. state director, declared: "With this certificate goes my sincere appreciation for your devotion to duty, your integrity and leadership and your demonstrated spirit of volunteer public service."

* * *

Mercywood Hospital, for thirty years the neuropsychiatric unit of St. Joseph's Mercy Hospital, Ann Arbor, is now an independent facility of 130 beds with an active medical staff of six physicians. Under the new arrangement close liaison with the Ann Arbor medical community will remain unchanged. Admissions in the sanitarium have exceeded 1300 for the past three years. The average patient stay is from three to six weeks. The effort is to give short term, intensive psychiatric treatment and return the patient to their families, jobs, and the community with minimum expense and loss of time.

A full-time occupational therapy unit and the recently

(Continued on Page 1322)

ANNALS OF INTERNAL MEDICINE

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"Physicians can be divided into two great groups, those that are learning and those that are forgetting, those that each year know more, and those that each year know less.

"A few physicians increase in knowledge from within and grow from their own doing. These are the innate investigators. The rank and file require outside help to grow and to progress. *Medical journals,* books, meetings, contacts, discussions, teachers, are our armamentarium for progress. Like the 'spring tonic' of past days, all of us need some of this medicine regularly. A large majority of physicians know their need and seek treatment.

"Things in nature rarely are static; they increase or they decrease; they grow or they decay; they progress or they retrogress. Man's education in many respects resembles things of nature; rarely is it static; when knowledge does not increase, almost always it decreases. Physicians should remember this and make every effort to keep out of the static state and on the side of increase, of growth, of progress."—The late Henry A. Christian, M.D., M.A.C.P.

Subscription—$10.00, United States, Canada, Hawaii and Puerto Rico; $7.00, above countries, to bona fide medical students, internes, residents and fellows-in-training (certified in writing by the institution); $12.00, other countries.

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1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

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4444 Woodward Avenue, Detroit 1, Mich.

(Continued from Page 1320)

completed recreational building now provide the full range of ancillary care and service. The present active staff is headed by Leonard E. Himler, M.D., Chairman.

* * *

The American Rhinologic Society will hold its fourth annual meeting in the Palmer House, Chicago, October 17-18. Among the topics to be discussed will be pulmonary and nasal physiology, laboratory and clinical aspects of bone transplants, hump removal, roof repair, and nasal process corrections.

Dr. Russell I. Williams of Cheyenne, President of the Society, will preside. Dr. Guy L. Boyden, professor of otolaryngology, University of Oregon Medical School, Portland, will be the guest of honor. The Society will display many reprints, papers, slides, charts and other teaching and study material available to the profession upon request. Two new exhibits suitable for showing at state society and other professional meetings will also be presented.

For further information, write to Dr. Robert M. Hansen, secretary of the society, 1735 North Wheeler Avenue, Portland 17, Ore.

* * *

In order to inform all practitioners of the State of Michigan, the following list of Poison Control Centers is being published as released by Philip J. Howard, M.D., Chairman, Michigan Academy of Pediatrics, Detroit. This will enable the doctors to know where they can get immediate help with their poison problems.

POISON CONTROL CENTERS IN THE STATE OF MICHIGAN

City	*Name and Address*	*Director*
Ann Abor	Poison Control Center University Hospital 1313 E. Ann Street	George H. Lowery, M.D.
Detroit	Poison Information Center Registrar's Office Herman Kiefer Hospital 1151 Taylor Avenue	Paul T. Salchow, M.D. William G. Frederick, M.D.
Coldwater	Poison Control Center Community Health Center of Branch County 274 E. Chicago Street	John Etsweiler
Grand Rapids	Poison Control Center Butterworth Hospital 300 Bostwick N.E.	Mark W. Dick, M.D.
Grand Rapids	Poison Control Center Blodgett Memorial Hosp. 1800 Wealthy S.E.	John Montgomery, M.D.
Grand Rapids	Poison Control Center St. Mary's Hospital 250 Cherry Street S.E.	Craig E. Booher, M.D.
Midland	Poison Control Center Midland Hospital 4005 Orchard Drive	G. Fred Moench, M.D.
Pontiac	Poison Control Center St. Joseph Mercy Hosp. 900 Woodward Avenue	Robert J. Mason, M.D.
Port Huron	Poison Control Center Mercy Hospital 2601 Electric Avenue Port Huron, Michigan	R. M. Lugg, M.D.

(Continued on Page 1324)



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Medical Products Division

LOMA LINDA FOOD COMPANY

ARLINGTON, CALIFORNIA • MT. VERNON, OHIO

(Continued from Page 1322)

Alexander Blain III, M.D., Detroit, has announced the appointment, as Attending Surgeon, of Francis S. Gerbasi, M.D., M.S., (Surg.) F.A.C.S. to the Blain Clinic and Alexander Blain Hospital. Dr. Gerbasi is a Diplomate of the American Boards of Surgery and Thoracic Surgery.

* * *

The Medical School of the University of Wisconsin announces a series of five sessions at various times. These courses in postgraduate medical education are supported in part by the W. K. Kellogg Foundation, Battle Creek, Michigan.

* * *

Hermann Pinkus, M.D., acting chairman of the department of dermatology at Wayne State University College of Medicine, was elected president of the Society for Investigative Dermatology at the 19th annual meeting in San Francisco.

* * *

The American Otorhinologic Society for Plastic Surgery, Inc., will hold its meeting and give a Seminar in Plastic Surgery of the Head and Neck in Mexico City and Acapulco from February 15 through February 25, 1959, under the sponsorship of the Sociedad Mexicana de Otorrinolaringologia and in conjunction with the Universidad Nacional Autonoma de Mexico.

Registration is open to members and non-members of our Society. The registration fee for members is $15.00. A registration and tuition fee amounting to a total of $75.00 (in American currency) is required of non-members. Payment must be made in advance by not later than October 1, 1958.

* * *

International College of Surgeons, Southeastern regional meeting, will be held in Miami Beach, January 4-7, 1959. For information, write to Harold O. Hallstrand, M.D., 7210 Red Road, South Miami, Florida, chairman.

International College of Surgeons, Japan Section, will hold its fifth annual congress in Hiroshima, Japan, November 2. For information, write to International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, Illinois.

* * *

Gastroenterological Convention. The 23rd Annual Convention of the American College of Gastroenterology will be held at the Jung Hotel in New Orleans, Louisiana, on October 20-22, 1958.

In addition to formal papers, there will be panel discussions on Gastric Carcinoma, Steroids in Gastroenterology and Functional Disturbances of the Gastrointestinal Tract.

On October 23, 24, 25, immediately following, the Annual Course in Postgraduate Gastroenterology will occur, limited to those who have registered in advance.

Silver certificates will be presented to those who have

(Continued on Page 1326)

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Diplomate, American Boards of Surgery and Thoracic Surgery,

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(Continued from Page 1324)

been affiliated with the organization twenty-five years.

As a part of this year's sessions, a one-day regional meeting will be held at the University Hospital in Mexico City on October 27, 1958, and members of the College from that city will present papers.

Copies of the program and further information concerning the Postgraduate Course and Mexico Regional Meeting may be obtained by writing to: American College of Gastroenterology, 33 West 60th St., New York 23, N. Y.

* * *

Edwin L. Harmon, M.D., director of the 800-bed Grasslands Hospital at Valhalla, New York, for the past nineteen years, has been appointed Medical Director of Michigan Hospital Service (Blue Cross).

He is resigning from his present position and will assume his duties with Michigan Hospital Service, October 1, 1958. Dr. Harmon replaces Brooker L. Masters, M.D., who resigned as Medical Director July 1 to return to private practice in Fremont, Michigan.

The basic functions of the Blue Cross Medical Director are to formulate medical policy and to provide specialized medical review of all aspects of our Blue Cross program.

Dr. Harmon's long experience as director of a large hospital will be invaluable in the medical evaluation of hospital admissions and billings which will be a major responsibility of the new post.

Dr. Harmon, who is fifty-seven, has been active in hospital and medical organizations since his graduation from Western Reserve University School of Medicine in 1927. He is currently serving as a Trustee of the American Hospital Association of which he has been a member since 1931. He is a fellow of the American College of Hospital Administrators since 1940, and he served as assistant director of University Hospital in Cleveland from 1930-1939. He is a member of the New York Medical Society.

* * *

Carl E. Badgley, M.D., Ann Arbor, professor of surgery in the University of Michigan Medical School, has been granted a sabbatical leave for six months, beginning September 1, 1958, to complete a number of monographs for publication and to investigate orthopedic training in South America.

* * *

Veterinary Public Health Conference.—The nation's first institute on Veterinary Public Health Practice will be held at The University of Michigan School of Public Health October 6-9, 1958.

The pioneer institute will bring together a vast amount of knowledge in this new field. In preparation for the meeting, ninety-five people in five study committees have been gathering information for two years.

An expected 200 people in all professional groups of public health and veterinary medicine from the United

(Continued on Page 1328)



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SO MANY WOMEN COMPLAIN ABOUT LEG FATIGUE!

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Clings to itself — prevents slipping
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(Continued from Page 1326)

States and Canada will atend and search for an answer to the question: what is the most effective use to be made of veterinary medicine in public health?

The advance study committees have been working on thirteen major items: food hygiene (including production of food animals and human nutrition); experimental medicine, surgery, and the care of laboratory animals; administration; geriatrics; chronic diseases; occupational health; newer needs in professional education; military veterinary medicine; biological and pharmaceutical production and control; dental diseases; radiation; disease geography; and laboratory administration and services, including research.

Another purpose of the Institute will be "to compile a publication on veterinary public health practice which reflects the thinking of the Institute, stimulated by formal presentations and committee studies."

Planners expect this new field will follow the national growth pattern of dental public health practice, which has been greatly aided through conferences conducted by the U-M School of Public Health, the most recent being in 1956.

The October Institute will be conducted by the U-M School of Public Health in collaboration with the Association of State and Territorial Health Officers, the Association of State Public Health Veterinarians, the American Board of Veterinary Public Health, the American Veterinary Medical Association, the Conference of Public Health Veterinarians, the Michigan State University College of Veterinary Medicine, the Michigan Department of Health, the United States Public Health Service Communicable Disease Center, and the American Public Health Association.

* * *

Medicine and Industry Work for the Common Good.—A practical example of industry and medicine working together for the common good is the Dodrill-GMR mechanical heart which has been used successfully in many heart operations. Developed by the Chrysler Corporation, the mechanical heart takes over the heart's pumping action temporarily while a patient is undergoing heart surgery. According to L. L. Colbert, president, Chrysler Corporation, the perfected machine came as a result of the combined efforts of F. D. Dodrill, M.D., Detroit, who developed the idea, and the Chrysler engineers who built the mechanical heart. (From —AMA News Release, July, 1958).

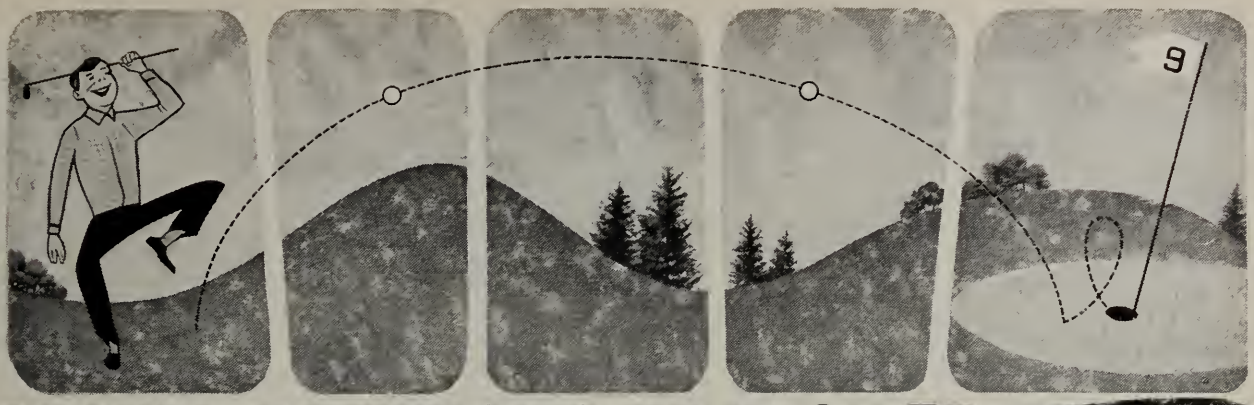
* * *

The New York Academy of Medicine will hold its second annual Postgraduate Week, October 13-17, on the subject, "Research Contributions to Clinical Practice." For program and details, write Robert L. Craig, M.D., 2 East 103 Street, New York 29.

* * *

Urology Award.—The American Urological Association offers an annual award of $1,000.00 (first prize of $500.00, second prize $300.00 and third prize

(Continued on Page 1330)



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HYCOMINE® Syrup

THE COMPLETE Rx FOR COUGH CONTROL

cough sedative / antihistamine / expectorant

- relieves cough and related symptoms in 15-20 minutes
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Each teaspoonful (5 cc.) contains:

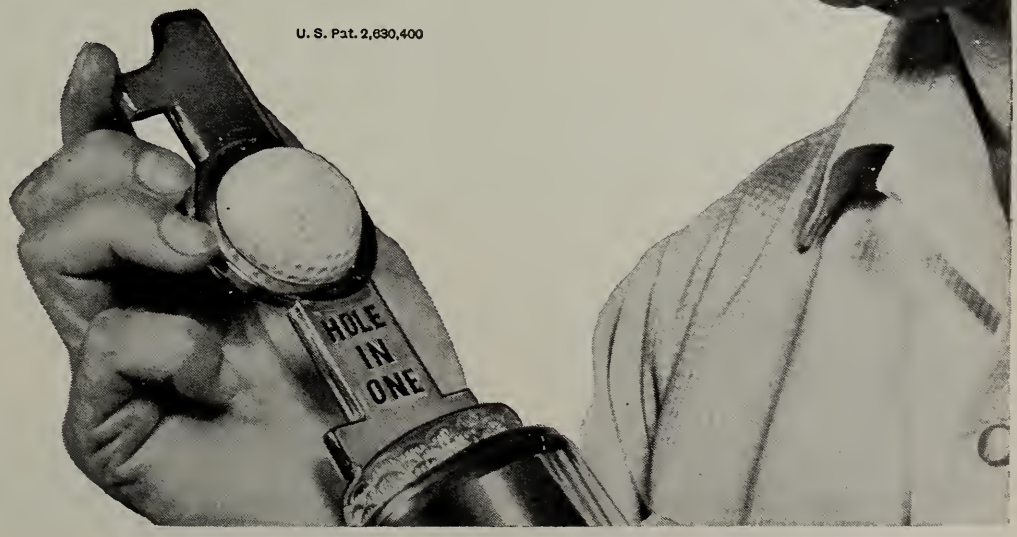
Hycodan®		
Dihydrocodeinone Bitartrate (Warning: May be habit-forming)	5 mg.	6.5 mg.
Homatropine Methylbromide	1.5 mg.	
Pyrilamine Maleate		12.5 mg.
Ammonium Chloride		60 mg.
Sodium Citrate		85 mg.

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(Continued from Page 1328)

$200.00) for essays on the result of some clinical or laboratory research in urology; limited to urologists who have been graduated not more than ten years and to hospital interns and residents doing research work in urology. For full particulars write William P. Didusch, Executive Secretary, 1120 North Charles Street, Baltimore 1, Maryland.

* * *

The American Cancer Society, Southeastern Michigan Division, will hold a leadership training conference for volunteer workers at Kellogg Center, East Lansing, October 8-9-10. Outstanding speakers from the medical and professional fields are being invited to conduct forums in the fields of education and service in which volunteers are active. Outstanding figures in the national American Cancer Society will participate in phases of the program. For detailed program and information, write E. W. Tuescher, Executive Director, 4811 John R., Detroit 1.

* * *

The Southern Medical Association formally dedicated its new headquarters office building on September 7. The new building is at 2601 Highland Avenue, Birmingham, Alabama.

* * *

At the University of Michigan Medical Center, one hundred and twenty-eight doctors of medicine began their professional careers on July 1. During their two-day orientation, the new residents and interns received many facets of important information from members of the faculty and representatives of medical and scientific organizations. The two speakers, on behalf of the medical profession and the Michigan State Medical Society, were Sidney E. Chapin, M.D., of Dearborn and D. Bruce Wiley, M.D., of Utica.

* * *

Robert A. Clowater, M.D., of Howell; **James D. Fryfogle, M.D.,** Detroit and **Carl O. Ramzy, Jr., M.D.,** Traverse City were awarded certificate of fellowship in the American College of Chest Physicians in San Francisco on June 21.

Congratulations!

* * *

At the University of Michigan Medical Alumni banquent September 30 at the Wayne County Medical Society headquarters. Detroit, the new Chairmen of the Departments of Anatomy, Medicine, Otolaryngology, and Surgery will be introduced. This banquet, planned to coincide with the opening of the Tuesday-noon-through-Friday-noon Annual Sessions of MSMS, will give most alumni their first chance to meet the new heads of these four major medical departments. University President Harlan Hatcher and Medical School Dean A. C. Furstenberg, M.D., will introduce the new chairmen.

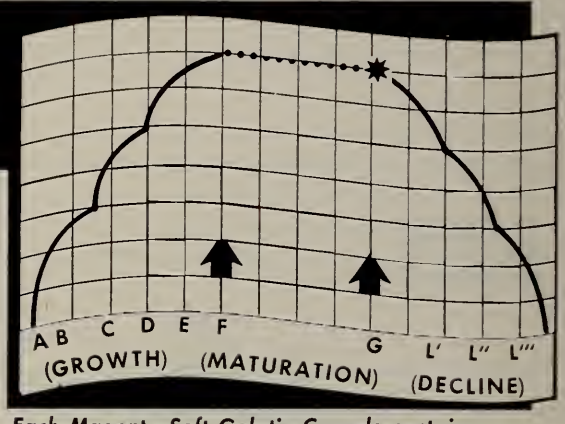
* * *

"The Family Doctor" goes on TV—Before the 1958 House of Delegates convenes on Sunday evening, Septem-

(Continued on Page 1332)

...to postpone the "G" point*...

℞ Geritag



For patients over 40, The G POINT (point of declination in life) can be postponed!

Properly balanced Androgen — Estrogen — nutritional therapy may prevent premature aging and damage of gonadal decline and nutritional inadequacy.

Complaints of symptoms such as muscular pain, fatigue, irritability, and poor appetite in the patient over 40 may be the first indications of three major stress factors in the aging process: (1) Gonadal Hormonal Imbalance, (2) Nutritional Inadequacy and (3) Emotional Instability. GERITAG is especially formulated to guard against premature damage and to delay the degenerative process.

Rx GERITAG in preventive geriatrics.

*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

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Each Magenta Soft Gelatin Capsule contains:

Methyltestasterane	2 mg.	Thiamine Hcl.	2 mg.
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Ferrous Sulfate	50 mg.	Pyridaxine Hcl.	0.3 mg.
Rutin	10 mg.	Niacinamide	20 mg.
Ascorbic Acid	30 mg.	Manganese	1 mg.
B-12	1 mcg.	Magnesium	5 mg.
Molybdenum	0.5 mg.	Iadine	0.15 mg.
Cobalt	0.1 mg.	Patassium	2 mg.
Copper	0.2 mg.	Zinc	1 mg.
Vitamin A	5,000 I.U.	Chaline Bitartrate	40 mg.
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Furthermore, if the patient is suffering from headache, insomnia, and arthritic-like symptoms before the menopause and even after, "Premarin" takes care of that, too.

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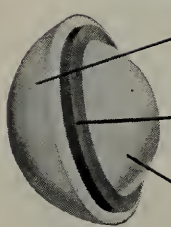
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ORAL (tablet swallowed whole)
for dependable prophylaxis

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NITROGLYCERIN—
0.4 mg. (1/150 grain)—acts quickly

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signals patient when to swallow

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For continuing prophylaxis patient swallows the entire Dilcoron tablet.

Average prophylactic dose:
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Bottles of 100.

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(Continued from Page 1330)

ber 28, the public will see an hour-long telecast depicting the routine of a typical physician's office. This public service dramatization, being staged at 5:30 p.m. on Channel 2 by WJBK-TV for MSMS, will lead the viewer through the steps of a physical examination.

Some of the "machines of medicine," such as the EKG and BMR, will be demonstrated and explained by M.D.'s. Also, some surgical procedures such as are commonly performed in the doctor's office will be telecast and reviewed.

* * *

William Wiard, Detroit, was appointed, on July 1, as Executive Director of Michigan Heart Association, succeeding E. H. Guy who assumed a similar position with the Texas Heart Association.

* * *

Hospital Statistics. — Hospitals in the continental United States cared for 22,993,000 patients in 1957—an increase of more than 900,000 over the 1956 total, according to information from the American Hospital Association, which states that 3,739,259 babies were born in U. S. hospitals last year. On any given day in 1957, an average of 1,320,000 patients and 48,775 newborn infants were hospitalized.

MHA further reports that: "The voluntary hospitals which care for the great majority of the acute short-term cases in the nation spent an average of $26.81 a day for the care of each patient, an increase of $1.82 over 1956. In these hospitals, the average expenditure on each patient in 1957 was $198.39 compared with $181.43 in 1956. The average patient's stay in the voluntary hospitals was 7.4 days, a slight decrease from 7.5 days in 1956. Patients in voluntary hospitals paid an average of $1.52 a day less in 1957 than it cost to care for them."

MEDICAL TELEVISION SHOWS

Produced by
Michigan Health Council

July 6—Tuberculosis (Films—"The Long Night" and "Are You Positive?")
July 13—Cancer (Film—"Cancer—A Research Story")
July 20—Healing Team (Film—"Healing Team")
July 27—Acne (Film—"Acne")

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Placed by Michigan Health Council:

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Assisted by Michigan Health Council:

C. F. Villanueva, M.D.—Northville
Carl H. Birkelo, M.D.—Detroit
John E. Doolittle, M.D.—Traverse City
Michael Papo, M.D.—Chelsea
Walter B. Long, Jr., M.D.—Homer
Maurice H. Sorensen, M.D.—Bad Axe



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ILLUSTRATED — Welch Allyn Otoscope - Ophthalmoscope Set No. 983, complete with Sandura Case.

The new WELCH ALLYN instrument case that offers you far greater

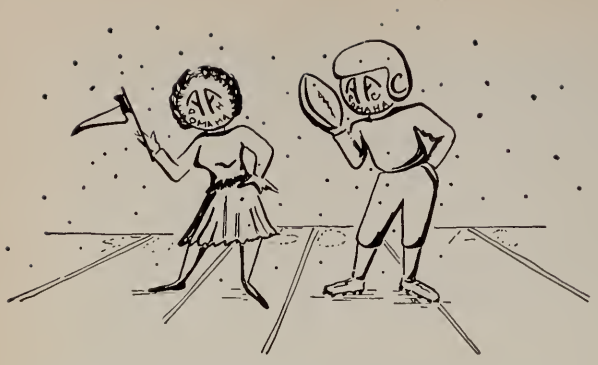
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The Sandura Case is molded in reinforced material to stand great shock or abrasion, with tarnish-proof soft rubber lining which protects instruments from shock. The entire case can be washed or sterilized with alcohol.

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Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

CLINICAL ENZYMOLOGY. Edited by Gustav J. Martin, Sc.D. Research Director, The National Drug Company, Philadelphia. 242 pages. Boston-Toronto: Little, Brown & Company, 1958, Price, $6.00.

This is a rather technical, but well-documented work on the chemistry and role of enzymes in clinical medicine.

The various phases of enzymatic action are discussed and it is a convenient reference source on the subject for the student. Fundamental principles necessary to an understanding of enzyme activity is well presented and clinical application is amply illustrated by case report summaries.

It is an acceptable addition to the medical library.

R.W.B.

DIETARY PREVENTION AND TREATMENT OF HEART DISEASE. By John W. Gofman, Ph.D., M.D., Donner Laboratory, University of California, Berkeley; Alex V. Nichols, Ph.D., Donner Laboratory, University of California, Berkeley: E. Virginia Dobbin, Senior Dietitian, E. V. Cowell Memorial Hospital, University of California, Berkeley. New York: G. P. Putnam's Sons, 1958. Price, $3.95.

Out of the laboratory of the University of California, where much of the work concerning the role of lipoprotein complexes in the etiology of atherosclerosis was done, comes this small practical manual on the prevention and treatment of heart disease by dietary means. It is meant for public consumption, as well as for the professional reader. The important facets in the knowledge of the rôle of lipids in heart disease are discussed at length in an interesting and readable manner.

A considerable portion of the book is devoted to practical dietary evaluation, recommended diets, and the use of vegetable oils in cooking. Many interesting and detailed recipes are given for the culinary enthusiast.

It is good reading and informative. The reviewer recommends it.

R.W.B.

OUTLINE OF ORTHOPAEDICS. By John Crawford Adams, M.D. (London), F.R.C.S. (England), Consultant Orthopaedic Surgeon, St. Mary's Hospital, London, and St. Vincent's Orthopaedic Hospital, Pinner; Assistant Editor, Journal of Bone and Joint Surgery. Second edition. 414 pages. Illus. Edinburgh and London: E. and S. Livingstone Ltd. Baltimore: The Williams and Wilkins Co., exclusive U. S. agents. 1958. Price, $8.00.

The second edition of Outline of Orthopaedics maintains the commendable spirit of the first, namely, to produce an outline of orthopaedics for those whose needs do not require a plunge into a sea of detailed information.

Admittedly aimed at medical students, it is a helpful bird's-eye view for any practitioner whose work

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A facility designed to rehabilitate or to aid the addict in arresting his addiction.

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Brighton Hospital meets the standards established by the Michigan State Board of Alcoholism and is recommended by that Board.

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brings him into occasional contact with orthopaedic problems.

English authors, and especially those in orthopaedics, seem unusually adept at reducing descriptions to brief, concise accounts, and this book is no exception. Fractures are excluded, but other traumatic problems are discussed plus general orthopaedic problems arranged by regions. This arrangement is especially helpful to those who could handily use the book as a guide in differential diagnosis when faced with an elusive problem limited to a specific region of the body.

The pictures and illustrations are profuse and well done, especially the diagnostic x-ray illustrations.

The book is not long, and the page sizes are small, so that it becomes easily mastered, which is what particularly recommends it to the library of the general practitioner as a reference work.

R.H.A.

FREE TIME—CHALLENGE TO LATER MATURITY. Edited by Wilma Donahue, Woodrow W. Hunter, Dorothy H. Coons, and Helen K. Maurice. Ann Arbor: The University of Michigan Press, 1958. Price, $4.50.

This is an interesting compilation of selected papers on the subject of leisure time and its meaningful utilization, coming out of the University of Michigan Tenth Anniversary Conference on Aging, June 24-26, 1957.

The book is thought-provoking reading for all, as we face the problems engendered by our increasing life span and the increasing leisure time and early retirement brought about by our modern materialistic age of mechanization. Proper use of leisure and the formation of wider horizons in our more productive years may well pay off in helping us to adjust in the later years when the problem of what to do with abundant free time suddenly faces us.

This is recommended reading for any intelligent thinking person.

R.W.B.

CORRELATIVE NEUROANATOMY AND FUNCTIONAL NEUROLOGY. By Joseph G. Chusid, M.D. Attending Neurologist, St. Vincent's Hospital, New York, and Joseph J. McDonald, M.S., M.Sc.D., M.D., Dean of Medical Faculty, American University of Beirut, Beirut, Lebanon, formerly Professor of Surgery, Columbia University, New York Ninth edition Illustrated by Ralph Sweet. Los Altos, California: Lange Medical Publications, 1958.

In this inexpensive handbook, the reader will find an excellent review of clinical neurology. There is a large section on the anatomy of the nervous system arranged and oriented from the functional and clinical viewpoint. The text is clear and concise and in many instances is presented in outline form. There are many illustrations scattered throughout the volume. These are clean, well drawn and clearly illustrate the subject. Included are chapters on "Electromyography," "Electroencephalography," and "The Radiological Examination." The chapter on "Muscle Innervation and Testing," includes an excellent series of illustrations to demonstrate test-

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ing of muscle strength in the major muscle groups. The appendix contains a helpful glossary of eponymic neurologic signs, symptoms, and syndromes. This book is not a substitute for standard neurologic texts, but is an excellent supplement and is warmly recommended to the beginner in clinical neurology and to the clinician who wishes to refresh his memory of the subject.

F.O.M.

OBSTETRICS AND GYNECOLOGY. By J. Robert Willson, M.D., Professor and Head of the Department of Obstetrics and Gynecology, Temple University School of Medicine and Temple University Medical Center, Philadelphia, Pa.; Clayton T. Beecham, M.D., Clinical Professor of Obstetrics and Gynecology, Temple University School of Medicine and Temple University Medical Center, Philadelphia, Pa.; Isadore Forman, M.D., Clinical Professor of Obstetrics and Gynecology, Temple University School of Medicine and Temple University Medical Center, Philadelphia, Pa.; Elsie Reid Carrington, M.D., Assistant Professor of Obstetrics and Gynecology, Temple University School of Medicine and Temple University Medical Center, Philadelphia, Pa. With 267 illustrations. St. Louis: C. V. Mosby Company, 1958. Price, $10.75.

This book is of special interest to the family physician, resident, and specialists in obstetrics and gynecology. It combines obstetrics and gynecology rather than treating each as an individual subject. For example, gynecological problems are introduced at appropriate points in the obstetric discussions. One interesting phase of this book is the treatment of emotional as well as physical problems as they occur in the management and etiology of certain conditions. Highly specialized details of diagnostic and surgical procedures are omitted, but the indications for these and their contraindications are discussed. The presentation on infertility is an excellent reference to those interested in this subject. Finally, this book includes an excellent bibliography at the end of each chapter for those who desire more comprehensive information of the subject at hand.

J.R.P.

CIBA FOUNDATION SYMPOSIUM ON THE CEREBROSPINAL FLUID. Production, Circulation, and Absorption. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch. and Cecilia M. O'Connor, B.Sc. 300 pages with 141 illustrations. Boston: Little, Brown and Company, 1958. Price, $9.00.

This small volume represents a detailed report of a symposium on the production, circulation, and absorption of cerebrospinal fluid held in May, 1957, under the auspices of the Ciba Foundation of London, England. Some fifteen different papers on various aspects of the subject, detailing much original research work are presented, followed by general discussion of the group of researchers following each paper.

This is a valuable contribution to the literature on this subject, most helpful to those actively interested in this particular phase of medical basic research. It is recommended as such, rather than for general reading.

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[2]KARPOVICH, P. V.; KEENEY, C. E., & ALEXANDER, A. A., "Physiological and Kinesiological Methods for Testing Footgear," p. 74, Dept. of Physiology, Springfield College, Springfield, Mass., June 29, 1957.



ESSENTIALS OF GYNECOLOGY. By E. Stewart Taylor, M.D., Professor and Head of the Department of Obstetrics and Gynecology, University of Colorado School of Medicine, Denver, Colorado. 343 Illustrations, 4 in Color. Philadelphia: Lea & Febiger, 1958. Price, $12.00.

This complete text and reference of the modern concepts of Gynecology is of most value to the young practitioners in gynecology, medical students and general practitioners. The treatment of the patient on her first visit is detailed completely from the history to the physical examination. From pediatric gynecology to the menopause, there are excellent illustrations both gross and microscopic. Of special interest are the chapters on the adrenal glands, pituitary gland and preventive medicine as they relate to gynecology. The treatment of carcinoma in the female is very inclusive. Of special interest is the instruction of the patient in self breast examination as well as the physician's role in the examination. The final chapters detail the usual operative techniques used in gynecology with excellent visual illustrations.—J.R.P.

CORTISONE THERAPY. Mainly Applied to the Rheumatic Diseases. By J. H. Glyn, M.A. (Cantab.), M.D., M.R.C.P., D.Phys Med., Consultant in Physical Medicine to the Prince of Wales and Tottenham Group of Hospitals. New York: Philosophical Library, Inc., 1957. Price, $10.00.

There is a great deal of practical knowledge regarding the steroids and their therapeutic effects and uses which can be obtained from spending one evening reading this small book. The appealing features to the reviewer were the conciseness of the material contained and the thoroughness with which this material is handled.

Dosage and indications are described in detail and the effects on all the tissues of the body completely handled. Such practical features as effects on pregnancy are handled as well as effects on wound healing and many other practical facts are completely contained.

This would be an ideal book for the Hospital Library for quick reference regarding the subject of cortisone therapy.

There is an excellent section in the book describing in detail the technique for intraarticular and soft tissue injection with adequately detailed figures.

G.A.Z.

BOOKS RECEIVED

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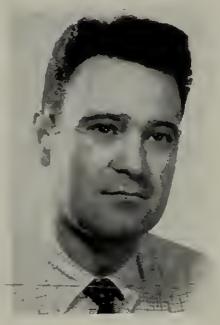
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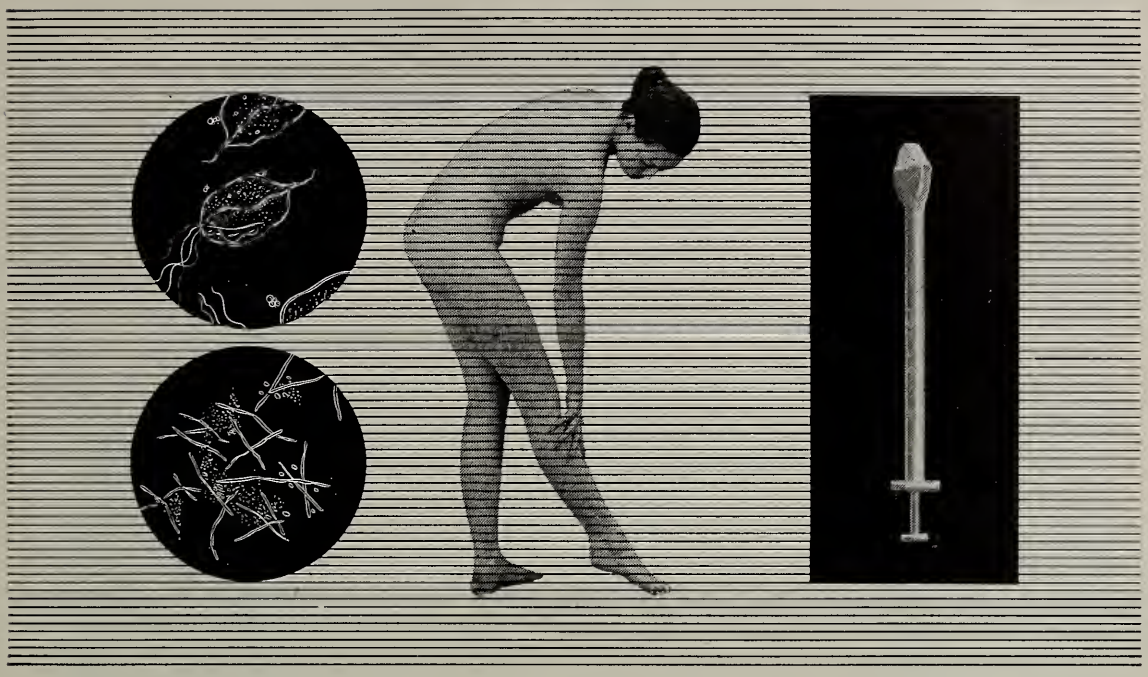
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1. Davis, C. H.: Trichomonas Vaginalis Infections: A Clinical and Experimental Study, J.A.M.A. *157:*126 (Jan. 8) 1955.
2. Pitt, M. B.: Leukorrhea, Causes and Management, J.M.A. Alabama *25:*182 (Feb.) 1956.
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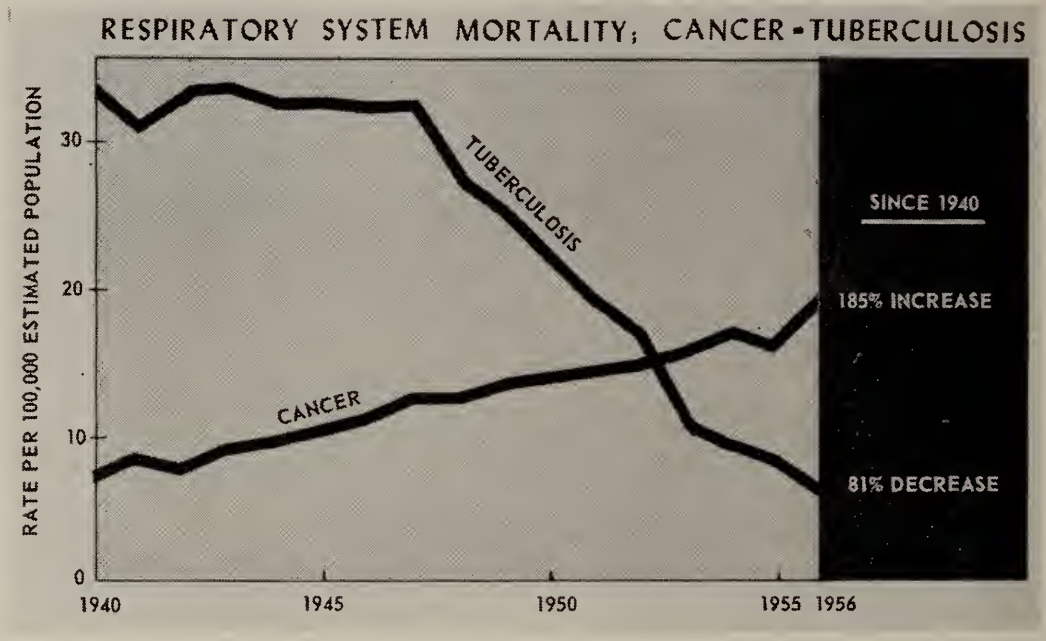
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Cancer Comment

LUNG CANCER AND CHEST X-RAY SURVEYS

By John A. Cowan, M.D.

Along with a gradually increasing trend in the total cancer death rate, the mortality rate for cancer of the respiratory system has increased considerably in the last sixteen years. For every 100,000 people, there were almost three times as many people dying of cancer of the respiratory system in 1956 (18.8) as in 1940 (6.6). Also cancer of the respiratory system has become an increasingly greater proportion of the total cancer problem representing 13.5 per cent of all the cancer deaths in 1956 as compared with 5.3 per cent in 1940. At the same time, however, there have been noticeable decreases in the death rates due to cancer of the stomach and of the uterus.



One of the major problems in attempts to lower the death rate from lung cancer is to find the lesions early enough to improve the prognosis. According to Rigler[1] the opportunity for detection of lung cancer in the curative stage is greater than for cancers of most other sites owing to its characteristically slow development, some lung cancers remaining asymptomatic and localized for a number of years. Chances for success of the curative procedures—pneumonectomy and lobectomy depend largely on the early detection and rapid identification of lung cancer. Rigler also believes that signs appear on the roentgenogram nine months and longer before the patient is aware of first symptoms. He is a firm believer in the value of x-ray in the diagnosis of this disease and states that in only two of 400 cases were symptoms present without roentgenographic evidence of disease in the lung. Confirmation of diagnosis is usually made by cytological demonstration of cancer cells in sputum or bronchial aspirate, final diagnosis by microscopic examination of tissue removed through bronchoscope, by percutaneous biopsy or, if necessary, by exploratory thoracotomy.

At the present time, most efforts to find lung cancer in the asymptomatic stage are related to x-ray programs. These include the periodic physical examination and x-ray program, pre-employment x-rays in industry, general hospital admission x-rays and the mass chest x-ray surveys of the general population. The latter, although carried out primarily for the detection of early tuberculosis, point up a significant number of suspect pulmonary neoplasms. The numerous chest surveys carried out in this country have not been

(Continued on Page 1348)

Dr. Cowan is Director, Division of Tuberculosis and Adult Health, Michigan Department of Health and a member of the Michigan Cancer Co-ordinating Committee.

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1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958
2. Editorial: *New England J. Med.* 258:48-49, 1958.

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LUNG CANCER AND CHEST X-RAY SURVEYS

(Continued from Page 1346)

strikingly successful in finding early cancer of the lung. A number of reasons have been proposed for this: (1) insufficient attention has been given to minor details, which often are quite apparent in retrospect after the lesion has become obvious,[1] (2) relatively poor participation in such surveys by older men,[2] (3) delayed and unnecessarily long follow-up after the report of the suspect lesion.

In 1957, the Michigan Department of Health and Detroit City Health Department mobile x-ray units took 399,364 70 mm. x-rays, primarily for the detection of undiagnosed active tuberculosis. Amongst other abnormalities, there were 453 suspect neoplasms reported, a rate of 1.1 per 1,000 70 mm. x-rays. Studies made by the Michigan Department of Health on the follow-up of x-ray suspect lesions have shown[3] that the time lapse from the survey film to final diagnosis ranged from one to forty-two weeks with an average of twelve weeks. Such long delays could well make the difference between the lesion being resectable or unresectable. In one particular survey of 35,000 persons, six cases of verified primary bronchogenic carcinoma were detected. Of the six, there were five in the silent pre-clinical stage at the time their x-rays were taken at the mobile units—before they would have come to light due to the development of symptoms severe enough to prompt the patient to seek medical care. (It is interesting to note that all the verified cases occurred in males over forty-five years of age.)

According to O'Keefe,[4] the percentage of carcinoma found in asymptomatic patients with solitary nodules in the lungs, varies from 17 to 78 per cent. The prognosis for cancer patients with this type of lesion is good if treatment is prompt. Therefore, delay is dangerous and unwarranted.

Summary

It is apparent, from a review of the literature and from studies made by the Michigan Department of Health, that mass chest x-rays of the general population can make a definite contribution to the prognosis for persons with cancer of the lung under certain conditions:

1. If the surveys are pointed at males over forty-five years of age (this is the same group in which tuberculosis incidence is high).

2. If, in the interpretation, sufficient attention is given to minor details in the film and, as several studies have shown, dual reading is instituted.

3. If the period of time from noting the original suspect lesion to final diagnosis can be significantly shortened.

CANCER MORTALITY TRENDS
Michigan Since 1940

CAUSE	NUMBER					RATE PER 100,000 POPULATION				
	1940	1945	1950	1955	1956	1940	1945	1950	1955	1956
Respiratory system	347	549	923	1,318	1,412	6.6	10.1	14.5	18.2	18.8

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1. Rigler, Leo G.: X-ray diagnosis of cancer of the lung. Post-Graduate Med., 18:361-73 (Nov.) 1955.
2. McClure, C. D.: Follow-up study of 844 neoplasm suspects identified in a mass chest x-ray survey. Public Health Report, 72:307-316 (Apr.) 1957.
3. Kingma, Stuart: Evaluation of contributions made by chest x-ray surveys in the detection of preclinical bronchogenic carcinoma. Extern report, Summer, 1957, Michigan Department of Health.
4. O'Keefe, M. E., Jr., et al.: Calcification in solitary nodules of the lung. Am. J. Roentgenol., 77:1023 (June) 1957.

Laboratory Examinations

Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis

Serology—Kahn and Wassermann

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provides bactericidal action

against coccal infections

provides successful short-term therapy

against endocarditis[1]

provides clinical effectiveness against

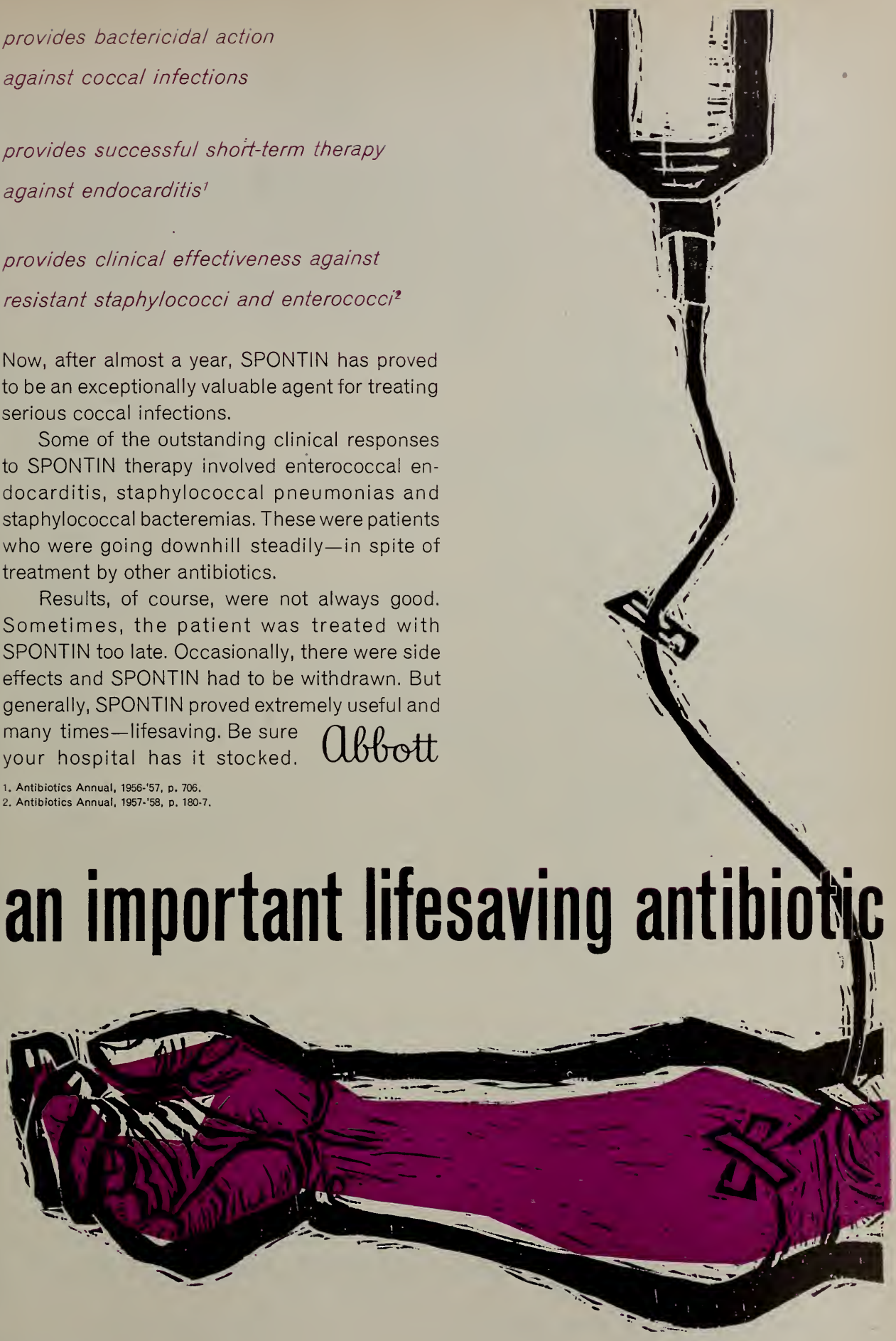
resistant staphylococci and enterococci[2]

Now, after almost a year, SPONTIN has proved to be an exceptionally valuable agent for treating serious coccal infections.

Some of the outstanding clinical responses to SPONTIN therapy involved enterococcal endocarditis, staphylococcal pneumonias and staphylococcal bacteremias. These were patients who were going downhill steadily—in spite of treatment by other antibiotics.

Results, of course, were not always good. Sometimes, the patient was treated with SPONTIN too late. Occasionally, there were side effects and SPONTIN had to be withdrawn. But generally, SPONTIN proved extremely useful and many times—lifesaving. Be sure your hospital has it stocked. Abbott

1. Antibiotics Annual, 1956-'57, p. 706.
2. Antibiotics Annual, 1957-'58, p. 180-7.

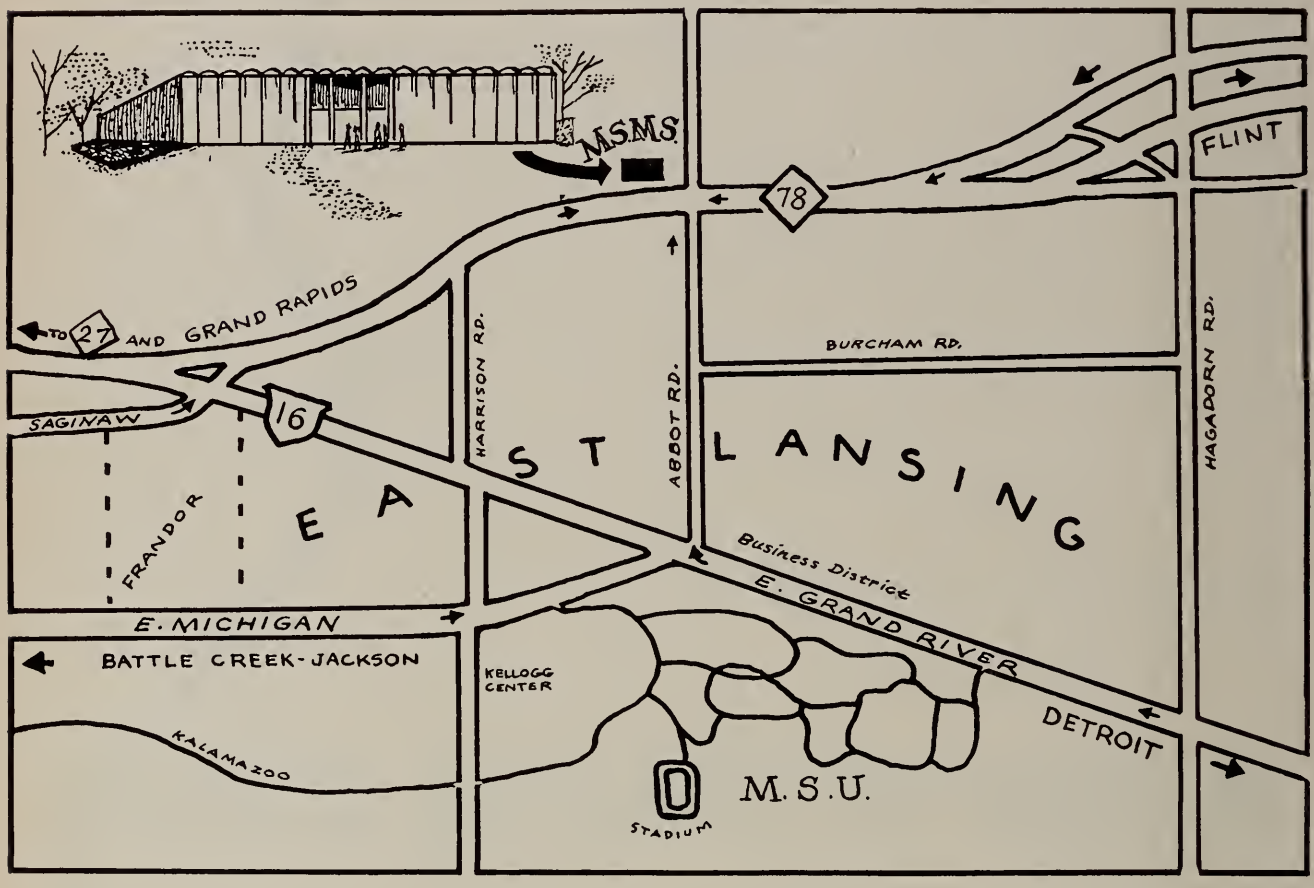


an important lifesaving antibiotic

You and Your Business

PROPERTY FOR NEW MSMS HEADQUARTERS PURCHASED

The dignified new headquarters building of the dynamic Michigan State Medical Society will rise on a large wooded site in East Lansing, as a result of The Council's action based on recommendations of the Committee on Site.



The Committee, chairmanned by Kenneth H. Johnson, M.D., Lansing, surveyed all available locations in the Lansing area over a period of many months. Their final selection met with the unanimous approval of The Council and received the highest praise from the architects.

Describing the property, G. B. Saltonstall, M.D., new MSMS president, said:

"The large parcel of land is particularly suited to MSMS needs since it is easily accessible to visiting members and yet is within 10 minutes of downtown Lansing. Enough land has been secured to provide parking for fifty cars and the surrounding land is restricted sufficiently so that MSMS will be assured of attractive and dignified company, architecturally speaking."

Fine residential areas surround the new property and at present the East Lansing Presbyterian Church has obtained nearby property for construction of a church in the near future.

The elevation of the property is such that the MSMS headquarters will be in commanding view both to approaching and departing traffic on the Lansing-Flint Highway M-78.

Yamasaki, Leinweber and Associates, Birmingham, architects retained by the Michigan State Medical Society, praised the location and natural topography of the site, pointing out that existing trees and ground cover would do much to lend an effect of maturity to the new edifice and immediately endow it with a patina of age normally taking years to acquire if transplantings were required.

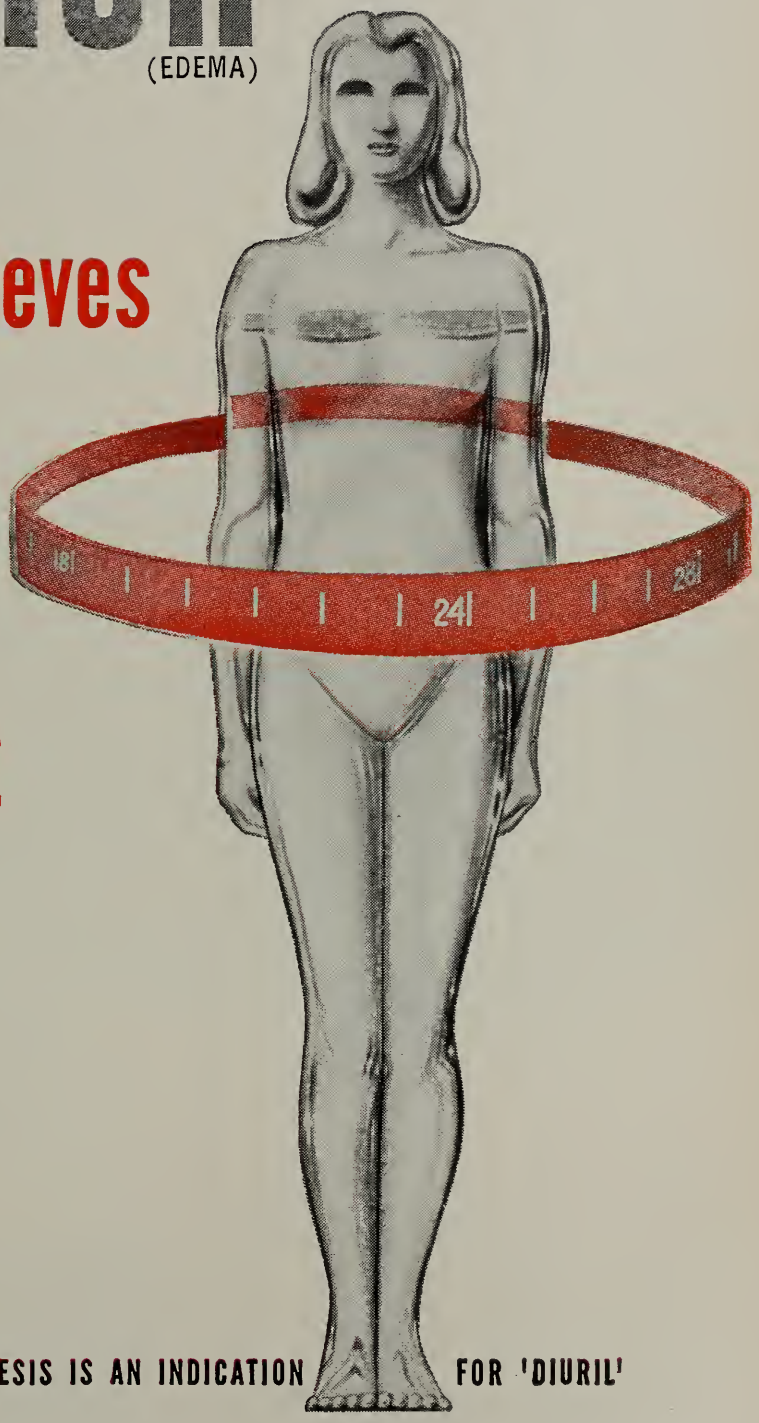
Minoru Yamasaki, of international renown, is most remembered for his recent award-winning designs including several important contributions to the new Wayne State University campus and his refreshing plan of the new St. Louis Airport and the Reynolds Metals Building, opposite Northland in Detroit.

(Continued on Page 1358)

tension

(EDEMA)

quickly relieves
Distress
Distention
Discomfort



ANY INDICATION FOR DIURESIS IS AN INDICATION FOR 'DIURIL'

(Continued from Page 1354)

GOVERNOR'S STUDY COMMISSION ON PREPAID HOSPITAL AND MEDICAL CARE PLANS

Medical services and costs of medical and hospital care in Michigan were checked in about 1,000 interviews throughout the state in September by The University of Michigan.

Families in twenty-three counties, selected to represent a cross-section of the state, were asked about their use of medical and hospital services, insurance coverage, and unmet medical needs.

Interviews started during the second week of September. Counties where interviews were taken included: Wayne, Macomb, Oakland, Kent, Genesee, Ingham, Eaton, Clinton, Bay, Saginaw, Muskegon, Ottawa, Kalamazoo, Jackson, St. Clair, St. Joseph, Van Buren, Midland, Huron, Grand Traverse, Iosco, Marquette, and Chippewa.

The study is part of a major analysis of Michigan hospital and medical economics conducted by the University of Michigan Bureau of Hospital Administration for the Governor's Study Commission on Pre-paid Hospital and Medical Care Plans. It is directed by Prof. Walter J. McNerney, director of the Bureau of Hospital Administration, and financed by the Kellogg Foundation.

Families selected for interviews received letters from the University of Michigan Survey Research Center explaining the purpose of the interviews and requesting their co-operation.

The survey will provide information on the health of the entire population, including costs of care, amount of insurance coverage, and use of medical facilities. This type of information is being secured for each member of the families interviewed.

To assure adequate data on aged people and those with large medical expenses, extra interviews will be taken with families which include someone over sixty-five or someone who has been in the hospital during the past twelve months.

Recommendations for changes in health facilities and insurance coverage to meet the needs of the people more adequately will be based on analysis of the survey findings. Results are expected to be made public next year.

SHORT POSTGRADUATE COURSES

John M. Sheldon, M.D., director of postgraduate medicine at The University of Michigan Medical Center, has announced that seventeen short courses will be offered to practicing physicians during the coming school year.

This marks the largest and most diversified offering in the twenty-seven-year history of the program. The courses are held in the Medical Center and generally run for three to five days.

Any licensed physician may participate. Last year, 1,086 doctors attended one or more of the postgraduate courses.

The courses to be offered during the 1958-59 school year are as follows:

Anatomy (Thursdays): Feb. 12-May 28; Basic Sciences: Sept. 28-June 5; Clinical Exercises for Practitioners (Wednesdays): Oct. 8-March 4; Clinical Internal Medicine (Thursdays): Oct. 2-March 5.

Internal Medicine—Gastroenterology: Nov. 10-14; Pulmonary Diseases: March 16-20; Recent Advances in Therapeutics: March 23-27; Disease of Blood and Blood Forming Organs: March 30-April 3; Diseases of the Heart: April 6-10; Electrocardiographic Diagnosis: April 13-18; Rheumatology: April 20-24; and Metabolism and Endocrinology: April 27-May 1.

Opthalmology: April 20-22; Otolaryngology: April 16-18; Pediatrics, Obstetrics, and Gynecology: Jan. 26-30; Diagnostic Radiology: April 6-10; and Clinical use of Radioactive Isotopes: as arranged.

AMA PLANS GROUP PRACTICE ROSTER

The AMA Council on Medical Service has been in the process of compiling information on group practices throughout the country and plans eventually to publish a directory of these groups. To date the council has information on 989 such groups in the United States, Hawaii, and Canada. Verification sheets have been sent out to those groups already on file.

Physicians who practice in groups of two or more—who have not received a check sheet—are invited to send the following information to the council: group practice name, address, office building (indicate whether rented or owned), number of physicians, and the specialties represented.

UNIVERSITY HOSPITAL, MEDICAL AND SURGICAL TRENDS

Hospital patients are taking more medicine, having fewer surgical operations and more babies, and are staying in the hospital a shorter length of time.

That is the sum of a report just released by The University of Michigan Medical Center on its activities during the fiscal year ending June 30.

Albert C. Kerlikowske, M.D., director, announced that the average length of stay of patients admitted to the U-M hospital reached a new low of 11.8 days. This compares with 12.23 days the previous year, and an average of 16.25 days ten years ago.

The total number of patients also declined slightly. During the year just ended, 20,487 persons entered the University Hospital compared with 20,963 last year.

Dr. Kerlikowske attributed the reduction in length-of-stay to rapid advancements in medical

(Continued on Page 1362)

more potent and comprehensive treatment than salicylate alone

assured anti-inflammatory effect of low-dosage corticosteroid[1] . . . additive antirheumatic action of corticosteroid plus salicylate[2-5] brings rapid pain relief; aids restoration of function . . . wide range of application including the entire fibrositis syndrome as well as early or mild rheumatoid arthritis

more conservative and manageable than full-dosage corticosteroid therapy—

much less likelihood of treatment-interrupting side effects[1-6] . . . reduces possibility of residual injury . . . simple, flexible dosage schedule

THERAPY SHOULD BE INDIVIDUALIZED

acute conditions: Two or three tablets four times daily. After desired response is obtained, gradually reduce daily dosage and then discontinue.

subacute or chronic conditions: Initially as above. When satisfactory control is obtained, gradually reduce the daily dosage to minimum effective maintenance level. For best results administer after meals and at bedtime.

precautions: Because SIGMAGEN contains prednisone, the same precautions and contraindications observed with this steroid apply also to the use of SIGMAGEN.



in any case it calls for

Sigmagen®

corticoid-salicylate compound tablets

Composition

METICORTEN® (prednisone)	0.75 mg.
Acetylsalicylic acid	325 mg.
Aluminum hydroxide	75 mg.
Ascorbic acid	20 mg.

Packaging: SIGMAGEN Tablets, bottles of 100 and 1000.

References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

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UNIVERSITY HOSPITAL, MEDICAL AND SURGICAL TRENDS

(Continued from Page 1358)

science. "New drugs, faster diagnoses and improved methods of treatment enable modern medimine to speed cures for patients."

As to the drop in total number of patients, the hospital director said this, too, could reflect general advances in the medical field. "But partly it seems to result from the economic slowdown in the metropolitan Detroit area and in Michigan in general."

Patients served by the University Medical Center are referred by doctors throughout the state.

Physical changes in the Medical Center during the past year were also listed. They include: the addition of a patient's chapel completed in time for services Christmas Day; a new kitchen capable of serving up to 10,000 meals daily to patients and staff; a Poison Information Service for emergency consultation by doctors in the state; and remodeling of the Heart Station, main lobby and patients' rooms.

Other figures in the annual report show that:

241,446 days of patient care were given during the year,
57,458 X-rays were taken,
201,715 patients were seen in the Outpatient Clinics.

Slightly more than 3,000 employes were needed to provide the varied professional and other services required in the hospital.

CLINICAL CONFERENCES

One of the most valuable medical courses offered at The University of Michigan draws hundreds of students each year, although it carries no academic credit and has never appeared in university catalogs.

It is a large-scale outgrowth of the traditional clinical conference held in hospitals and clinics everywhere. Once a week the doctors get together to discuss current cases, treatments and techniques.

At the University of Michigan Medical Center there are more than 140 such meetings each week. Most of them are open to any physician who visits the campus and who has a professional interest in the topic under consideration. Throughout the year, hundreds of such visitors—no accurate count has ever been kept—attend, and share in the discussions.

Often the visitors come from foreign nations, although the greatest number live in various parts of Michigan.

Arrangements for professional visitors to attend these clinical conferences are usually made by Dr. John M. Sheldon, director of the Department of Postgraduate Medicine. "The conferences," he explained, "are held in every department of the University of Michigan Medical Center, and have a measurable and direct benefit for each individual patient."

Dr. C. Thomas Flotte, assistant professor of surgery at the University of Michigan Medical Center, has prepared a brochure to describe this extra-curricula course in more detail, which was mailed in September to doctors throughout Michigan to provide them with a list of events and a brief description of each meeting.

Michigan doctors may also obtain a weekly calendar of the meetings which is prepared and distributed by the Health Science Relations office at the Medical Center.

Other services offered physicians by the University of Michigan Department of Postgraduate Medicine include a lecture series given at seventeen teaching centers in the state, a variety of on-campus refresher courses, and a teaching exchange program with seventeen affiliated hospitals in lower Michigan.

NON-SERVICE-CONNECTED

"Elimination of pensions for veterans with non-service-connected disabilities could save about $1.1 billion a year," says the Chamber of Commerce of the United States in its Washington Report of August 8, 1958.

"Reduction of government hospital care for this classification likewise would yield big savings. For instance, a new study shows that the cost for such patients is three times that for persons in a private hospital. Average stay in a private hospital is about seven days. In a government hospital, the typical veteran with a non-service-connected disability stays about thirty days.

"Additional savings could be effected by a clear definition of 'service-connected' disabilities. The present definition is often construed to include infirmities in no way resulting from performance of official duties.

"It was for such reasons that the Chamber last week called for re-evaluation of the hospital program in a statement to the House Veterans' Affairs Committee.

"The Chamber pointed out that a recent survey indicates that most veterans don't approve of pensions and hospital care for non-service-connected ailments. Veterans are taxpayers, too."

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

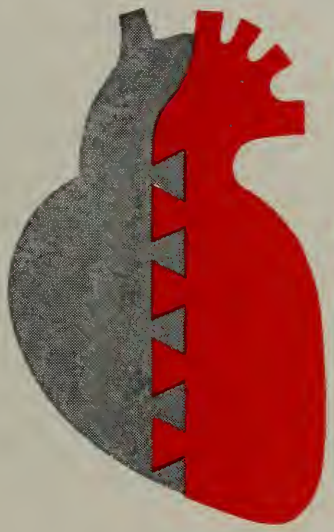
Meeting of August 20, 1958

- **Final Report on Seal of Assurance Plan** indidicated that the percentage of M.D. participation based on active plus life and emeritus members had reached as of August 18, 1958, a total of 65.5 per cent. Based on active members only, the percentage is 68.8 per cent.
- **Medicare,** Jay C. Ketchum, Executive Vice President of Michigan Medical Service reported on Washington, D. C., meeting of August 8 and changes in regulations made by Medicare officials including certain restrictions and cutbacks. The Council urged the American Medical Association to call an immediate meeting of all states

(Continued on Page 1364)

PREVENT
both cause and fear of
ANGINA ATTACKS

proven safety for long-term use



Miltrate*

NEW DOVETAILED THERAPY COMBINES IN ONE TABLET

prolonged relief from anxiety and tension with

MILTOWN® The *original* meprobamate, discovered and introduced by Wallace Laboratories

+

sustained coronary vasodilation with

PETN pentaerythritol tetranitrate a leading, long-acting nitrate

"In diagnosis and treatment [of cardiovascular diseases] . . . the physician must deal with both the emotional and physical components of the problem simultaneously."[1]

The addition of Miltown to PETN, as in Miltrate,"...appears to be more effective than [PETN] alone in the control of coronary insufficiency and angina pectoris."[2]

Miltrate is recommended *for prevention* of angina attacks, *not for relief* of acute attacks.

Supplied: Bottles of 50 tablets.
Each tablet contains: 200 mg. Miltown + 10 mg. pentaerythritol tetranitrate.
Usual dosage: 1 or 2 tablets q.i.d. *before meals* and at bedtime.
Dosage should be individualized.

For clinical supply and literature, write Dept. 48A

1. *Friedlander, H. S.: The role of ataraxics in cardiology. Am. J. Card.* **1**:*395, March 1958.*
2. *Shapiro, S.: Observations on the use of meprobamate in cardiovascular disorders. Angiology* **8**:*504, Dec. 1957.*

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HIGHLIGHTS OF THE COUNCIL

(Continued from Page 1362)

for the purpose of establishing a unified policy on Medicare.

- **Resignation of Councilor** J. F. Beer, M.D., St. Clair, due to illness. The resignation of the Councilor of the Seventh District was accepted with deep regret, effective September 28.
- **A. Hazen Price, M.D.,** Detroit, was selected as MSMS representative to the AMA Planning Conference on Medical Society Action in the Field of Aging, in Chicago, September 13-14; D. F. Kudner, M.D., Chairman of the Committee on Occupational Medicine was selected MSMS representative to the 19th Annual Congress on Occupational Medicine in Cincinnati, February 16-17-18, 1959.
- **President-Elect G. B. Saltonstall, M.D.,** Charlevoix, presented personnel of new Committee on Diabetes authorized by The Council at its July 1958 Session: W. M. LeFevre, M.D., Chairman, Muskegon; J. B. Rowe, M.D., Flint; G. W. Slagle, M.D., Battle Creek; H. F. Van Ark, M.D., Eaton Rapids; K. K. Vining, Jr., M.D., Grand Rapids; R. D. Warnke, M.D., Kalamazoo; H. L. Woodburne, M.D., Bay City; R. E. Wunsch, M.D., Grosse Pointe.
- **Henry Hosmer,** Detroit, was appointed as Consultant to the Medical Care Insurance Committee, and a special selection committee was appointed for the employment of a permanent secretary to MCIC.
- **List of prospective exhibitors** for 1959 Michigan Clinical Institute was approved by the Executive Committee.
- **Frank B. Walker, II, M.D.,** Detroit, was elected an Associate member of MSMS.
- **Correspondence** from the Michigan Society of Internal Medicine and the Committee for Evaluation of Michigan Medical Service was given consideration.
- **Michigan Academy of General Practice** Annual Fall Postgraduate Clinic, Detroit, November 12-13 and use of MSMS Addressograph were approved.
- **Legal Counsel Lester P. Dodd,** Detroit, presented progress report on New MSMS headquarters site.
- **Public Relations Council** reported on publicity and arrangements for the hour-long TV show preceding Annual Session—scheduled over station WJBK-TV Sunday, September 28, 5:30 p.m. on the subject: "Family Doctor." Also reported was the Annual Session press dinner scheduled for Detroit, September 24 at which some 50 science writers, radio, and television executives have accepted invitations to be present.
- **Committee reports** given consideration were: (a) Veneral Disease Control Committee, meeting of August 7, (b) Courses on Medical Economics and Ethics, August 13, (c) Public Relations Committee, August 17.
- **A vote of thanks** was extended to W. B. Harm, M.D., for many years of service as a member of The Council; his term is expiring.

The hospitality of Dr. and Mrs. G. B. Saltonstall was recognized by a rising vote of thanks.

UNIVERSITY OF MICHIGAN ENROLLMENT

The University of Michigan had a total of 47,708 students enrolled during academic year 1957-58.

According to the Office of Registration and Records, this figure represents the number of individuals attending the University during the fall and spring semester and summer session. Although a student may have been enrolled more than once during that period of time, he was only counted once in the total.

This is an increase of 515 from the 1956-57 total enrollment of 47,193.

Of the 47,708 students attending last year, 26,509 were Michigan residents.

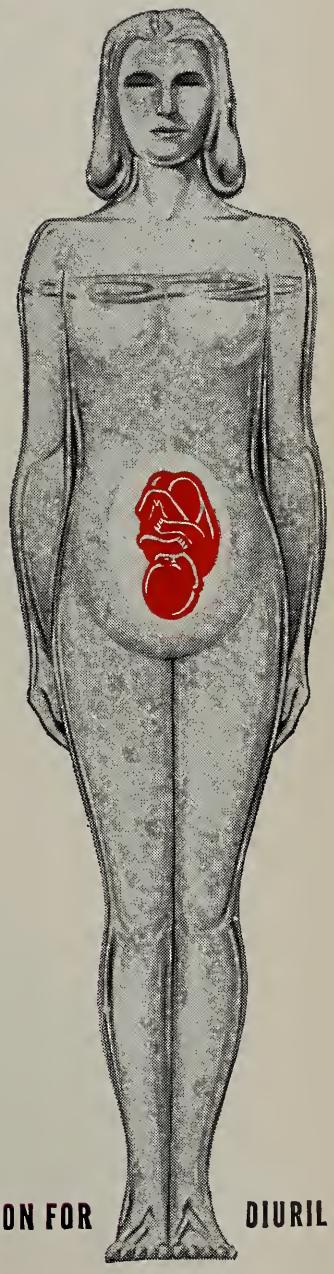
Following is a list of the ten counties sending the most students to the Ann Arbor campus: Wayne, 6,874; Washtenaw, 4,243; Oakland, 2,423; Genesee, 2,032; Kent, 1,804; Saginaw, 694; Macomb, 637; Muskegon, 501; Jackson, 468; and Calhoun, 441.

MEDICAL MEETINGS AND CLINIC DAYS

1958		
Autumn	MSMS Postgraduate Extramural Courses	Statewide
Nov. 12-13	Michigan Academy of General Practice—12th Annual Fall Postgraduate Clinic, Sheraton-Cadillac Hotel	Detroit
Dec. 2-5	AMA Clinical Session	Minneapolis
1959		
Jan. 28-30	Annual Meeting of the MSMS Council, Sheraton-Cadillac Hotel	Detroit
Jan. 30-31	MSMS County Secretaries-Public Relations Seminar,	
Feb. 1	Sheraton-Cadillac Hotel	Detroit
Feb. 11	Maternal Health Day	Flint
March 11-13	Michigan Clinical Institute, Sheraton-Cadillac Hotel	Detroit
Spring	MSMS Postgraduate Extramural Courses	Statewide

pregnancy

....caused an excellent diuresis, with reduction of edema, weight, blood pressure, and albuminuria...."



ANY INDICATION FOR DIURESIS IS AN INDICATION FOR DIURIL

Polio Group Announces Name Change with Expanded Program

On July 22, 1958, the National Foundation for Infantile Paralysis announced through the medium of a closed circuit telecast—in fifty-five major cities of this country, its intention of entering a variety of medical fields, including Arthritis and Rheumatism. The announcement also included the fact that the name of "National Foundation for Infantile Paralysis" was going to be dropped and that a new and much more inclusive title would be assumed, namely, "National Foundation."

It was originally planned to have this national telecast include a further announcement—that the National Foundation for Infantile Paralysis would assimilate the Arthritis and Rheumatism Foundation in its new program, and that all of the research, education and patient care activities of the Arthritis and Rheumatism Foundation and its Chapters would be taken over by the new National Foundation under the undaunted leadership of Mr. Basil O'Connor, President of the NFIP and one-time law partner of Franklin D. Roosevelt.

Mr. O'Connor was previously associated with the American Red Cross and his main claim to distinction has been in the field of fund-raising, entirely outside of and divorced from the field of Community Fund type of solicitation. Mr. O'Connor does not believe in Community Chests, Red Feather or United Fund types of community solicitation because it has always been to his advantage to direct the campaign for Polio funds as a distinct and separate appeal in January of each year. The emotional appeal of the disease "Polio" had been developed to such a point that the NFIP was able to collect 67 million dollars during their peak year, which was raised through the dedicated efforts of the members of its 3,100 county fund-raising chapters.

During the past few years, however, the income from public solicitation has dwindled down to 35 million in 1958, and it was obvious that the Polio group would have to disband or develop an interest in other diseases—to maintain their staff of over a thousand employes—including O'Connor —in a permanent state of employment. Although the development of the Polio vaccine caused a marked decrease in campaign income, the increased acceptance and national popularity of United Fund type of solicitation having one campaign yearly for all organizations, was probably another cause for this greatly decreased income of the Polio Foundation.

For several months before the date of this national telecast announcement of the NFIP, there had been numerous informal discussions between Floyd Odlum, President of the Arthritis Foundation, and Mr. O'Connor of the Polio Foundation. There had been rumors that the Polio group were seeking new fields to conquer and were focusing their attention on Arthritis and Rheumatism as a "natural" for public appeal for funds.

Mr. Odlum of the Arthritis Foundation consulted with Mr. O'Connor concerning the obvious possibility of their being two organizations in the same medical field, which naturally means that there would be national public solicitation by two individual groups for the same disease. Mr. O'Connor informed Mr. Odlum that diseases are not the personal property of any one group, and that it really did not make any difference whether the Arthritis Foundation wished to merge with the Polio group or not—because the NFIP had already decided to announce their intent to enter the field of Arthritis—and that they were going to focus their attention only on childhood arthritics and rheumatics. This move was made obviously to retain the emotional appeal of childhood for fund-raising purposes. Since juvenile arthritics comprise only about 4 per cent of the total number of arthritics, Mr. O'Connor will be using this 4 per cent of the total problem to extract money from a public which is already reaching a saturation point in relation to public solicitation drives.

A number of the officers of the Arthritis Foundation became sympathetic to Mr. O'Connor's plans because he indicated graciously that he might even continue to assist financially the present research projects already in operation by the Arthritis Foundation, but the decision on this point would have to be brought to the attention of his board "after" the merger. The Polio Foundation has never had any Doctors of Medicine on its national board that directs its policies of administration, and Mr. O'Connor stated that if there were to be a merger of these two Foundations, there still would not be any doctors on his board.

Floyd Odlum of the Arthritis Foundation stated in a letter dated June 10, 1958 to Mr. O'Connor, "Inclusion of Medical members as voting members of our Chapter boards and on our National board of directors has been eminently satisfactory and has strengthened our organization. It seems to us unfortunate that the policies of the Polio Foundation and also your New 'National Foundation' do not provide for some Medical members on the governing board."

Mr. O'Connor's efforts in attempting to direct polio vaccination on a national scale is recalled because of the unsuccessful methods of distribution of the vaccine and because of the national

(Continued on Page 1370)

ACHROCIDIN®

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A versatile, well-balanced formula for treating common upper respiratory infections, particularly during respiratory epidemics; when bacterial complications are observed or are likely; when patient's history is positive for recurrent otitic, pulmonary, nephritic, or rheumatic involvement.

CHECKS SYMPTOMS: Includes traditional components for rapid relief of the traditional nonspecific nasopharyngitis, symptoms of malaise, chilly sensations, inconstant low-grade fever, headache, muscular pain, pharyngeal and nasal discharge.

Available on prescription only.

Adult dosage for ACHROCIDIN Tablets and new caffeine-free ACHROCIDIN Syrup is two tablets or teaspoonfuls of syrup three or four times daily. Dosage for children according to weight and age.

TABLETS *(sugar coated)*

Each Tablet contains:

ACHROMYCIN® Tetracycline	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
Salicylamide	150 mg.
Chlorothen Citrate	25 mg.

Bottles of 24 and 100.

SYRUP *(lemon-lime flavored)*

Each teaspoonful (5 cc.) contains:

ACHROMYCIN® Tetracycline equivalent to tetracycline HCl	125 mg.
Phenacetin	120 mg.
Salicylamide	150 mg.
Ascorbic Acid (C)	25 mg.
Pyrilamine Maleate	15 mg.
Methylparaben	4 mg.
Propylparaben	1 mg.

Bottle of 4 oz.



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(Continued from Page 1368)

confusion resulting from policies established by Mr. O'Connor's non-medical governing board.

At a meeting held in San Francisco June 22 of this year, the Medical Directors of all of the 50 chapters of the Arthritis Foundation took definitive action against any merger with the Polio Foundation and suggested that the National Arthritis and Rheumatism Foundation expand its present program and continue its activities of research, education and patient care.

At a meeting in New York City on July 16 of the lay and medical representatives of the Arthritis Chapters, approximately 80 per cent voted an unqualified "No" in relation to the proposed merger, assimilation or amalgamation. Mr. O'Connor was invited to this meeting, but stated that there could be no particular reason for his attendance as he had already stated his position, and further, did not send an official representative to this meeting. A premature newspaper announcement of the merger between the two Foundations emanated from Chicago, July 6, but Mr. O'Connor denied that was "planted" so as to forestall any opposition to the merger.

Through Basil O'Connor, the new "National Foundation" announced that they would continue to take care of polio patients and to continue their research in the general category of virus diseases, and, in addition, would interest themselves in the fields of arthritis research, professional education, and also patient care through the age of 18. They will also include in their field of interest, birth defects such as club foot, cleft lip and palate and numerous other congenital malformations. The new National Foundation has stated its intention also to offer aid to patients in three areas of birth defects involving the central nervous system: Spina bifida, Encephalocele and Hydrocephalus.

One may conclude on observing the numerous activities of the new National Foundation in its efforts to assimilate the Arthritis Foundation, and in addition to the avowed personal antagonism of Mr. O'Connor to United Funds, that it appears a good possibility that Mr. O'Connor may plan sometime in the future in developing a "National United Foundation" which would include all diseases, and thereby attempt to force all local Community Chest, Red Feather and Community Fund organizations to disband.

At the present time it is estimated that there are about 150,000 polio victims compared to over 10 million arthritics in this country—so it is quite apparent that if the new "National Foundation" expects to move into the field of direct care to arthritics, as they did with polio cases without regard for ability of patients to pay their own way, that they would have to raise "billions" instead of "millions"—as the known expense involved in rehabilitation of arthritics is an extremely costly operation—and yet the Polio Foundation has had no experience in this type of care.

The Polio Foundation has now changed its name to the National Foundation, and as such will campaign for funds in January, 1959—listing all of their various medical interests—but there is no assurance that the money they will collect from the highly emotional appeal of the childhood arthritic will be used only for arthritis—as it can easily be diverted administratively to any of their new diversified interests.

The Polio Foundation admittedly has done an outstanding job of fund-raising and assisting in the research that produced the vaccine for polio, but the potential ability of the Polio Foundation to continue to function effectively, in view of their obvious complete lack of experience in their many new proposed medical projects and markedly reduced income of the past several years, will be greatly attenuated because it has already accomplished its purpose—and should probably cease to be a functional organization.—J. J. Lightbody, M.D., in *Detroit Medical News*, August 11, 1958.

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tops with adults, too.

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Vitamin A	5,000 Units*
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Vitamin E	2 Units†
Vitamin B-1	2.5 mg.
Vitamin B-2	2.5 mg.
Vitamin B-6	1 mg.
Vitamin B-12 Activity	3 mcg.
Panthenol	5 mg.
Nicotinamide	20 mg.
Folic Acid	0.1 mg.
Biotin	30 mcg.
Rutin	12 mg.
Calcium Carbonate	125 mg.
Boron	0.1 mg.
Cobalt	0.1 mg.
Fluorine	0.1 mg.
Iodine	0.2 mg.
Magnesium	3.0 mg.
Manganese	1.0 mg.
Molybdenum	1.0 mg.
Potassium	2.5 mg.

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Medicolegal Forms

Presented as the third in the series of Medicolegal Forms selected by MSMS Legal Counsel from "Medicolegal Forms with Legal Analysis," prepared and published by the Law Department of the American Medical Association, are two simple but important forms. The first is a general form of consent that is intended for use, primarily, in the administration of hazardous drugs or treatment ordinarily provided in the doctor's office. The second relates to the administration of x-ray therapy. Legal Counsel again cautions that standard printed forms should never be used indiscriminately nor should they be relied upon blindly. In case of doubt—consult your lawyer.

CONSENT TO TREATMENT

I, having been fully informed by Dr._____

of the risks and possible consequences involved in treatment by means of_____

_____ for the relief of_____

_____, nevertheless

hereby authorize Dr._____to administer such treatment

to me, and agree to hold him free and harmless for any claims, or suits for damages for any

injury or complications whatever which may result from this treatment.

Signed_____

Date_____

Witness_____

CONSENT TO X-RAY THERAPY

PATIENT_____AGE_____

DATE_____TIME_____A.M. P.M. PLACE_____

I hereby request and authorize Dr._____

and whomever he may designate to assist him to administer X-ray treatment to_____

_____and to continue such treatment from time to

(Name of patient or "myself")

time as he may deem advisable. The effect and nature of this treatment have been fully explained to me, as well as the possibility of injury. Notwithstanding the fact that there are risks of injury inherent in this treatment, I voluntarily accept the risks involved.

Signed_____

Witness_____



Make new Panalba*

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your broad-spectrum antibiotic of first resort

effective against more than 30 common pathogens, even including resistant staphylococci.

Available forms:

1. Panalba Capsules, bottles of 16 and 100 capsules. Each capsule contains:

Panmycin phosphate (tetracycline phosphate complex) equivalent to tetracycline hydrochloride 250 mg.
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Dosage:

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Usual adult dosage is 2 capsules q.i.d.

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For the treatment of moderately acute infections in infants and children, the recommended dosage is 1 teaspoonful per 15 to 20 lbs. of body weight per day, administered in 2 to 4 equal doses. Severe or prolonged infections require higher doses. Dosage for adults is 2 to 4 teaspoonfuls 3 or 4 times daily, depending on the type and severity of the infection.

Physical Diagnosis Motion Films

Wayne State University College of Medicine is redoing and revising some teaching films developed years ago which have proved most useful. Frederick J. Margolis, M.D., Kalamazoo, Director of Audio-Visual Education for Wayne, produced the original films and is now supervising the present project.

Wayne is piloting a project in which some of the top teachers in American medicine are selected to demonstrate their special talents in their own field, on film and in color. This film material, when finished, will be used for teaching in the medical schools and will be offered to the county medical societies throughout the country as physical diagnostic material of the finest type.

Dr. Franklin Top of the University of Iowa will participate as an authority on contagious disease, Dr. Abraham Ornsteen of the University of Pennsylvania on diseases of gait, Dr. George E. Shambaugh of Northwestern University on diseases of the ear, and Dr. C. G. Van Riper of Western Michigan University, Kalamazoo, on disorders of speech together with Wendell Johnson of the University of Iowa.

Dr. Gordon Myers and Dr. Muir Clapper of Wayne are consultants to the project, and Dean Gordon Scott has been very active in helping obtain funds through the Ciba Corporation to go ahead and produce these films. It is a credit to Wayne to put together physical diagnostic material which includes the finest teachers in America that can be presented right in the home town of the practitioner of medicine. This is a real step in the right direction to bring top talent to the physician without making him travel across the country to get a good exposure.

Dr. Gunnar Gundersen, President of the American Medical Association, writes as follows:

Dear Dr. Margolis:

I have just learned of your plans to produce a new series of motion pictures on physical diagnosis for use in post graduate education and in medical schools.

The American Medical Association, as you know, has made excellent use of the original films in this series in answering requests for teaching materials on basic subjects. Our film library estates that 350 requests a year are received for these motion pictures.

Wayne University College of Medicine is to be congratulated for its decision to re-do the series. Our Council on Medical Education and Hospitals tells me there is great need for first class teaching material on film which would be available not only to medical schools but also to doctors unable to attend formal post graduate courses.

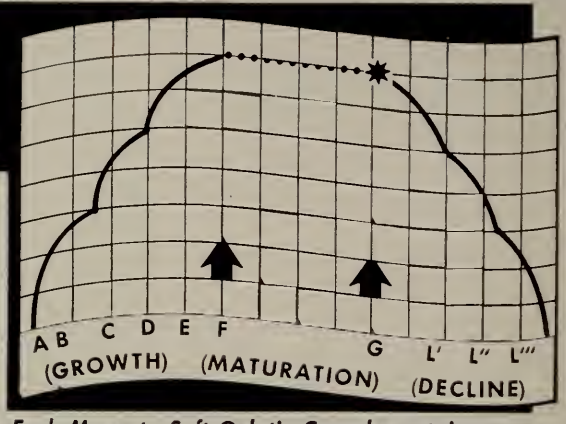
I feel your idea to utilize top medical teaching talent from other schools has great merit. Such diversification in the production will increase the value of the films manyfold.

Please feel free to call on members of the American Medical Association staff if they can be of help to you in following through on this project.

Sincerely yours,
GUNNAR GUNDERSEN, M.D.

...to postpone the "G" point*...

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For patients over 40, The G POINT (point of declination in life) can be postponed!

Properly balanced Androgen — Estrogen — nutritional therapy may prevent premature aging and damage of gonadal decline and nutritional inadequacy.

Complaints of symptoms such as muscular pain, fatigue, irritability, and poor appetite in the patient over 40 may be the first indications of three major stress factors in the aging process: (1) Gonadal Hormonal Imbalance, (2) Nutritional Inadequacy and (3) Emotional Instability. GERITAG is especially formulated to guard against premature damage and to delay the degenerative process.

Rx GERITAG in preventive geriatrics.

Each Magenta Soft Gelatin Capsule contains:

Methyltestosterane	2 mg.	Thiamine Hcl.	2 mg.
Ethinyl Estradial	0.01 mg.	Riboflavin	2 mg.
Ferrous Sulfate	50 mg.	Pyridoxine Hcl.	0.3 mg.
Rutin	10 mg.	Niacinamide	20 mg.
Ascorbic Acid	30 mg.	Manganese	1 mg.
B-12	1 mcg.	Magnesium	5 mg.
Molybdenum	0.5 mg.	Iodine	0.15 mg.
Cobalt	0.1 mg.	Potassium	2 mg.
Capper	0.2 mg.	Zinc	1 mg.
Vitamin A	5,000 I.U.	Choline Bitartrate	40 mg.
Vitomin D	400 I.U.	Methianine	20 mg.
Vitamin E	1 I.U.	Inasitol	20 mg.
Cal. Pantothenate	3 mg.		

Also available as injectable.

*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

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PR REPORT

IN-SERVICE TRAINING PROGRAM FOR THE MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

The accompanying schedule outlines the courses offered in the new training program being offered to members of the Medical Assistants Society by the University of Michigan Extension Service. The program consists of six courses in three major areas of study—medical, business administration and the humanities. The medical section is being co-ordinated by Harry A. Towsley, M.D., Ann Arbor.

The Michigan State Medical Society assisted in arranging for the new program with the Assistants Society.

IN-SERVICE TRAINING PROGRAM FOR THE MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

	Pontiac	Flint	Jackson	Battle Creek	Lansing	Detroit
Spring 1958	Medical Information for Medical Assistants		Medical Office Management		Psychology of Human Behavior	
Fall 1958	Nursing Information for Medical Assistants	Medical Office Management	Law and Economics in Medical Office Administration	Medical Information for Medical Assistants	Dynamics of Human Behavior	Psychology of Human Behavior
Spring 1959	Psychology of Human Behavior	Law and Economics in Medical Office Administration	Medical Information for Medical Assistants	Nursing Information for Medical Assistants	Medical Office Management	Dynamics of Human Behavior
Fall 1959	Dynamics of Human Behavior	Medical Information for Medical Assistants	Nursing Information for Medical Assistants	Psychology of Human Behavior	Law and Economics in Medical Office Administration	Medical Office Management
Spring 1960	Medical Office Management	Nursing Information for Medical Assistants	Psychology of Human Behavior	Dynamics of Human Behavior	Medical Information for Medical Assistants	Law and Economics in Medical Office Administration
Fall 1960	Law and Economics in Medical Office Administration	Psychology of Human Behavior	Dynamics of Human Behavior	Medical Office Management	Nursing Information for Medical Assistants	Medical Information for Medical Assistants
Spring 1961		Dynamics of Human Behavior		Law and Economics in Medical Office Administration		Nursing Information for Medical Assistants

A VIEW OF FAMILY PHYSICIANS

Despite the increasing importance of specialists, the family physician remains a key figure in modern medical practice. He is medical advisor and manager for the overwhelming majority of the population, and for many he is the sole point of contact with the medical profession. As a result, he is the single physician most likely to influence the public's conception of medical practice.

The average family doctor is a man in his forties, a well-established general practitioner in private practice, deriving his income from fees. He treats twenty-six patients a day, spending more than eight hours on home and office calls.

These and other findings about family physicians emerge from a recent survey by the National Opinion Research Center at the University of Chicago in co-operation with the Health Information Foundation.

The income of these family physicians showed considerable variation. During a twelve-month period, 21 per cent netted (before income tax, but after deduction of professional expenses) less than $10,000 from their practice; 45 per cent netted between $10,000 and $20,000; and 33 per cent netted $20,000 or more. The median net income before taxes was slightly higher than $15,000. Doctors in their fifties usually reported higher income than those in other age categories.

Most of the physicians maintain their offices away from homes. Nearly all employ one or more assistants who are other than M.D.'s.

For the majority, home and office calls comprise the bulk of the workday. When allowance is made for hospital visits, the estimated median work-week of these physicians comes to roughly sixty hours.

Only one in fourteen makes no house calls. Most (four out of five) are generally available at night and Sundays for emergency house calls.

At the time the study was made, two out of three family physicians charged under $4 for a routine office call. The $3 office-call charge was

(Continued on Page 1384)



Safe, too:
BONADOXIN doesn't "stop" the patient. It is free of side effects commonly associated with overpotent antinauseants. Goldsmith, reporting on 620 controlled cases, states that "toxicity and intolerance [are] zero."[2]

BONADOXIN

DOESN'T STOP THE PATIENT!

Now available in tablet or drop form.

Dosage: usually one tablet or one tsp. (5 cc.) at bedtime. Severe cases may require another dose on arising.

Supplied: tiny pink-and-blue tablets, bottles of 25 and 100. Bonadoxin Drops in 30 cc. dropper bottles.

Each tiny pink-and-blue Bonadoxin tablet contains:

Meclizine HCl (25 mg.)
...for symptomatic relief
Pyridoxine HCl (50 mg.)
...for metabolic action and prompt antinauseant effect.

Infant colic?
Non-narcotic Bonadoxin Drops stop colic in about 85% of cases.
Each cc. contains:
Meclizine Dihydrochloride...8.33 mg.
Pyridoxine Hydrochloride...16.67 mg.

Dosage:

under 6 months	0.5 cc.	2 or 3 times daily, on the tongue, in fruit juice or water
6 months to 2 years	1.5 to 2 cc.	
2 to 6 years	3 cc.	
adults and children over 6 years	1 teaspoon (5 cc.)	

Supplied:
fruit-flavored, clear green syrup in 30 cc. dropper bottles.

References: 1. Drugs of Choice 1958-1959, St. Louis, C. V. Mosby Company, 1958, p. 347. 2. Goldsmith, J. W.: Minnesota Med. *40*:99 (Feb.) 1957.

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RESEARCH

Research directed at the creation of new, more effective therapeutic agents and support of basic research concerned with new therapeutic concepts are obligations that confront pharmaceutical industry.

Ordinarily small pharmaceutical concerns do not engage in these activities.

It is with pride, therefore, that we wish to point toward the fact that Meyer and Company are presently supporting four research projects in recognized institutions in the United States and Canada, and that these grants are proportionately far in excess of the funds ordinarily allocated by other pharmaceutical concerns.



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A VIEW OF FAMILY PHYSICIANS

(Continued from Page 1380)

the fee mentioned most often. For house calls, the most common charge was $5.

Fees were higher in the West, in large population centers, and among doctors in their forties and fifties.



Ionia-Montcalm doctors and the Michigan State Medical Society gave 1200 free blood types at the booth they sponsored at the Ionia Free Fair, August 4 through 9. This Public Relations project distributed Family Health Record Booklets and Emergency Record Cards. Participating in the event were the Auxiliary to the Ionia-Montcalm County Medical Society, Red Cross Nurses, Gray Ladies and Medical Assistants. *(Above)* R. E. Campbell, M.D., Ionia, inspects the Clinitron supplied by the Michigan Department of Health.

Of the doctors interviewed, 37 per cent said they charged all patients alike while 67 per cent said they regulate their fees to some extent by their judgment of the patient's ability to pay. Doctors in the West and members of specialty societies are especially likely to gear fees to the patient's ability to pay.

Most family physicians maintain hospital connections—seven out of eight.

The survey indicated that as far as the general public is concerned the family physician is still the focal point of medical care and still provides the major image of what a medical practitioner is like.

The "soundness" of social security depends on compulsion, high employment, and no wars.

Say you saw it in the Journal of the Michigan State Medical Society

Achromycin* V

*TETRACYCLINE WITH CITRIC ACID LEDERLE

ASSURES EVERY PATIENT PRECISE ANTIBIOTIC ACTION UNDER THE VARIED CONDITIONS OF REALISTIC CLINICAL PRACTICE

produces optimal gastric conditions

Ideally, most antibiotics are given on an empty stomach. Since citric acid helps control unfavorable variances in gastric content, conditions in the stomach are optimal with ACHROMYCIN V tetracycline with citric acid.

prevents interference with absorption

Sequestering of antibiotic molecules by free metallic ions, always present in the intestinal tract, can deprive patients of a full therapeutic dose. The three active carboxyl radicals which protect the action of ACHROMYCIN V trap these free cations and allow uninhibited antibiotic absorption.

provides for peak antibiotic action

At the site of infection where, in essence, all antibiotics are proved, ACHROMYCIN V combats a wide range of pathogens under optimal tissue conditions. Citric acid, a factor of medically established value in the natural acid base regulating mechanism of the G.I. tract, facilitates a more complete, and rapid antibiotic action.

MORE DOCTORS PRESCRIBE ACHROMYCIN V THAN ANY OTHER BROAD-SPECTRUM ANTIBIOTIC

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AMA Washington Letter

THE MONTH IN WASHINGTON

When the Congress that is elected in November goes to work next January 7, it will have before it a half dozen important health-medical issues that the last Congress took some interest in but didn't resolve. They include hospitalization under social security, tax-deferment on annuities, loans and mortgage guarantees for hospitals and nursing homes, aid to medical schools and amendment of Veterans Administration's hospitalization procedures.

The issue of hospitalization under social security—the Forand bill principle—will come into the spotlight shortly after the new session starts. Under instructions from the House Ways and Means Committee, the Department of Health, Education, and Welfare will complete a study on the problems of financing hospital care for the aged before next February 1. Some study of medical costs may also be included.

Decision to move ahead with a study of medical care costs for the aged was reached by the committee at the same time it excluded the Forand idea from the social security bill enacted during the summer. HEW was told to pay particular attention to the possibility of increasing OASI taxes, and with the money purchasing health insurance (nonprofit or commercial) to take effect upon retirement or disability. This would differ from the Forand plan in that health care would be financed through insurance, and not paid for directly by the Federal government.

The Keogh bill to allow doctors and other self-employed to defer income taxes on money put into retirement funds passed the House with very little opposition, but encountered difficulty in the Senate. It was defeated there in the closing days, and under unusual circumstances. Policy committees of both parties decided to oppose the bill as too costly, and the vote came in the course of a complicated legislative maneuver that could not be used as a test of whether individual Senators favored or opposed the bill itself.

An effort was made late in the session to authorize grants to medical schools for building and equipping teaching as well as research facilities. The bill extending the research grants program also would have allowed use of the grants for "multi-purpose" structures (teaching and research) if emphasis were on research. However, for fear this change would hold up the simple extension bill, it was dropped off before the bill reached the House floor. Sponsors of aid to medical education will be back next year and campaign on this issue alone.

Legislation for U. S. guarantee of nursing home mortgages, strongly supported by the American Medical Association, fell by the wayside in the House during the closing hours of the session, after having cleared the Senate with no trouble whatever. This also will be pushed next year, and may have a better chance of passage because of the growing emphasis on need for solving the problems of the aged.

Far too late for passage, Chairman Olin Teague's House Veterans Affairs Committee reported out a bill that would make a number of changes in VA hospitalization procedures, liberalizing some and tightening up on others. The bill also would require VA to open 5,000 beds over which Mr. Teague and VA Administrator Whittier have been squabbling for months, the latter maintaining that beds aren't needed. That issue still is unresolved, inasmuch as the bill didn't pass.

Congress did roll out a sizable list of medical-health laws. It ordered the calling of a 1961 White House Conference on the Aging, gave Food and Drug Administration authority to enforce its pre-testing standards on foods to which chemicals and other substances have been added. authorized loans as well as grants under the Hill-Burton program, authorized grants for the country's schools of public health and for civil defense purposes, raised military and VA physicians' pay, and required labor and management health and welfare plans to make reports and open up their books for inspection by members.

American Medical Association was able to persuade the Department of Defense and the administration to retain the post of Assistant Secretary (health and medical) in the reorganization of the department. In legislation passed by Congress to bring about the reorganization, one of the assistant secretary posts would have been eliminated, and the medical assistant was marked for down-grading. However, Secretary McElroy eventually announced that the position would be continued.

Even before Congress adjourned, it was clear that trouble was in sight for Medicare because of inadequate appropriations and instructions from Congress not to exceed the appropriation. To keep within the limitation, if possible, Defense Department was channelling many thousands of service families to military facilities, and at the same time limiting the scope of care permitted in civilian facilities.

Rheumatoid Arthritis

multiple compressed tablets

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THE FIRST MEPROBAMATE-PREDNISOLONE THERAPY



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MEPROLONE is the one antirheumatic-antiarthritic that exerts a simultaneous action to relax muscles in spasm and to suppress joint inflammation . . .



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Therefore, MEPROLONE does more than any single agent to help the physician shorten the time between disability and employability.

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Editorial Opinion

HOW SOCIALISM WORKS

Two Pittsburgh, Pa., physicians recently returned from a professional visit to Scotland, Sweden and the Scandinavian countries, have brought back with them the usual disheartening story encountered everywhere there is socialized medicine.

It is the story of too few doctors and too many patients, young men who would like to become doctors going into other fields because medicine doesn't pay enough under socialism, assembly line procedure in the doctor's office where each patient is allowed less than two minutes of the physician's time, and hospitals so crowded patients requiring surgery often must wait as long as five months to be admitted.

Despite such hardships, the countries visited by Drs. W. B. McLaughlin and John S. Donaldson have made some advances in the treatment of human ills. Praise for progress made belongs not to the state operated medical bureaus, but to the older generation of physicians, men dedicated to their profession regardless of the obstacles.

Sweden, for example, with the highest suicide rate in Europe, has a special wing in its 1,550-bed hospital in Stockholm for the specialized treatment of attempted suicides. Yet Sweden has to import many doctors from central Europe because of lack of interest among its younger generation in the medical profession.

In Edinburgh, Scotland, doctors' offices are so crowded with patients receiving "free" care, physicians devote an average of one and one-half minutes to each patient. Throughout all Scandinavian countries there is a long waiting list for admittance to hospitals.

These are but a few examples of life under socialism. This is the result of the Marxist theory of government—the theory which stifles native genius and smothers individual resourcefulness in the name of the "common good." There are those who rebuff socialism with the comment, "It may be good enough for them but it wont work for us."

They are wrong. It won't work anywhere.—Editorial reprinted with permission from *The State Journal,* Lansing, Michigan, September 2, 1958.

PERIODIC EXAMINATION UNIT

"At the University of Michigan, a Periodic Examination Unit has been set up in the University Health Service for the purpose of appraising the health of staff members at regular intervals. The examinations are carried out by fully qualified internists and special consultants on the staff of the Medical School. During the first year of this program, almost three hundred staff members have undergone thorough examinations including laboratory and x-ray studies. A high incidence of previously unrecognized disease has been found, and in many instances the condition has been considered serious. Neoplasms have been detected in a somewhat larger percentage, and diabetes mellitus in a much higher percentage, than originally expected. It is believed that these findings of early disease will exert a significant influence on life expectancy and potential disability in this group of people. In addition, it has become apparent that the program offers considerable potential for medical research and for strengthening relations between the general public and the medical profession."—From *Industrial Medicine and Surgery,* page 332, July, 1958.

MAKE IT FREE

Few physicians would disagree with the sentiments expressed by Dr. George W. Slagle, President of the Michigan State Medical Society:

". . . This doctor-patient relationship, voluntarily established by the patient who chooses a physician and by the doctor who assumes responsibility for the patient's care must be maintained. . . . We must emphasize that we are fighting for this free choice of physician, a 'status quo' if you like, for the benefit of the people . . . and not for the benefit of the doctor. . . . This free choice is not nebulous or irrelevant. It is something deep and sincere in people's hearts and it is something that we all must fight for." (*R. I. Med. Jour.* 41:31, 1958)

Yet, this principle of free choice is violated by hospitals which deny privileges to a physician competent enough to be on the active or courtesy staff of other approved hospitals. A patient expects to have the right to a free choice of physician *and* hospital. What happens to that right, however, when the patient is informed that he will have to choose another hospital or be referred to another physician who has staff privileges in the hospital preferred by the patient?

Physician's Choice Restricted

Under the current system, the physician's freedom of choice is also restricted. Should a consultation or an operation be necessary, the physician may not be able to call in the consultant he prefers. He is limited to members of the staff of the hospital. The adoption of a policy of reciprocal staff privileges in hospitals, however, would give real substance to the concept of free choice for both patient and physician.

A step in this direction has been taken by hospitals in New Orleans. First, seven of the largest

(Continued on Page 1392)

Now—the most widely prescribed tranquilizer[1] in sustained release capsules

Meprospan*

meprobamate (Miltown®) capsules



q. 12 h.

Two capsules on arising **last all day**
Two capsules at bedtime **last all night**
relieve nervous tension on a *sustained* basis, without between-dose interruption

"The administration of meprobamate in sustained action form [Meprospan] produced a more uniform and sustained action . . . these capsules offer effectiveness at reduced dosage."[2]

Dosage: 2 Meprospan capsules q. 12 h.
Supplied: 200 mg. capsules, bottles of 30.

1. Meprobamate is more widely prescribed than any other tranquilizer. Source: Independent research organization; name on request.
2. Baird, H. W., III: A comparison of Meprospan (sustained action meprobamate capsule) with other tranquilizing and relaxing agents in children. Submitted for publication, 1958.

Literature and samples on request

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who discovered and introduced Miltown®

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MAKE IT FREE

(Continued from Page 1390)

voluntary hospitals in the area, with a combined total of 16,685 beds, granted courtesy privileges to all members of the Orleans Parish Medical Society in emergency cases when the patient requests his own physician who is not a staff member.

Following this example, the Board of Administrators of Charity Hospital in New Orleans, a tax-supported institution (3,057 beds), with the approval of the Staff Advisory Committee, adopted a similar policy. In cases where a patient, ineligible for admittance to the hospital because of residence or economic reasons, is severely injured and requests the attendance of his private physician, the resident in charge facilitates such consultation. Privileges are granted the consultant to administer first aid in preparing the patient for definitive treatment in conjunction with the resident in charge. Operating privileges are extended in cases of dire emergency where the life of the patient would be jeopardized if he were moved.

In Massachusetts cities, hospitals should do no less than to emulate the example of the New Orleans institutions as a modest beginning. However, interchange of courtesy staff privileges in hospitals in all cases, emergency or otherwise, should be the goal and would make it possible for a patient to enjoy his right to free choice of physician and hospital *at one and the same time.* It would also give the physician the freedom to choose his consultants. Let's make the "free" in "free choice" really free. This should not be too difficult in *the home of the brave.—Massachusetts Physician.*

ANTIBIOTICS AND THE PUBLIC HEALTH

According to an economic report of antibiotic manufacture released recently by the Federal Trade Commission, the doctors since 1952, have written more prescriptions for antibiotics than for any other category of ethical drugs. Whereas these products represented an estimated 1.5 per cent of all prescriptions written in 1948, they accounted for one of every eight prescriptions in 1955.

This industry did not exist in 1941 at the beginning of the war, but in ten years grew to $344 million in net sales. Antibiotics have made their contribution to public health both in treating infections and contagious diseases of bacterial origin and in preventing complications that may follow illnesses (such as colds, influenza, measles, and other viral infections) which themselves are unresponsive to antibiotic therapy.

Antibiotics have proved particularly effective in saving the lives of children and young persons and have caused a decline of several days in the average time spent by patients in hospitals. The sheer economic value of these lives is beyond measure.

AMA News Notes

CIVIL DEFENSE CONFERENCE

More than 175 physicians and others interested in civil defense will gather November 8-9 in Chicago for the ninth annual County Medical Societies Civil Defense Conference. The two-day meeting at the Morrison Hotel, Chicago, is being planned by the AMA's Council on National Defense. Dr. F. J. L. Blasingame, executive vice president, will welcome the conferees on behalf of the American Medical Association, and Dr. Gunnar Gundersen, AMA president, will speak on "The Profession's Responsibilities in Civil Defense." Officials of the newly-created Office of Civil and Defense Mobilization will report on the expanding role of the federal government's defense program and the medical and health aspects of civil defense as they pertain to the new program.

As in past years, the group will divide up into workshop sessions to consider various phases of civil defense: organization and training; reception, evacuation and emergency care; hospital disaster planning; supplies, transportation and communication. In an effort to promote test operations dealing with simulated disasters, the program will feature reports on several field tests conducted this year. "Test Exercise Star"—based on a mock earthquake of severe intensity—was conducted by the Alameda-Contra Costa (California) Medical Association in co-operation with local civil and military authorities. "Operation Prep Pitt"—dealing with a theoretical jet airplane crash into the Pitt Fieldhouse—was conducted by the Allegheny County (Pennsylvania) Medical Society in co-operation with local authorities. "Operation AFTA"—based on a simulated airplane crash on the Tulane University campus—was sponsored by the Committee on Medical Education for National Defense (MEND) of the Tulane School of Medicine to provide a realistic situation for the instruction of medical students in the principles of disaster medicine.

NEW "TEEN TALK" RADIO SERIES

A new series of three radio programs featuring interviews with teenagers will soon be available from the AMA's Bureau of Health Education. These fifteen-minute "Youth Speaks Up" programs offer pertinent comments by youth on boy-girl and parent-child relationships, school activities and world affairs. The youthful participants were chosen to represent leaders in school, athletes, slow learners, fast learners and "problem cases." Local medical societies may secure these platters as supplements to the "Magazine of the Air" monthly series or as separate programs for airing on local radio stations.

Selective Service headquarters has dispatched a directive to all state boards requesting them to summon 1-A physicians for physicals. This is a "just in case" measure and does *not* signify that a Pentagon call-up is imminent.

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The Pre-diabetic State in Man

Definition, Interpretation and Implications

By Jerome W. Conn, M.D.
Ann Arbor, Michigan

THE PROBLEM chosen for discussion is one with which my group has been concerned during the past eleven years. It has to do with the effect of ACTH and glucocorticoids upon carbohydrate tolerance of normal people. The author is acting as spokesman for the various past and present members of our research staff who have contributed their ideas and efforts to this long-term project. The list of names begins back in 1947 with Dr. Margaret Johnston, Dr. Lawrence Louis and Dr. Clayton Wheeler and concludes with that of my present associate Dr. Stefan Fajans, who for the past five years, has carried the major responsibility for this project. The author's function throughout this effort has been that of advisor in experimental design and in interpretation of data. Financial support for a major portion of this eleven-year period has come from the United States Public Health Service.

The historical aspects of the influence of adrenal cortical function upon carbohydrate metabolism will not be stressed here. However, I would like to indicate some of the landmarks for purposes of orientation. Clinicians have been aware of the occurrence of spontaneous hypoglycemia in patients with Addison's disease since 1909 when this phenomenon was first described by Porges.[18] Following the description by Harvey Cushing of the syndrome which bears his name it was soon evident that a large percentage of such patients are frankly diabetic,[1] and that almost all of the rest can be shown to have decreased carbohydrate tolerance when glucose-loading tests are employed.[17] In 1935 Long and Lukens[12] established the ameliorating effect upon pancreatic diabetes of bilateral adrenalectomy in the cat. Long, Katzin, and Fry,[13] in a beautifully designed study published in 1940, demonstrated, among many other things, that the partially depancreatized rat was much more susceptible to the diabetogenic effect of adrenal cortical extracts than were animals with pancreas intact. Ingle and his associates[8,9] produced hyperglycemia and glycosuria in intact force-fed rats by administration of large amounts of either adrenal cortical steroids or ACTH.

In 1947 purified preparations of ACTH became available in sufficiently large quantities for testing in man. There was, of course, still no hint that ACTH would be of any value as a medicine, except possibly in hypopituitarism, and Kendall had not yet synthesized cortisone. Our own studies with ACTH began at that time and were designed to determine the over-all metabolic effects of this substance in normal men and women.

Presented as the 1958 Banting Memorial Lecture, 18th Annual Meeting, American Diabetes Association, San Francisco, California, June 21, 1958.

Dr. Conn is Professor of Medicine; Director of the Division of Endocrinology and Metabolism, and of the Metabolism Research Unit, University of Michigan Medical School, Ann Arbor, Michigan.

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At the 1948 meeting of the American Diabetes Association, we reported[3] the production of temporary diabetes in normal people by the administration of ACTH for a five to ten-day period.

"We have observed that the individual who is susceptible to the diabetogenic effect of ACTH, is susceptible as well to the diabetogenic effect of cortisone. On the other hand, individuals *resistant* to the diabetogenic effect of ACTH are also resistant to the same dose of cortisone which produces diabetes in the ACTH-susceptible person. These findings indicate that a major difference between *diabetes susceptibility* and *diabetes resistance* among so-called normal people given ACTH, lies in end-organ responses to '11-oxy-steroid' activity rather than to qualitative or quantitative differences in adrenal steroid production."

TABLE I. EFFECT OF ACTH UPON CARBOHYDRATE AND NITROGEN METABOLISM
(R.S.—Normal Man—37 years old)

	Days	Blood Sugar* mg./100 cc						Urine	
		F.	½h.	1h.	2h.	3h.	4h.	Sugar* gm./24h.	Nitrog. gm./24h.
Baseline Period	1	83						—	—
	2	85						1.3	12.0
	3	93						1.1	13.5
	4	85						1.2	13.6
	5	87						1.3	14.4
	6	82	134	100	92	100	49	1.0	15.5
ACTH 105 mg./day	1	77						13.8	15.8
	2	115						16.0	18.4
	3	120						21.0	18.8
	4	121						22.0	20.9
	5	130	227	226	241	201	88	38.4	21.6
	6	124						33.0	22.3
	7	124						31.0	21.9
	8	127						36.0	23.2
Recovery Period	1	125	180	182	235	145	51	12.0	18.5
	2	66						1.4	18.2
	3	66						1.2	16.9
	4	63						1.2	15.3
	5	64						1.0	14.4
	6	75						1.0	14.6
	7	81						1.0	15.0
	8	79						1.0	15.0
	9	84						—	—
	13	90	158	86	107	81	62		

*Somogyi.

Table I shows some of the data from the very first subject so studied. It will be noted that upon administration of ACTH there began a significant glycosuria, elevation of the fasting blood sugar, a great increase in urinary nitrogen, and a severe loss of tolerance for carbohydrate. All of these changes reverted quickly to normal when ACTH was stopped. These experiments were replicas of those which had been done in rats two years before[8] but they demonstrated for the first time that in man, too, a state of continuous hyperglycemia and glycosuria could be induced by the administration of large doses of ACTH.

By the 1949 meeting of the American Diabetes Association, Kendall had already synthesized cortisone, and Sprague, Mason, and Power[19] reported the production of diabetic glucose tolerance curves in normal people given 200 milligrams of cortisone daily. They, too, observed the rapid return of normal carbohydrate tolerance upon cessation of cortisone administration.

In 1950 we[2] gave, in a paragraph, the basis for what has evolved as the cortisone-glucose tolerance test for detecting susceptibility to diabetes. I quote this paragraph because it represents the starting point with respect to much of the newer data being reported here.

In the same year Wilson, Frawley, Forsham, and Thorn[20] reported that a functional relationship appeared to exist between the pancreatic islets and the adrenal cortex in man. They concluded that loss of carbohydrate tolerance upon the administration of ACTH (or resistance to loss of carbohydrate tolerance) might well be an indication of the reserve function of the beta cells.

In the course of our own studies we had made two additional observations which seemed to be generally applicable in people with normal carbohydrate tolerance. First, if the dose of cortisone is sufficiently large *all* people respond with an *initial* decrease in carbohydrate tolerance. Depending upon the dose of cortisone employed, the decrease of carbohydrate tolerance may reach its peak of intensity in four or five days. In the great majority of normal people, tolerance begins to be regained thereafter despite continuation of

the dose of cortisone. We interpret this as an attempt on the part of the beta cells to compensate for (1) an increased peripheral resistance to insulin activity and (2) the increased glyconeogenesis induced by the administered cortisone.

The second observation (a very obvious one) was that as the dose of cortisone was reduced the early decrease in carbohydrate tolerance of normal people (before compensatory mechanisms are evident) becomes less and less. We then had two ends of a spectrum. At one end, the dose of cortisone could be made sufficiently large that it would diminish carbohydrate tolerance of everyone. At the other end, no detectable effect on carbohydrate tolerance of normal people could be observed if the dose were made sufficiently small.

Since we had found that among *apparently* normal individuals marked differences exist in susceptibility (or resistance) to loss of tolerance produced by administration of fairly *large* doses of cortisone, we wondered if we could find the critical single dose of cortisone which would not affect, significantly, the carbohydrate tolerance of normal people but which might, on the very first day of administration and before pancreatic compensations had had a chance to occur, disclose people susceptibile to future diabetes. This, of course, assumed that all of the people so-tested would have perfectly normal baseline, standard glucose tolerance tests.

The obvious place to look for people who might be susceptible to diabetes is in the families of known diabetic patients. The control group had to be people who could not recall ever having heard of a diabetic patient in their families. The first report on this long-term project appeared in 1954[4] and a short subsequent follow-up report was published in 1955.[5] Since then, we have enlarged the various groups under study and have been able to do follow-up testing in some of the subjects from one to four years after they had been classified initially as positive or negative reactors to the cortisone-glucose tolerance test.

A few words are needed about our methods and criteria. Throughout these studies the Somogyi-Nelson method has been used for the determination of sugar of venous blood. Glucose tolerance tests have all been oral, 1.75 grams of glucose per kilogram of ideal body weight having been used as the glucose load. Each glucose tolerance test has been preceded for at least three days by a diet maintenance in calories, and containing 300 grams of carbohydrate per day. With respect to the glucose tolerance test preparatory diet, I might say parenthetically that we are well aware that normal carbohydrate tolerance can be preserved at carbohydrate intake levels which are far below 300 grams per day. We think, however, that the diet which precedes a glucose tolerance test (a) must have a sufficiently safe plethera of carbohydrate that it is capable of awakening the dormant beta cells of anyone who may have been restricted in dietary carbohydrate for weeks or months and (b) that *whatever* the pletheric level which may be decided upon, it should be *standard* for all adults.

In the 512 subjects who provide the data for the present report, the dose of cortisone employed in the cortisone-glucose tolerance test was as follows: If the subject weighed less than 160 pounds he was given orally 50 milligrams of cortisone acetate eight and one-half hours and again two hours before a standard glucose tolerance test was performed. If total body weight exceeded 160 pounds the dose was 62.5 milligrams orally at both of these same times before the glucose tolerance test.

When one attempts to classify large numbers of individuals on the basis of a standard glucose tolerance test and a standard cortisone-glucose tolerance test, he is obliged (initially, at least) to set up somewhat arbitrary lines of demarcation. He must then stick rigidly to these criteria until enough information has been collected to indicate that a change in any individual criterion is required. The present study will eventually provide such information. It can be obtained in no other way. For example, what, under conditions of standard dietary preparation is the smallest decrease in carbohydrate tolerance which can be confidently diagnosed as indicative of *presence* of diabetes mellitus? A long-term study of this nature in a large number of individuals has never been carried out. In any case, for purposes of classification and with the methods described above, we regard as indicative of diabetes a glucose tolerance test which gives a value of 160 milligrams per cent or higher in the first hour, 140 milligrams per cent or higher at one and one-half hours, 120 milligrams per cent or higher at two hours (Fig. 1). A curve which is below 160 at one hour and below 110 at two hours is regarded as indicative of normal tolerance. When

the two-hour value falls between 110 and 120 milligrams per cent we classify it as belonging to a special group which we designate as *probable diabetes.*

Table IV demonstrates the case of a six-month-old child with furunculosis for six weeks and glycosuria for two weeks. The first hour value of the glucose tolerance test is not quite 160 but the second hour value is significantly delayed. The furunculosis and glycosuria then disappeared and the boy was well until the age of fourteen when within one week he progressed from polyuria and polydipsia to diabetic coma. If at the age of twelve, someone had noted capillary microaneurisms in his fundi, this case could have been used erroneously to illustrate the appearance of vascular lesions before any defect in carbohydrate metabolism had been known.

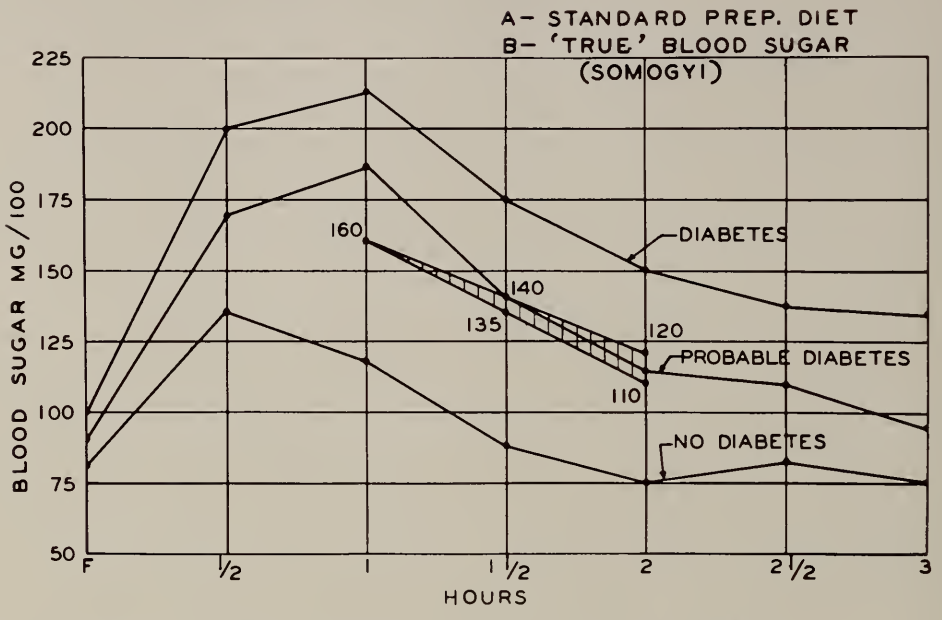


Fig. 1. Criteria used for interpretation of glucose tolerance tests.

TABLE II

(L.H., Male, Height 6 feet 2 inches)

Year	Age	Weight	Glucose Tolerance Test			
			F.	1 hr.	2 hr.	3 hr.
1939	59	240	83	186	122	58
1950	70	227	134	262	304	205

The criteria which we have indicated as being diagnostic of diabetes are in close agreement with those careful studies of this problem reported by Mosenthal and Barry,[14] and by Moyer and Womack.[15] Our own experience over the past twenty-five years indicates that the 160, 140, 120 criterion (Fig. 1) has never missed.

Table II shows the importance both of a one-hour value over 160 and a two-hour value over 120. Eleven years later the curve was obviously diabetic.

Table III shows the importance of the two-hour value of 120 or above. Even by our own criteria, the one-hour value should have been 160 or above for a diagnosis of diabetes. Nevertheless, one month later islet cell decompensation occurred and the diagnosis was evident. The third curve is one obtained for comparative purposes seven years later.

TABLE III

(G.B., Male, Height 5 feet 5 inches)

Year	Age	Weight	Glucose Tolerance Test			
			F.	1 hr.	2 hr.	3 hr.
April1934	54	162	77	151	120	84
May 1934	54	162	150	284	230	121
1941	61		220	364	348	302

Table V represents the case of a thirty-nine-year old woman whom we diagnosed as renal glycosuria in 1938. The test was repeated three years later and one notes that while the first hour value never went above 153, the second hour value of 130 made this curve extremely significant. Eleven years later diabetes was obvious.

We mentioned that when the two-hour value

TABLE IV

(F.P., Male)

1938—Age 6 months
Furunculosis for 6 weeks
Glycosuria for 2 weeks
Glucose tolerance test

F.	½ hr.	1 hr.	2 hr.	3 hr.
84	172	153	129	105

1951—Age 14 years
Well and asymptomatic until:
12/2 Sore throat, anorexia
12/6 Polyuria and polydipsia
12/7 Air hunger, confusion
12/8 Coma, FBS: 506 mg.%
CO_2 comb. power: 5 mEq./L.
NPN: 92 mg.%.

falls between 110 and 120 we designate this as probable diabetes. Table VI represents a case in point. A one-hour value of 170 and a two-hour value of 115 were obtained in 1934. Two years later the one-hour value was about the same but the two-hour value indicated a further delay in the patient's capacity to clear the blood of a glucose load. Twenty years later (still with a normal fasting blood sugar) the diagnosis of diabetes mellitus was clear.

TABLE V

(R.K., Female, Height 5 feet 3 inches)

Year	Age	Weight	Glucose Tolerance Test				
			F.	1 hr.	2 hr.	3 hr.	4 hr.
1938	39	128	82 0	112 ++	95 +++	85 +	64 0
1941	42	128	101 0	153 +++	130 ++++	92 ++++	93 +++
1942	43	127	162 ++++	284 ++++	318 ++++	260 ++++	146 ++++

The last example (Table VII) tells an interesting story. On March 18, 1938, the diagnosis of diabetes mellitus was clear. Eleven days later, with no treatment of any kind, pancreatic compensation occurred and the only thing abnormal was a slight two-hour delay with a level of 112 indicating probable diabetes. In 1939 and 1941 glycosuria was found but nothing was done about it. Thus, from 1938 to 1946 the patient was untreated and was asymptomatic. In 1946, he had furunculosis with polyuria and polydipsia and an eight-pound weight loss. He again recompensated without treatment. One year later he developed an abscess of the abdominal wall, his fasting blood sugar was found to be 350 milligrams per cent, and treatment with insulin was begun. A year later there was retinitis proliferans. When one speaks of diabetic retinopathy in the presence of normal glucose tolerance it will be well to remember the curve in this series which is marked by the date of March 29, 1938. I think that this illustrates, too, that the old definition of diabetes mellitus, a state of continuous hyperglycemia and glycosuria, is not only antiquated but dead—despite the fact that many of our present-day clinical experts still embrace it.

TABLE VI

(A.W., Male, Height 5 feet 7 inches)

Year	Age	Weight	Glucose Tolerance Test			
			F.	1 hr.	2 hr.	3 hr.
1934	46	149	81	170	115	89
1936	48	149	86	166	150	100
1956	68	150	84	201	241	151

Thus, it should be clear that as our knowledge of the life history of diabetes mellitus increases we should be able to recognize its existence at a progressively earlier time. In any case, using the *arbitrary* criteria which I have outlined as separating diabetic patients from non-diabetic individuals, we have been able to make a number of interesting observations.

TABLE VII

(B.S., Male, Height 5 feet 6 inches, Weight 152 pounds)

Date	Age	Glucose Tolerance Test			
		F.	1 hr.	2 hr.	3 hr.
3/18/38	24	214	375	353	273
3/29/38	24	107	146	112	99
1939	25	Asymptomatic glycosuria on insurance exam.			
1941	27	Asymptomatic glycosuria on draft exam.			
1946	32	Furunculosis, polydipsia, polyphagia, 8 pounds loss of weight. Spontaneous recovery without treatment.			
1947	33	Abscess of abdominal wall. FBS—350 mg.% Rx—Insulin and diet.			
1948	34	Retinitis proliferans, iritreous hemorrhages.			

Figure 2 shows the results of the standard baseline glucose tolerance test (not the cortisone-glucose tolerance test but the ordinary glucose tolerance test) when applied, on the one hand, to 387 close relatives of diabetic patients and, on the other, to 125 people who know of no diabetes in their families. Note that among the apparently healthly relatives of known diabetic patients, 18 per cent are already diabetic without knowing it.

Another 4 per cent are *probably diabetic* and we shall have more to say about this group later. Thus, somewhere between 18 and 22 per cent of close relatives of diabetics are themselves already diabetic. Of 125 subjects with no *known* family history of diabetes only one subject showed a diabetic glucose tolerance test and only one more had a curve indicating that he was probably diabetic. This figure of less than 2 per cent in the control group stands in marked contrast with the 22 per cent figure found among relatives of known diabetics.

Thus, before ever getting to the *cortisone-glucose tolerance* test, very significant conclusions can be drawn from the standard glucose tolerance test. If one wishes to detect the unknown and undiagnosed diabetics in this country the area is all marked out for him. Mass screening programs of the general population seem a bit cumbersome when one already knows that he can obtain an 18 to 22 per cent positive yield by concentrating initially on a well delineated population group. The fact is that if local, urban, state or even national registries were set up for diabetic patients one could, within just a few years, detect essentially all of the undiagnosed diabetics in this country. This is true because if all of the close relatives of known diabetics were to be screened this year we would detect the vast majority of unknown diabetics. A similar screening procedure during succeeding years would give rapidly decreasing percentage yields until we arrived at a figure representing new cases which had developed during that particular year.

Before leaving Figure 2, let me outline what we have done with these various groups. Obviously, the group of seventy-one patients who already exhibit diabetes do not require a cortisone-glucose tolerance test. They are, therefore, eliminated as far as the studies for *diabetes susceptibility*, are concerned. Our major interest from now on, then, is concerned with the 302 subjects who have perfectly normal glucose tolerance tests, and with the 123 control subjects who have an almost identical baseline glucose tolerance test as that exhibited by the non-diabetic segment of the relatives of known diabetics.

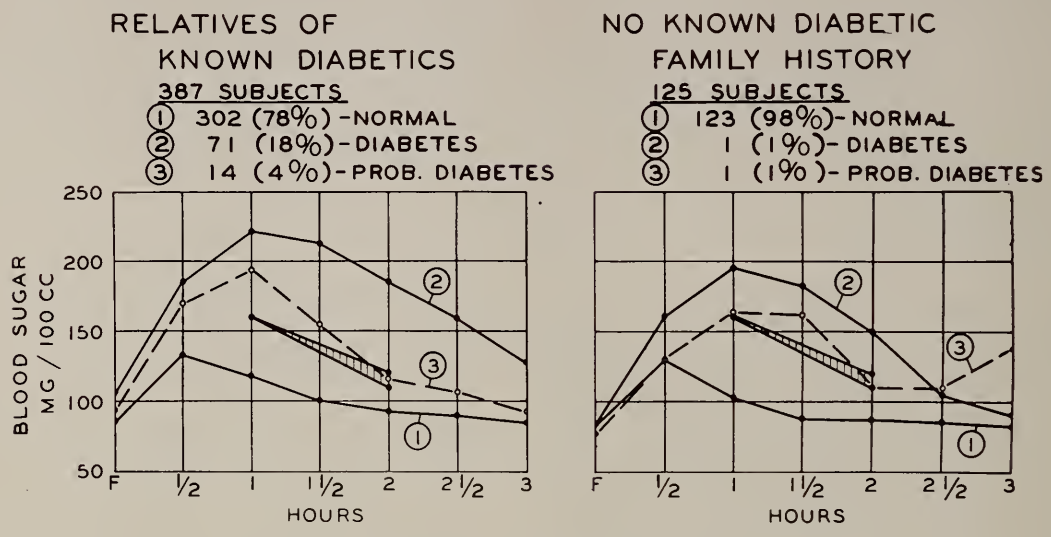


Fig. 2. Standard oral glucose tolerance tests.

The cortisone-glucose tolerance test is applied to both of these non-diabetic groups as a possible measure of *susceptibility* to diabetes.

Figure 3 shows the results of the cortisone-glucose tolerance test in non-diabetic relatives of known diabetics. There are two hundred and fifty-nine subjects in the group, every one of whom has a perfectly normal baseline glucose tolerance test. Before interpreting these results two points should be emphasized regarding criteria. First, regardless of what we believe there are some who will not agree, surely, that the 160, 140, 120 line (the upper line of the shaded area) is sufficiently high to be certain that diabetes mellitus exists. On the other hand, there will be unanimity of opinion that a curve falling *below* the lower line of this area, namely, 160, 135, 110, would certainly be indicative of the *absence* of a defect in carbohydrate metabolism. Thus, we shall now be dealing with a group of people which everyone will agree is not diabetic. Second, the reader will note that

a new higher line has been added. This line runs from 160 at one hour to 140 at two hours. This is the line of demarcation which initially we set arbitrarily as separating a positive cortisone-glucose tolerance test from a negative one. Thus, in order for an individual to react positively to this test, his baseline glucose tolerance test must fall below 160 milligrams per cent at one hour and 110 milligrams per cent at two hours and his *cortisone-glucose tolerance* test must be above 160 at one hour and above 140 at two hours.

It will be seen that 75 per cent of the subjects gave a negative response (lines 1 and 2), while sixty-four individuals, or 25 per cent, (lines 3 and 4) gave a positive response.

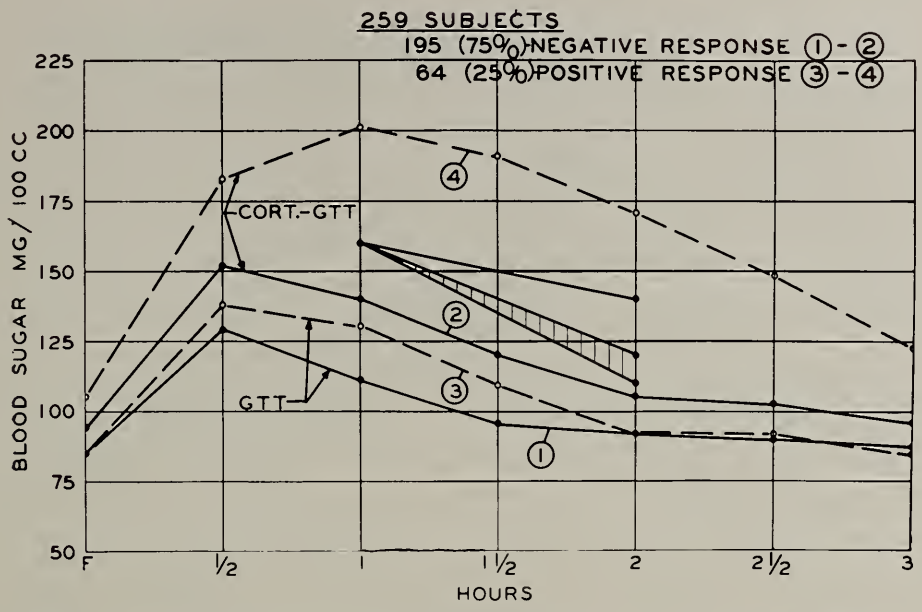


Fig. 3. Results of the cortisone-glucose tolerance test in non-diabetic relatives of known diabetic patients.

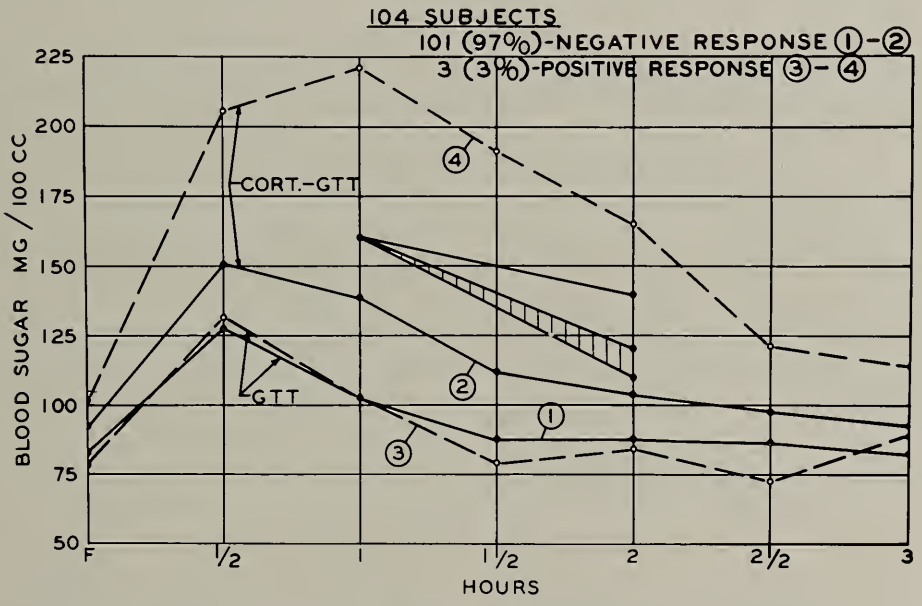


Fig. 4. Results of the cortisone-glucose tolerance test in people with no known diabetic family history.

When one now compares the figure of 25 per cent positive responders among non-diabetic relatives of diabetics, with what is found in the control group he becomes confident that this test is making some type of important distinction among non-diabetic relatives of diabetic patients. In Figure 4 it will be observed that although the

baseline glucose tolerance tests are identical, 97 per cent of the control subjects give a negative response. Thus, less than 3 per cent of the controls react as 25 per cent do when there is a family history of diabetes. This figure of less than 3 per cent for the control group may drop to less than 2 per cent since it now appears that one of the three subjects who gave a positive response may have found a diabetic patient in her family.

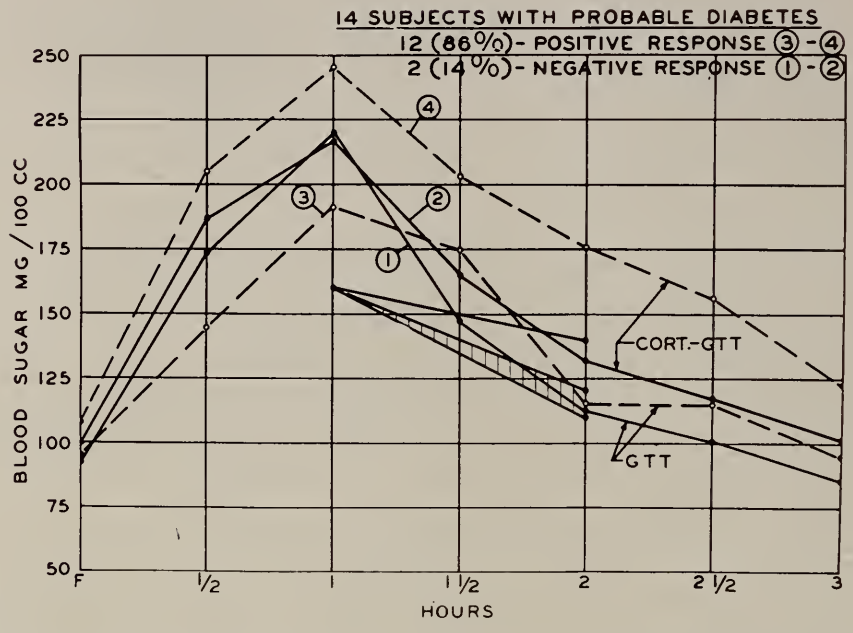


Fig. 5. Glucose tolerance tests (GTT) and cortisone-glucose tolerance tests (CGTT).

TABLE VIII.
EFFECT OF OBESITY ON GLUCOSE TOLERANCE
(J.D., Male, 48 years old)

Overweight Per cent	Glucose Tolerance Test			
	F.	1	2	3
45	128	314	322	202
0	91	140	72	61
25	119	230	185	102
0	87	135	107	66

Now let us (Fig. 5) see what the cortisone-glucose tolerance test says about the fourteen people whose *baseline* glucose tolerance tests fall into the group which we have classified as *probable diabetes*. This, you will recall, was defined as the curve in which the two-hour blood sugar value falls between 110 and 120 milligrams per cent. Of the fourteen individuals, twelve (86 per cent) gave a positive cortisone-glucose tolerance test (curves 3 and 4). Curve 1 is that of the other two subjects on the baseline test and curve two is their cortisone-glucose tolerance test. It will be observed that even these two individuals had *almost* a positive cortisone-glucose tolerance test. Obviously, only the future holds the answers that we would like to know here, but it is very significant that 86 per cent of those that gave a borderline baseline test were positive on the cortisone-glucose tolerance test. This figure (86 per cent) is to be compared with the figure of 25 per cent positive cortisone-glucose tolerance tests when the baseline curve was *normal* and there was a family history of diabetes.

We have evaluated the cortisone-glucose tolerance test in another very interesting group of patients. Table VIII was published nineteen years ago.[16] Some of the more mature readers will recall a group of publications by Newburgh and myself between 1937 and 1940 which dealt with the effect of weight loss and weight gain upon carbohydrate tolerance of obese, middle-aged diabetic patients. The data on Table VIII exemplifies what we observed many times. One notes that a diabetic curve reverts to normal with a return of the weight to normal. As weight is regained the test becomes typically diabetic again and again reverts to normal with the attainment of a normal weight. Inasmuch as we *know* that these people are diabetic to begin with, we thought it would be of interest to see what the cortisone-glucose tolerance test says about them after weight

reduction has brought back normal tolerance for carbohydrate by the standard test. Figure 6 shows the results of this experiment upon nineteen subjects whose diabetic glucose tolerance curves reverted to normal after loss of weight. The middle curve is the one obtained before weight loss and is, of course, typically diabetic. The lower one is that which was attained after weight loss and the upper one is the cortisone-glucose tolerance test done at the same lower weight and just a day or two after the standard glucose tolerance test was done. It is to be noted that sixteen of the nineteen individuals, or 84 per cent, gave a positive response. More interesting than that is the fact that three of these subjects *failed* to give a positive response. On Figure 7 is shown the data on the sixteen positive responders and on the three negative responders. The results in the latter group may mean that they had attained sufficient return of reserve islet cell function that they were able to resist the stress placed upon the islets by the cortisone-glucose tolerance test, *or* it could mean that a different mechanism is responsible for the original loss of carbohydrate tolerance in this sub-group. It could also mean that on the basis of the criteria as they are now set up we can expect no more than about 84 per cent accuracy in picking out the potentially diabetic individ-

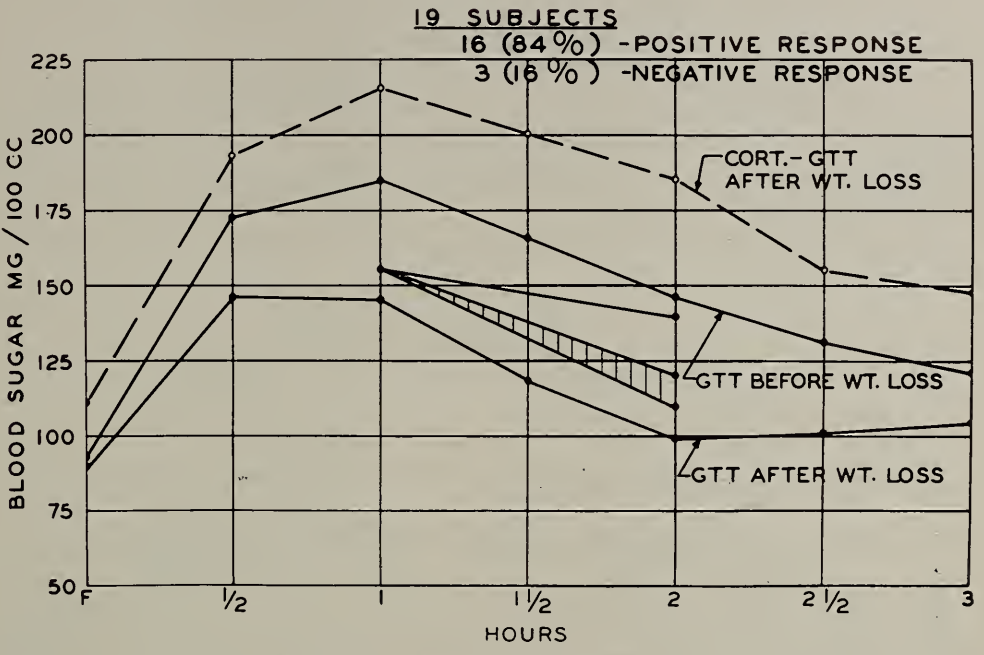


Fig. 6. Cortisone-glucose tolerance tests in obese diabetic patients after loss of weight.

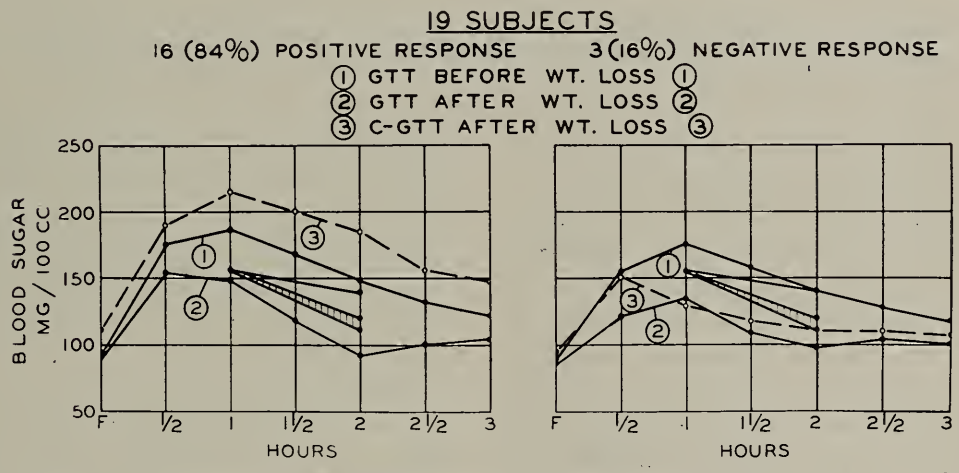


Fig. 7. Cortisone-glucose tolerance tests in obese diabetic patients after loss of weight.

ual. But even 84 per cent would be acceptable temporarily. At this point it would be well to remember another figure (86 per cent) that was emphasized earlier. This was a figure of 86 per cent positive reactors among people whose baseline curves we classified as *"probable diabetes."*

Table IX shows another aspect of the problem of obesity, diabetes and loss of weight. This very obese woman was diabetic by our criteria in October, 1952. During the next six months she lost 22 pounds and compensated sufficiently to exhibit a normal standard glucose tolerance test. The cortisone-glucose tolerance test, however, was positive. One year later, at the same weight, the *standard* glucose tolerance test was clearly diabetic and the cortisone-glucose tolerance test was positive. This is of particular interest since it shows that return of normal carbohydrate tolerance after weight loss as measured by the *standard* glucose tolerance test in an obese middle-aged glycosuric patient, does not mean that progressive loss of tolerance will not occur with time even *without* gain of weight. In fact, this has been the result in many of the cases that we reported twenty years ago. The other point of interest here is that had this patient been seen first in March of 1953, the cortisone-glucose tolerance test would have indicated correctly that she would eventually become diabetic.

Figure 8 shows a typical example of individual subjects who have gone on to develop diabetes mellitus as the cortisone-glucose tolerance test had suggested that they might. It demonstrates the normal baseline glucose tolerance test and the positive cortisone-glucose tolerance test in September, 1956; and in October, 1957 undoubted diabetes mellitus.

TABLE IX. OBESITY, DIABETES, LOSS OF WEIGHT AND THE CORTISONE-GTT
(Female, 5 foot 1½ inches)

Time	Age	Wt.	F.	½ hr.	1 hr.	1½ hrs.	2 hrs.	2½ hrs.	3 hrs.
Oct. 1952	47	154	99	204	198	154	120	74	65
Mar. 1953	48	132	93	157	167	155	86	86	90
Mar. 1953 Cortisone-GTT			129	230	284	258	213	184	165
Mar. 1954	49	134	92	169	238	228	138	97	54
Cortisone-GTT			127	255	306	297	278	184	133

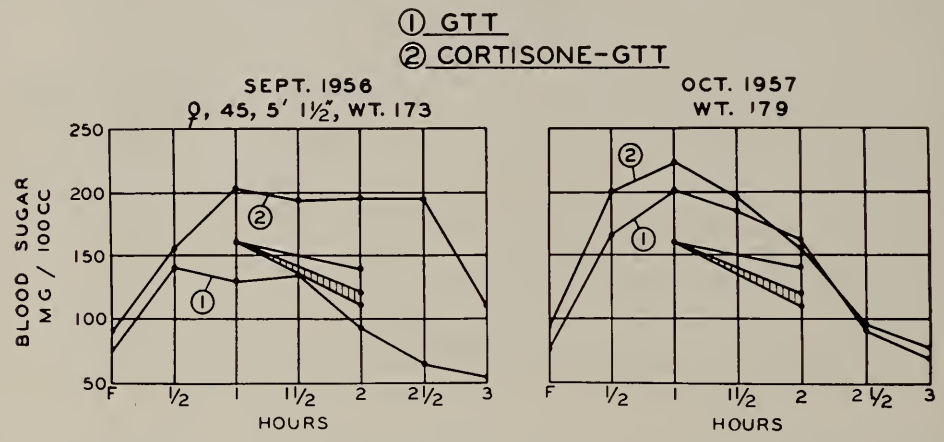


Fig. 8. Progression to diabetes mellitus in one year. Example of subject who developed diabetes mellitus as forecast by the cortisone-glucose tolerance test, demonstrating the normal baseline glucose tolerance test and the positive cortisone-glucose tolerance test.

Figure 9 emphasizes the probable importance of a one-hour blood sugar level of 170, all other parts of the curve being normal. Most experts in our field would consider the number 1 curve-in 1956 as normal. The cortisone-glucose tolerance test was positive. Two years later the patient was clearly diabetic. Obviously long-term studies of this nature will allow *all* of us to sharpen up our present criteria for the presence and absence of diabetes mellitus and to discard outmoded ones.

We have been able, to date, to do follow-up glucose tolerance tests and follow-up cortisone-glucose tolerance tests in seventy-one subjects who were related to diabetic patients, but whose standard glucose tolerance tests were normal (Table

X). Of these seventy-one non-diabetic relatives of diabetics, thirty had shown a positive cortisone-glucose tolerance test, and forty-one a negative one. Up to May 1, 1958, 4 (13 per cent) of the thirty with positive cortisone-glucose tolerance tests have developed diabetes and three more (10 per cent) have developed the curve which we classify as probably diabetic. Of forty-one negative reactors *with* a family history of diabetes, only one person (2 per cent) has developed an abnormal curve. Thus, of thirty positive reactors, 23 per cent have developed diabetes or *probable diabetes* while only 2 per cent of the negative reactors are now diabetic. Of the control group (no family history of diabetes and a normal glucose tolerance test) *none* so far retested has developed an abnormal curve. Thus, even after five years with this type of study, while the direction of the results seems clear, the numbers are still too small to be certain of their meaning. But persistent follow-up of these various groups and sub-groups over the *next* five years will give much more information than has been obtainable in the first five-year period because of the very nature of the study.

Finally, we have observed a very small group of positive reactors and a very small group of negative reactors (both with family histories of diabetes) which have, upon repeated testing with the cortisone-glucose tolerance test, varied back and forth between positive and negative responses. This type of instability of carbohydrate metabolism has not been observed *at all* in any of the individuals without a family history of diabetes. However, the numbers in these groups are too small to lend significance to any conclusions about this phenomenon.

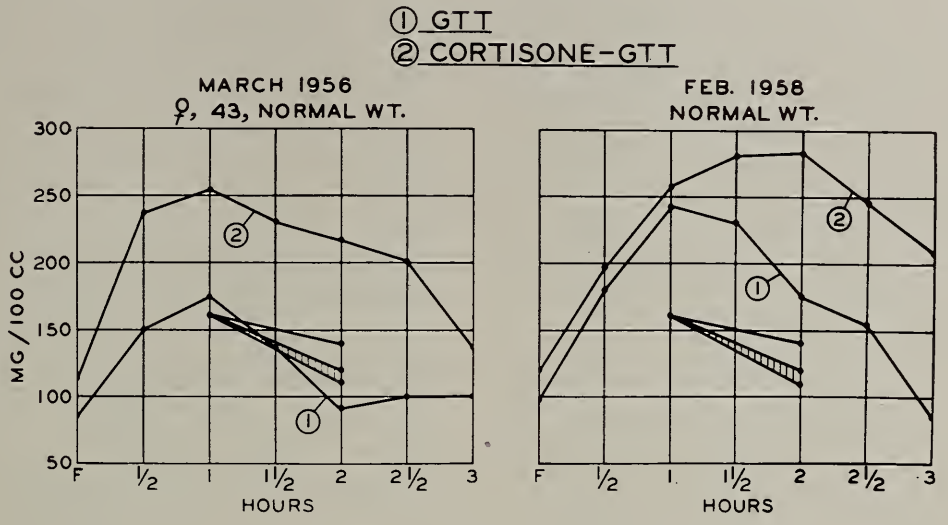


Fig. 9. Demonstrates progression to diabetes mellitus in two years. Normal (?) glucose tolerance curve and positive cortisone-glucose tolerance test.

TABLE X. OVER-ALL FOLLOW-UP RESULTS IN THE GROUP OF NON-DIABETIC RELATIVES
(1 to 4 years)

Cortisone-GTT	Number Subjects	Now Diabetic	Probably Diabetic
Positive	30	4 (13%)	3 (10%)
Negative	41	1 (2%)	0

Discussion

Since the beginning of this project, back in 1950, we have had one major objective. It has *not* been to devise a test which would measure the reserve functional capacity of the pancreatic beta cells. It has *not* been to be able to say that Johnny *will* and Mary *won't* develop diabetes. Our goal has been to find Johnny and to study *him* and many like him. The major objective has been to pinpoint the potential diabetic before the disease is evident by present testing methods in order to study what processes exist to make this particular individual vulnerable to various factors which precipitate the clinical syndrome. Clearly, the ultimate goal of all studies which concern themselves with the etiology of disease is prevention or cure of that disease.

Our own purposes and goals, therefore, have defined for us the so-called "pre-diabetic state." In an individual destined to become diabetic, the pre-diabetic state must be regarded as existing

from the time of conception to the time that a definitive diagnosis can be made by present methods of testing. Thus defined, the pre-diabetic state becomes a target which will continue to move toward the goal of eventual complete understanding. What may be regarded as pre-diabetic today will later be shown to be a clear manifestation that the disease is *present*. For example, there is now but one way to make a clinical diagnosis of diabetes mellitus with certainty. It is to demonstrate diminished tolerance for carbohydrate under certain standard conditions. Even here, there is room for argument as to what does and does not constitute diabetes mellitus. Let us assume, however, that over the next five to ten years the cortisone-glucose tolerance test, or some modification of it, can be shown to predict accurately those individuals who will eventually loose carbohydrate tolerance and become diabetic by *present* criteria. Would we then not be justified in changing our criteria for the diagnosis by instituting the cortisone-glucose tolerance test as the more sensitive indicator of abnormal carbohydrate tolerance? We would then be making the diagnosis of diabetes at a much earlier time in the lives of these individuals and perhaps we could learn to do something of value for them during this period which we now call latent. The *pre-diabetic* state would then be changed to that period of time which exists before the *cortisone-glucose tolerance* test becomes positive. What I wish to say is that the pre-diabetic state must be defined in terms of both time and objective manifestations; each newly discovered manifestation taking us further back into the pre-diabetic state. At the present time the index which takes us back the furthest into the pre-diabetic state is the remarkable correlation between very large babies at birth and the very high incidence of future diabetes in the mothers of these children. But other indices which can be applied to our enormous pre-diabetic population must be found.

One can say now without question, we believe, that there is an hereditary aspect involved in diabetes mellitus. Thus, the prediabetic state exists from the moment that the ovum is fertilized to the time that we can justify a clinical diagnosis by whatever means. Hoet,[6,7] Jackson[10,11] and others have emphasized the probable importance of the *in utero* environment upon the fetus. It has been suggested that this *congenital aspect* (the as yet unknown abnormality contained in the pre-diabetic mother which influences the fetus) may have even greater importance than the hereditary one itself. I think it is best, in the light of present knowledge, to regard the hereditary aspect as basic and to consider that from the time of conception to death there occur many influences which can bring to the clinical horizon evidence that the diabetic syndrome exists. Among the poorly understood influences which may bear importantly upon the future status of the hereditarily determined pre-diabetic individual are (1) the nature of the *in utero* environment of the pre-diabetic mother which produces large babies and/or hyperplastic islets of Langerhans[21] and (2) the *modi operandi* of the various stressful situations known to be associated with decreases of carbohydrate tolerance in pre-diabetics, i.e., infection, puberty, pregnancy, and obesity.

A major first step must consist of an ability to find the so-called pre-diabetic individual. While perfectly true, it is grossly insufficient to point out that a pre-diabetic female can often be spotted thirty years in advance of her loss of carbohydrate tolerance by the fact that she has delivered a 10½ pound baby. Similarly, the fact that the islets of Langerhans of many infants born of pre-diabetic mothers are hyperplastic[21] (as indicated by the still-born babies of this group) simply gives further evidence that important influences are at work for many years before tolerance for carbohydrate diminishes by our present methods of testing. But do we not already recognize this to be a fact if we accept heredity to be a basic influence? We know, of course, that the defect in the metabolism of carbohydrate may begin sixty years after birth or only three months after birth.

Finally, it should be made clear that in presenting this data, we have not implied that glucocorticoids are important in the *etiology* of diabetes mellitus. The cortisone-glucose tolerance test has been devised and is being used as a technical instrument of detection. When used in a standard way it seems to separate the non-diabetic relatives of diabetic patients into groups which are distinctly different from the groups which are found when the same test is applied to people with no known family history of diabetes. Only long-term future observations on members of these various groups will tell us whether or not this test, or some modification of it, will be capable of detecting at an earlier age the great masses of people who are to make up our future diabetic popula-

tions. When we can detect the pre-diabetic with reasonable certainty, only then can we justify the use of therapeutic or prophylactic measures designed to prevent the disease or, at least, to prevent the "decreased-insulin-activity-aspect" of the disease—that aspect about which we know the most. We believe that the present study represents a move, *minute* as it may be, in the right direction.

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RECORD MILLION ENTER HOSPITALS IN STATE

More people entered Michigan hospitals in 1957 than ever before, the Michigan Hospital Association reported Wednesday.

For the first time more than a million patients were recorded—1,007,288.

The association's questionnaire sent to 250 hospitals in the state showed that the number of people entering hospitals is rising faster than the state's population.

Twelve years ago the admission rate was 104 patients per 1,000 population. Last year it was 129 per 1,000.

The number of babies was another all-time high. A total of 208,063 births was recorded, beating the 1956 figure, the record until then, by 3,699.

The cost of hospital care went up almost 21 million dollars in 1957, with a total of $314,348,955 spent for patient care and child deliveries.

The association reported that the cost of providing a day's care for a patient has nearly tripled since 1946.

The figure then was $11.10. In 1957 it was $30.27 a day.

—*Detroit Free Press,* August 28, 1958

Diabetic Acidosis

By Henry L. Green, M.D., and
Fred W. Whitehouse, M.D.

Detroit, Michigan

DIABETIC ACIDOSIS* is a true medical emergency, for without prompt treatment the mortality is high. In this paper we shall present its clinical picture and outline some of the principles of management that we follow. Characteristically, its threat is ever-present in the juvenile and slender adult with diabetes. Obese adult diabetics are relatively resistant to ketoacidosis.

Adequate amounts of carbohydrate are not utilized at the cell level because of a deficiency of insulin. Both protein catabolism and glyconeogenesis increase. Fat mobilization is stimulated and acetyl-CoA production by the liver out-strips its consumption in the Krebs cycle. This results in the production of ketone bodies (acetoacetic acid, beta-hydroxybutyric acid). Their accumulation causes ketonemia. Ketonemia plus the renal loss of fixed base gives rise to a metabolic acidosis. Renal osmotic diuresis secondary to heavy glycosuria and solute load contributes to the severe intracellular and extracellular dehydration.

Precipitating Factors

In the known diabetic, acidosis is usually initiated by some form of stress. If the diabetes is poorly controlled, this stress need only be mild. In the well-controlled patient, severe stress usually is necessary. Childhood diabetes often is ushered in by acidosis. In this situation the relationship of acidosis to insulin deficiency is clearly seen. Similarly the erroneous omission of insulin in a known diabetic is a common precipitating cause.

Case Reports

Case 1.—A. M., HFH#233743: a forty-one-year-old housewife with diabetes of three years' duration was admitted for treatment of diabetic acidosis. Forty-five units of NPH insulin was her usual daily dose. It had been omitted on the day prior to admission because of vomiting. On examination, the patient was acutely ill, drowsy and dehydrated. The admission blood sugar was 500 mg. per cent and the CO_2-combining capacity was 11.6 meq. per liter. The undiluted serum acetone was moderately positive. After restoration of fluid and electrolyte balance and administration of 230 units of regular insulin, she made an uneventful recovery.

Comment.—This patient reasoned illogically that no insulin was necessary because of vomiting and decreased food intake. Fear of hypoglycemia caused this. The omission of insulin thus sealed her fate; acidosis followed. Nausea and vomiting mean stress and stress means *increased* insulin need. Omission of insulin has precipitated acidosis fifteen times (18 per cent) in our series. We advise our diabetics to continue their usual dose of insulin under such circumstances and use frequent small feedings of some carbohydrate-containing beverage (i.e., ginger ale, milk, et cetera). If glycosuria is heavy, extra doses of quick-acting insulin are prescribed. Omission of insulin in the face of an increased need always aggravates the metabolic upset. *A vomiting diabetic has acidosis until proven otherwise.*

TABLE I. DIABETIC ACIDOSIS—PRECIPITATING CAUSES
(86 episodes)

Infection	27
"Poor Control"	22
Omission of insulin	15
Undiagnosed diabetes	8
Emotional upsets	4
Pregnancy	4
Undetermined	6

Other precipitating factors include infection, pregnancy, poorly-timed surgery, myocardial infarction and thyrotoxicosis. In a few patients, nothing more than a family quarrel or other emotional disturbance was necessary to precipitate this emergency. Table I indicates the precipitating cause of eighty-six episodes of acidosis occurring in fifty-three patients seen from January, 1953 to March 1, 1958, at the Henry Ford Hospital.

Clinical Picture

The development of ketoacidosis may take hours or even days. The patient often observes pro-

From the Division of Metabolic Diseases, Henry Ford Hospital, Detroit, Michigan.

Dr. Green is Assistant Resident in Medicine and Dr. Whitehouse is Associate Physician, Henry Ford Hospital.

*The eighty-six episodes of diabetic acidosis commented upon in this paper include only those cases with an initial CO_2-combining capacity of 15 meq. or below. In fifty-eight episodes (67 per cent) the initial CO_2-combining capacity was 10 meq. per liter or less. Two cases are included without initial CO_2 values because of their classical picture.

gressive glycosuria and the symptoms of uncontrolled diabetes. When acidosis is present, the main subjective complaints are nausea, vomiting and thirst. Air hunger is usually described by the patient as "shortness of breath." Pain in the abdomen is common. Vomiting is almost universal, being present in 90 per cent of our cases.

The patient is acutely ill. He lies quietly. Consciousness is impaired to some degree, ranging from lethargy to deep coma (Table II). The state of consciousness does not parallel the biochemical derangement but does affect the prognosis.[5] Mania and convulsions have been described but are rare.[6] The fruit-like odor of acetone is detected on the breath and deep Kussmaul-type respirations are present. The skin is hot, dry and flushed. Its lack of turgor indicates dehydration, as do the soft eyeballs, dry tongue and collapsed veins. The peripheral pulse is rapid and thready. Body temperature may be high, normal or low, depending upon the precipitating factors, the state of hydration and the adequacy of the circulation. It is often found elevated only after fluid therapy has been started. Fever generally indicates infection. Abdominal tenderness is common and may be well localized. Impacted scybalous feces distend the rectal ampulla. A succussion splash in the epigastrium points to gastric dilatation. Funduscopic examination may reveal the milky vessels of lipemia retinalis.

This description is a typical one. However, some non-conformists will *walk* into one's office and vomiting may also be absent in other instances. The signs and symptoms may merge with those of the antecedent illness.

Case 2.—D. L., HFH #865964 walked into our office one afternoon. He is twenty years old and has had diabetes for two years, allegedly well-controlled with tolbutamide. Constipation was his chief complaint. Physical examination demonstrated marked emaciation, a weight loss of twenty-five pounds and hyperpnea. The elbows and knees bore the lesions of xantomata diabeticorum and funduscopic examination revealed lipemia retinalis. The initial blood sugar was 260 mg. per cent and a CO_2-combining capacity was 2.1 meq. with an undiluted serum acetone of 4+. A serum cholesterol was 1265 mg. per cent. Recovery occurred after 300 units of regular insulin and 3 liters of intravenous fluid. Currently, he is well regulated on 25 units of Lente insulin daily. The hyperlipemia has cleared.

Comment.—Constipation was due to dehydration. In spite of severe biochemical derangement, this patient walked into the office. Always consider acidosis in the acutely ill diabetic patient.

TABLE II. DIABETIC ACIDOSIS—STATE OF CONSCIOUSNESS AT TIME OF DIAGNOSIS

(86 episodes)

Alert	13	(15%)
Lethargic to semicomatose	51	(59%)
Comatose	5	(6%)
Not stated in record	16	(20%)

Laboratory Findings

When diabetic acidosis is suspected, blood is obtained for sugar, CO_2-combining capacity, nonprotein nitrogen (NPN) and a hemogram. The serum acetone test is performed at the bedside. This test most accurately prognosticates the severity of the ketosis. The blood sugar elevation and lowered alkali reserve do not accurately reflect the gravity of the acidosis. The serum acetone test also is a rough index of subsequent insulin requirement and is valuable in differential diagnosis. The results are available in minutes, permitting immediate therapeutic decisions.[4,7] The blood sugar is always elevated and the CO_2 is depressed, but hyperglycemia with a lowered CO_2 is not synonymous with diabetic acidosis.

Case 3.—R. M., HFH #739456, a thirty-three-year-old dietitian was admitted to the Henry Ford Hospital semicomatose with Kussmaul respirations. She had known diabetes of sixteen years' duration. There was 4+ glycosuria and 2+ acetonuria. The initial blood sugar was 500 mg. per cent and the CO_2-combining capacity was 2.9 meq. The plasma acetone was negative to a trace. Later an NPN was found to be 188 mg. per cent. The diagnosis was renal acidosis secondary to diabetic nephropathy. Only 75 units of crystalline insulin was needed to control her hyperglycemia. Death from uremia occurred three days later.

Comment.—Progressive renal failure is common in patients with long-term diabetes. Both uremic and diabetic acidosis give nausea, vomiting, stupor and dehydration. It is not uncommon for hyperglycemia to be striking when such a patient presents himself. Under these conditions the only simple reliable means of distinguishing the two conditions is the serum acetone test. With a suggestive clinical picture, the triad of hyperglycemia, decreased alkali reserve and ketonemia is pathognomonic of diabetic acidosis. Renal acidosis will be present without significant ketonemia. On the other hand, pre-renal azotemia is not uncommon in diabetic acidosis.

There is usually a leukocytosis of 12,000 to 40,000 per cu. mm. with an associated neutro-

philia. In sixty episodes of acidosis in which white blood cell counts were obtained on admission, forty-four cases (73 per cent) were over 12,000. The highest recorded was 44,000. Prior to therapy, hyperkalemia, hyponatremia, and hypochloremia exist. Urinalysis reveals heavy glycosuria and ketonuria, as well as albumin and casts. In the fresh specimen, diacetic acid will be found.

Differential Diagnosis

Diabetic acidosis is suspected clinically, but confirmed chemically. Every physician's bag should contain the necessary materials to detect glucose and acetone. If the patient is a known diabetic, the problem is simplified. Therefore, the most cursory history should not omit this line of questioning. The presence of 4+-glycosuria, strong acetonemia, with a compatible history and physical findings confirm the diagnosis of diabetic ketoacidosis. Immediate differentiation from hypoglycemia is also vital. Misdiagnosis may be tragic.

Case 4.—HFH #749538. This comatose ten-year-old boy was admitted to the Henry Ford Hospital for the treatment of diabetic acidosis. He had been transferred from an infectious disease hospital where the diagnosis had been made. One month previously the cardinal symptoms of diabetes had been noted but not appreciated. Prior to admission, a sort throat developed, followed by abdominal pain and vomiting. With the occurrence of coma, the possibility of encephalitis was considered, and he was taken to the infectious disease hospital where the correct diagnosis was established. Before admission to the Henry Ford Hospital, 100 units of regular insulin had been given. At the time of his arrival, coma had been present for over twelve hours. The skin was warm, dry and pale. Kussmaul respirations were present, and dehydration was extreme. Blood pressure was 65/20 with tachycardia and mild fever. An acetone odor to his breath was noted. The admission blood sugar was 564 mg. per cent and the CO_2-combining power was 4.9 meq. Before his expiration four hours following admission, a total of 300 units of regular insulin and 2000 c.c. of intravenous fluid had been given. Stimulants were used without benefit.

Comment.—The earlier the correct diagnosis is established, the better is the prognosis. This case illustrates the rate of development of diabetic acidosis and the diagnostic problem in the unconscious patient. Diabetic acidosis must always be considered in the comatose patient. However, the majority of patients with diabetic acidosis are not completely unconscious. Once deep coma has occurred with acidosis, the prognosis worsens; and unless treatment is vigorous and instituted in time, there will be irreversible changes.

Appendicitis, intestinal obstruction, cholecystitis and other abdominal emergencies may not only be simulated by ketoacidosis, but may co-exist with it. In diabetic acidosis, the abdominal pain usually appears after the onset of nausea and vomiting. In appendicitis, the reverse is usually true. Response to treatment is the only certain way to differentiate ketoacidosis alone from its concomitant association with an intra-abdominal infection. Abdominal signs will persist if the latter exists, and a necessary operation may be carried out after the acidosis has been corrected. Surgery is contraindicated in the presence of intreated acidosis. Gastroenteritis may be distinguished by the presence of diarrhea, which is uncommon in uncomplicated acidosis. Acute pancreatitis and acidosis may occur together.

In any stuporous or unconscious diabetic patient, the lack of signs of dehydration and a rapid onset suggest hypoglycemia. Here the pulse is full, the skin moist, and a tremor present. Glycosuria may be present. When in doubt clinically, we draw blood for glucose, and give 25 to 50 gm. of concentrated (50 per cent solution) glucose intravenously while awaiting the blood sugar report. In the majority of cases with severe hypoglycemic shock, signs of improvement occur within ten to fifteen minutes.

Neurological disorders, other metabolic diseases, and psychoneurosis enter into the differential diagnosis of diabetic acidosis. In these conditions, if the serum acetone test is negative, the diagnosis of diabetic acidosis can be eliminated. This is true even in the presence of uncontrolled diabetes. Intoxications occasionally occur in the diabetic and must be appropriately identified. Salicylate poisoning may give a clinical picture strikingly similar to diabetic acidosis. Cohen has recently commented on this point.[2]

Treatment

If the diagnosis is made in the home or office, an initial dose of insulin can be given at once. It is feasible to start intravenous fluid while awaiting hospital admission. Many successful programs of treatment are in use; hence it is more important to understand what is to be accomplished and how to do it than to memorize any specific set of rules. In every case, the patient must

be followed closely. The general plan of management supplies the large amounts of insulin, water and electrolytes which are lacking. Correction of any associated disease is carried out at the same time. The severity of the ketonemia is proportional to the total insulin need. We use large initial doses of insulin and follow this with smaller amounts after the blood sugar has fallen to near-normal levels. Normal saline solution intravenously is used initially because of its general availability. This is followed by a more physiologic hypotonic solution.† Solutions containing glucose or fructose are not used at the beginning of therapy for several reasons: (1) They eliminate the use of the blood sugar as an indication of chemical improvement. (2) They increase the extracellular hyperosmolarity which in turn aggravates intracellular dehydration. (3) They enhance renal osmotic diuresis and potassium loss. Glucose solutions are used only after the blood sugar approaches normal levels. When glucose is added to the program, potassium is given, for now the effects of hypokalemia may become manifest. Insulin is administered initially at one to three-hour intervals, depending upon the need and response of the patient. Various guides including the blood sugar, serum acetone and urinalysis are used to follow the progress of the patient. We have rarely found it necessary to give colloidal solutions or vasopressor agents, even when hypotension exists. Expansion of the circulating blood volume with water and electrolytes always corrects it.

We prefer to give 100 units of crystalline insulin initially if the undiluted plasma is 4+ for acetone. Additional crystalline insulin is given when the blood sugar report is obtained, according to the following scale:

Over 400 milligrams per cent—100 units
Over 600 milligrams per cent—200 units
Over 1000 milligrams per cent—300 units

Quick-acting insulin (regular or crystalline) must be used. All other hypoglycemic agents are unsuitable. Not over 100 units is given in a single site to avoid a depot effect. Intravenous administration is unnecessary unless hypotension is present. The initial amounts of insulin are less in the elderly patient and in the child where insulin resistance is less prominent.

Three hours after the first insulin dose, blood is again tested for sugar and acetone. If reasonable improvement is not evident, the initial dose is repeated or increased. If the patient is worse, boldness is necessary. On the other hand, if there has been a 50 per cent drop in the blood sugar, only 50 or 100 units of additional insulin are given if the blood sugar still remains over 200 mg. per cent. These tactics are repeated until the blood sugar is under 200 mg. per cent. At this point, 10 to 30 units of insulin are given every two to four hours, depending upon the degree of glycosuria. A steady decline in the plasma concentration of acetone also indicates adequate insulin effect.

Case 5.—F. C., HFH #786252, a man, aged fifty-one, with known diabetes of seven years' duration was admitted to the hospital in diabetic acidosis. Admission blood sugar was 405 mg. per cent and CO_2-combining capacity was 7.8 meq. The serum acetone was strongly positive. Severe oliguria was present. He was hypotensive. After six hours and 275 units of regular insulin, the blood sugar was 720 mg. per cent. Only saline and saline-lactate solutions had been given. His condition was worsening. In the next three hours, 550 units of insulin were given, and nine hours after admission the blood sugar was 540 mg. per cent. The patient continued to receive large doses of insulin. Fourteen hours after admission, following a total of 1175 units of regular insulin, a blood sugar of 118 mg. per cent was finally achieved. The plasma acetone test at this time was negative. His clinical course later was uneventful except for prolonged (forty-eight hours) anuria.

Comment.—This patient exemplifies the marked insulin resistance occurring in acidosis. Despite "average" doses of insulin, his blood sugar continued to rise and his condition worsened. It was not until vigorous insulin therapy was given that he recovered. Persistence of hyperglycemia and acetonemia indicates the need for truly large doses of insulin. The longer adequate insulin is delayed, the more will be needed.

Within six to twelve hours after initiation of therapy, many patients will be able to tolerate oral feedings. A few may do so earlier. Oral fluids should consist of fruit juice, milk broth or gruel given on an hourly basis. All of these contain significant amounts of potassium. If additional potassium is indicated, it may also be given orally. For patients who cannot eat, we use a 5 per cent

†*Saline-Lactate Solution*
Normal saline 600 c.c.
1 molar sodium lactate..... 40 c.c.
Sterile water qsad 1000 c.c.

glucose solution, to which 20 to 40 meq. (never over 60 meq.) per liter of potassium has been added. This solution is administered at a rate of 250 to 350 c.c. per hour.

A physician remains with the patient until the crisis has clearly passed. A wall chart displays the vital signs, level of consciousness, deep tendon reflexes, bowel sounds and hourly urinary output. Catheterization is carried out only if the patient cannot void. The deep tendon reflexes and bowel sounds are very rough guides of the level of serum potassium, and certainly no patient with a silent abdomen will be fed. Urinary output informs one of the state of hydration and the safety of potassium therapy. Intravenous potassium is contraindicated if the urinary output is less than 25 c.c. per hour. Gentle lavage of the stomach with warm water is advisable for the relief of gastric distention. This permits an earlier oral intake. Removal of a fecal impaction also gives much relief. Narcotics are contraindicated and sedatives should be used cautiously.

Hypoglycemia is not a common complication of treatment until the early stages have passed. It is easily corrected with 50 c.c. of 50 per cent glucose solution intravenously, followed by a liter of a 5 or 10 per cent glucose solution. If a patient under treatment is improving and then worsens, one should suspect either hypoglycemia or hypokalemia. The latter is evidenced by rapid, shallow respirations, weakness, areflexia and electrocardiographic changes. Hypokalemia is treated by intravenous potassium as indicated above or by supplementary oral potassium. Clinical hyperkalemia is rare in diabetic acidosis and has not been observed in our experience.

Vascular collapse results when great quantities of fluid have been lost. This is corrected by water, insulin and electrolytes. Blood or vasoconstrictors are not ordinarily necessary nor are they particularly effective. Oliguria and anuria occur in severely dehydrated patients or in those with renal damage. This may become irreversible. In addition to rehydration, the artificial kidney has been used.[1] Our experience indicates that the great majority will recover with adequate hydration alone.

If most of the repair solutions have consisted of saline alone, hyperchloremic acidosis may be present during the recovery phase. This is ordinarily not serious and will be corrected by the renal excretion of the excess chloride.

Rarely, unconsciousness may persist for some time after the patient has recovered chemically. We have seen one such case in which the patient remained comatose for over twenty-four hours, despite the fact that her diabetes had been under fair control for the better part of a day. Lawrence has commented upon this.[6]

Such a severe metabolic derangement as ketoacidosis makes itself felt in other ways. The expectant mother often loses her child. Diabetes becomes more difficult to control following acidosis. We currently are caring for a patient with a painful paraparesis related to an episode of acidosis. Neuropathy is not an uncommon complication. Ditzel et al[3] have related retinal damage to acidosis. The prognosis for life, even in the severe case, is usually good with proper management. Before insulin, patients whose alkali reserve was less than 10 meq. per liter rarely survived. In our series of eighty-six episodes taken from 1953 to the present, there were three deaths for a mortality of 3.5 per cent. Causes of death were: (1) hypokalemia, (2) irreversible acidosis, and (3) acidosis plus carcinomatosis. We have had more satisfactory results since the institution of our "diabetic acidosis team." A member of this team is called into action whenever a patient is admitted with diabetic acidosis, and it is his duty to remain with the patient until the danger has clearly passed.

Summary

Patients with diabetic acidosis are critically ill. The diagnosis must be quickly established and treatment initiated. Management should be energetic, and the patient must be carefully followed until he is out of danger. Many complications can occur with or from acidosis, and it is best prevented by rational and careful management of the diabetic patient.

Addendum

Method for Performing the Serum Acetone Test.—Serial tube dilutions of serum or plasma are prepared as follows: Full strength; one drop of plasma with one drop, three drops, and seven drops of water or saline. One drop from each tube is then tested with one of the commercially-available acetone test powders or tablets. The end point is read in thirty seconds. Each result is graded from 0 to 4+. As one is following a patient with acidosis, the diluted specimens will indicate an improvement first, and finally the undiluted

(Continued on Page 1437)

The Correlation of the Fall of Blood Sugar with the Reduction of Weight

By Henry J. John, M.D., F.A.C.P.
Cleveland, Ohio

THE DEVELOPMENT of diabetes frequently follows obesity. The well-being of an individual depends on his maintenance of normal weight. This is important not merely in the question of the possibility of developing diabetes, but also of developing many other ills—hypertension, cardiac accidents, arteriosclerosis et cetera. These accidents are not entirely prevented if a person carries normal weight all his life, but they occur more frequently in the obese. Life insurance companies figures have been proving this concept for a number of years. Prevention of obesity and prevention of its resulting complications, then, is much more to the point.

If obesity does bring on hyperglycemia, this often can be corrected by placing an obese patient on a low caloric diet and thus reducing his weight to normal or near normal; for, if he keeps to a reasonably low diet, he can continue to carry a normal blood sugar level throughout the day. The accompanying charts demonstrate this fact.

It is well recognized that an individual normally has a tendency to maintain a certain average body weight and that this average is maintained by the regular intake of water and food. The food is absorbed and liberated in the body metabolism in the form of heat and energy, this being constantly given off or lost. The excess foods are stored in the tissues in the form of combustible materials such as proteins, carbohydrates and fats, which are the readily available materials for the supply of energy when the food intake is not sufficient to supply the metabolic loss. In the first case, then, where the supply is in excess of the metabolic needs, there is storage—chiefly of fat, which results in weight increase; and in the latter case where the supply is inadequate, the storage materials are being used up and there results a decrease in the body weight which, if carried far enough, we term as "wasting of the body."

In twelve cases of obesity (three men and nine women) concerning which a paper appeared[2] in 1927—patients in whom the carbohydrate metabolism had been studied by means of glucose tolerance tests, the overweight ranged from 29 to 115 per cent. There was no glycosuria in ten cases. The fasting blood sugar was normal in eleven, of which four were patients having diabetes of varying severity. The fasting blood sugar was above normal in but one who turned out to be a diabetic patient. Of the twelve cases of obesity, two were frankly diabetic and three were mildly diabetic or "pre-diabetic." This shows a rather high incidence of diabetes in obesity cases.

There seem to be three separate groups of obesity in which we deal, associated with the following causes:

1. The exogenous group which is perhaps the most common type—namely those taking in an oversupply of food for the body. To differentiate this type of obesity, we resort to the basal metabolism studies which, in these cases according to Means,[3] always evolve to be within normal limits.

2. The endogenous group, in which an upset endocrine etiology is usually present. This, however, is a rare condition—about one case in a thousand. Here we deal with a group belonging to thyroid deficiencies, myxedemas, which carry with them a low basal metabolic rate. Obesity in myxedemas, however, according to DuBray,[1] is less constant and striking than the undernutrition seen in hyperthyroidism. Following thyroidectomy, one frequently notices an increase in body weight.

Next is the gonad deficiency group. This is quite common in the female sex after the onset of menopause and also in castrated animals and men.

Then the hypophyseal deficiency group, characterized as the Fröhlich syndrome. This is less well understood, due to the complexity of the gland and the functioning of its anterior and posterior parts. The basal metabolic rate offers much information in all of these groups, being low. Organotherapy is possible in these groups

and offers much hope from the therapeutic point of view.

3. This group described by Strauss and his co-workers[5] is tentatively designated as a true constitutional variety. Members of this group are unable to lose weight even on a very low caloric diet (600 to 1,000 calories per day over a long period of time) and the basal metabolism is found to be within normal limits. The metabolism in this group seems to be functioning in a very economic way and it doesn't seem to depend either on the exogenous source of food nor any endocrine disturbance and can thus be differentiated from the other groups.

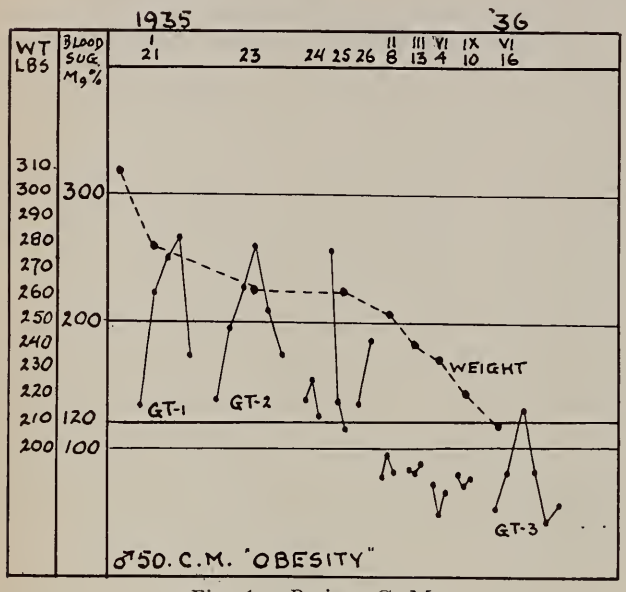


Fig. 1. Patient C. M.

When one is confronted with a case of obesity, two questions should enter one's mind: *Is it but an idiopathic obesity due to some of the previously described causes?* or *Is it a diabetic condition?* Even though the patient may carry some of the earmarks of the exogenous, the endogenous or the idiopathic causes which might explain the reason for such an obesity, we have not done our full duty to the patient if we have not included in such a study an evaluation of his carbohydrate metabolism, preferably by glucose tolerance test. In 1927, I published[2] a chart representing twelve glucose tolerance tests on obese cases. Of the twelve, only four showed a frank diabetic curve; one showed a pre-diabetic curve and seven perfectly normal glucose tolerance curves. Of the four diabetic curves, only one showed a fasting hyperglycemia, the rest showed normal fasting

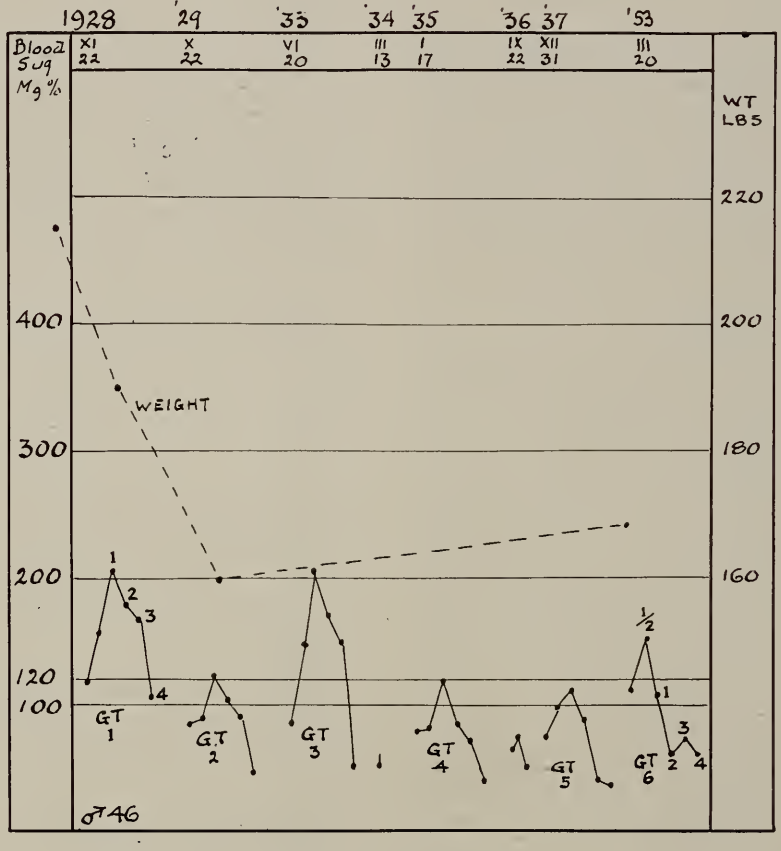


Fig. 2. Patient S. K.

blood sugar values. This emphasizes the importance of not accepting merely the fasting blood sugar reading and forming an opinion on that

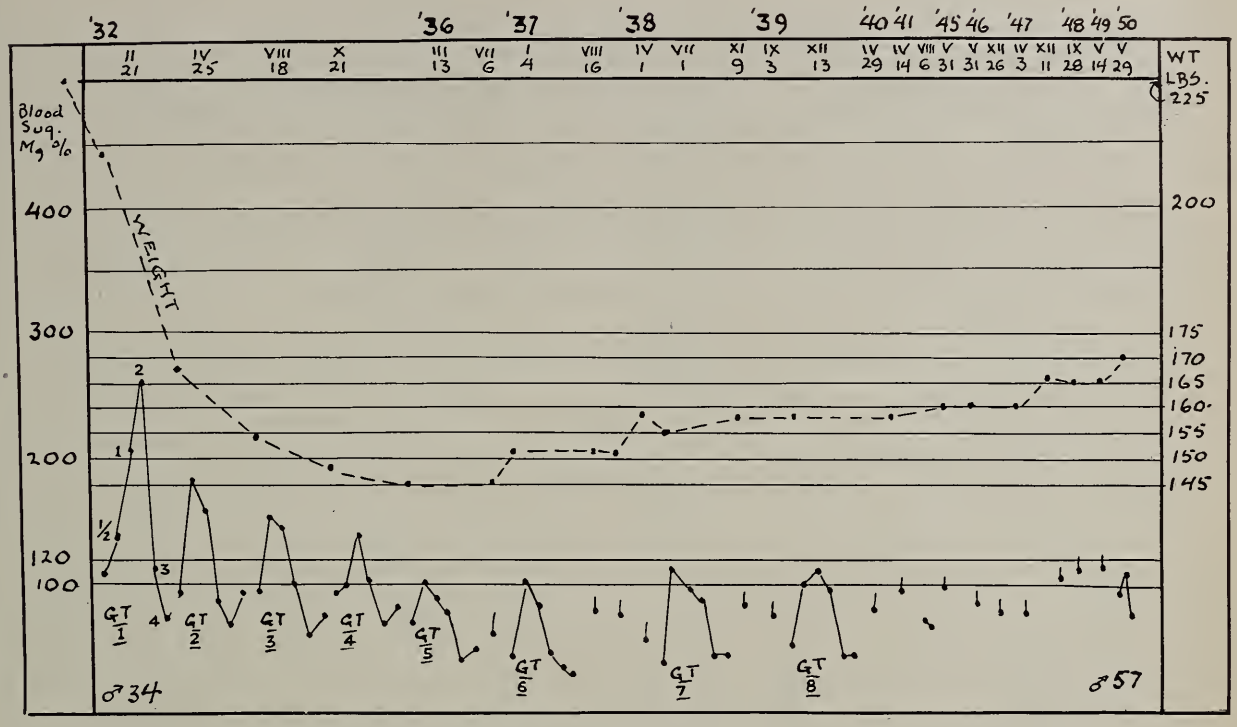


Fig. 3. Patient V. B.

alone. Glucose tolerance test is imperative in such cases.

Figures 1-4 (5 cases) show an improvement of carbohydrate tolerance with the reduction of weight. Such patients, once they succeeded in reducing their weight by eating in moderation, keep on eating moderately and thereby continued to have a normal carbohydrate metabolism. Not only this, but they reported feeling so much better once they have succeeded in reducing, that they rarely went back to adiposity. That is the positive gain in their medical problem for it concerns not only diabetes but other penalties they have to pay because of their adiposity.

Figure 1 (Patient C. M.) represents laboratory data on a man fifty years of age who was 52 per cent overweight and who showed glycosuria. The first glucose tolerance test, done on January 21, 1935, showed a frank diabetic curve. Even the fasting blood sugar was slightly elevated (140 mg. per cent). He was then placed on a low caloric diet. In less than two months his weight came down gradually and in eighteen months he had dropped from 310 to 209 pounds in weight. Note also the changes in his blood sugar levels and the last glucose tolerance test which is perfectly normal.

Figure 2 (Patient S. K.) represents studies on a man forty-six years of age. He had a bad history of diabetes in his family. Glycosuria was found on life insurance examination. His weight was 215 pounds which was 36 per cent overweight. The first glucose tolerance test in 1928 frankly showed a diabetic curve although the fasting blood sugar was normal. In less than a year, his weight dropped to 160 pounds (which was normal for his height) on a reducing diet. Note also that the G.T. 2 in 1929 was normal. Then, as some patients do, he got a bit careless in his dietary habits so that G.T. 3 again showed a return to a diabetic condition. After that, all subsequent checks showed normal curves. I checked him last on September 23, 1955, when all three blood sugars (t.i.d., a.c.) were normal. This shows again what a reduction of overweight, which means cutting down on the calories, does to the carbohydrate metabolism. The patient is now seventy-three years old, is carrying normal weight and is in good health, working every day.

Figure 3 (Patient V. B.) is the chart for a man, thirty-four years of age, quite obese, 37 per cent overweight. He is in good health. A year prior to these studies he developed some polyuria during the day and nocturia (lx) during the night. Glycosuria was found two days prior to the studies, there having been none a year previous to this.

Because of the glycosuria, a glucose tolerance test was done in 1932, which showed a borderline case of diabetes. The imminent problem was to reduce the patient's weight. This he accomplished. From a maximum 225 pounds, his weight dropped to 145 pounds in nine months. Since then only a slight rise has occurred during the twenty-three years of observation. The remarkable thing has been the improvement in his blood

sugar level. Eight repeated glucose tolerance tests were performed and the results are shown; in fact the G.T. curve dropped to normal in three-months' time and has stayed normal the rest of the years.

Summary

Five cases of obesity are presented—patients, who at the beginning showed a disturbance of carbohydrate metabolism of various degrees of severity. By placing them on a reducing diet, not only did they lose weight, but, at the same time, their carbohydrate metabolism improved—in fact, became normal and stayed thus. This shows what can be accomplished if we start the obese patients as early as possible on a reducing diet. If we fail in this, in time these patients may become frankly diabetic—a tragedy this writer has witnessed repeatedly.

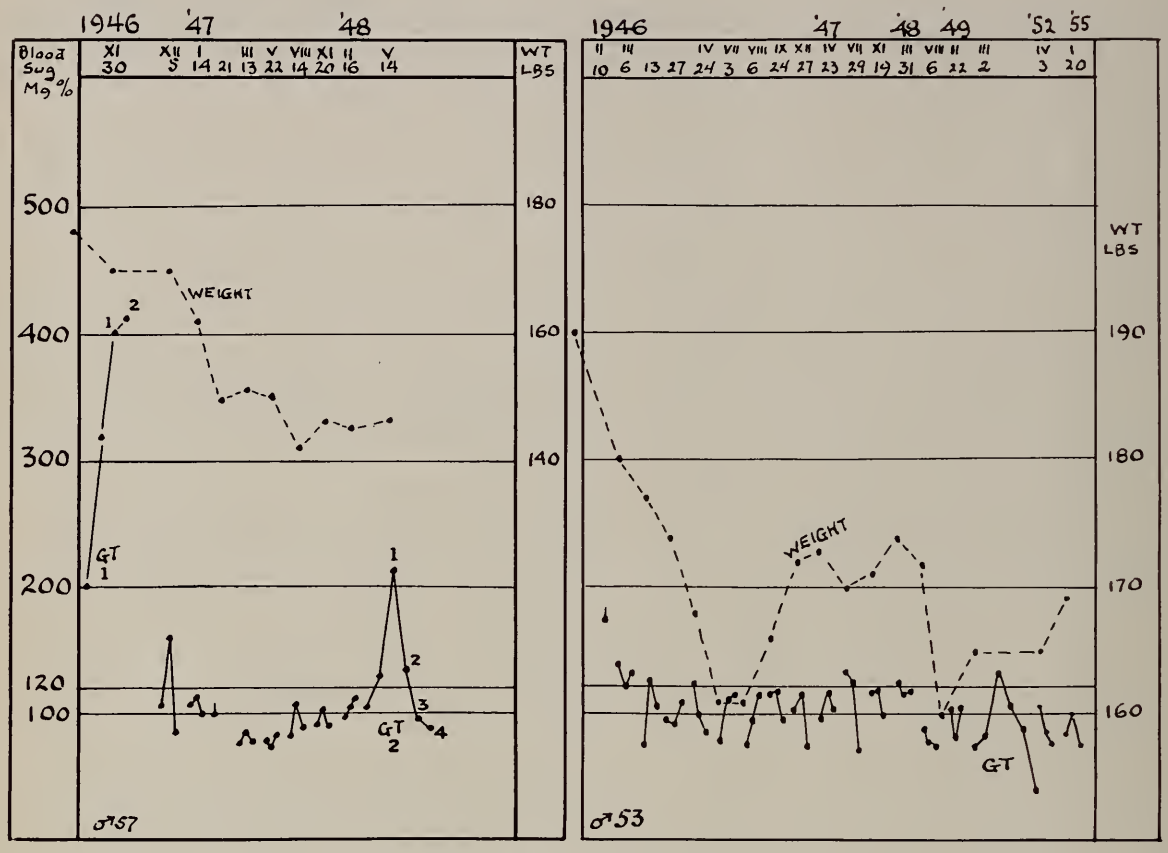


Fig. 4. Patients M. Z. and J. C.

Here, then, we have an obese patient who by going on a reducing diet improved his carbohydrate tolerance, which improvement lasted over a period of twenty-three years. What would have happened had we not reduced him? In my opinion, based on other similar cases, a frank diabetic condition would have resulted.

Figure 4 (Patients M. Z. and J. C.) represents two cases. The first (on the left) is that of a man fifty-seven years old. He came in because glycosuria had been found. A glucose tolerance test was performed in 1946 (note the high rise of blood sugar). On diet, his weight was reduced from 178 to 142 pounds and there it stayed with just a bit of fluctuation. The blood sugar came down to normal and when the G.T. test was repeated in 1948 this too was normal.

The second case (on the right) represents data on a man, aged fifty-three, who was also obese. His weight upon first examination was 190 pounds, which, on diet came down to 162 pounds. At the start he too showed hyperglycemia which was not high but definitely above normal. As soon as he went on a reducing diet, the blood sugar level came down to normal. He kept his weight reduced until his death of coronary occlusion in 1955.

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The Kidney in Diabetes

By Bruno J. Peters, M.D.

Milwaukee, Wisconsin

DIABETES MELLITUS predisposes not only to infection but also to severe early vascular disorders. The purpose of this paper is threefold, first, to present a review of the common sites of infection of the kidney and urinary tract, second, to discuss the degenerative complications of the kidney as they occur in long-term diabetes and third, to present a brief review of the treatment.

The incidence of infections of the urinary tract in the diabetic is from 12 to 20 per cent as compared to about 4.5 per cent in the non-diabetic population. The predisposition of the diabetic to infection is evident when one considers this high percentage. The most frequent site of infection is the bladder with development of simple cystitis. The cystitis may follow extension of infection from the urethra, obstruction in the urethra, upper urinary tract or prostatic infection. Upper respiratory infections, and infections in the pelvic structures such as acute appendicitis or dysenteries may also produce cystitis. Stasis as occurs in a cystocele, diverticulum of the bladder, or bladder paralysis in the diabetic with diabetic neuropathy is also a major cause. The old dictum that residual urine becomes infected is confirmed in these latter lesions. Perineal contamination with feces in women, and subsequent urethral spread, may trigger cystitis which proper perineal cleansing and rectal wiping may prevent. It is well-known that catheterization is an inciting cause of simple cystitis or hemorrhagic cystitis. In the office or hospital, a satisfactory urinary specimen can be obtained without catheterization. In males it can be obtained by using the midstream specimen of a two glass test. In females vaginal and perineal bathing followed by local cleansing with Zephiran prior to voiding is adequate for routine analysis and cultures if cleansing is done with care.[1] In simple cystitis the patient complains of frequency, urgency and dysuria. The urine shows a predominance of pus cells. Patients with hemorrhagic cystitis are more seriously ill with chills, fever, and grossly bloody urine.

Acute pyelonephritis may result from a progression upward of the infection from cystitis, or may be due to obstruction or a hematogenous spread from a focus of infection such as from an infected bowel with bacterial invasion of the kidney. The renal involvement may be unilateral or bilateral. The patient presents himself with a clinical picture not unlike that of cystitis, however; in addition, chills, fever, and tenderness over one or both kidneys are present. The blood pressure is normal and no azotemia is present, except in those with advanced chronic pyelonephritis. It is essential that treatment be energetic and thorough during the acute phase. Those patients not treated satisfactorily develop the protracted infection seen in chronic pyelonephritis, which produces progressive destruction of the kidney with diminished renal function and hypertension, and ultimately the disease leads to invalidism and premature death. Urinary proteinuria and pyuria persist continuously in varying degrees. Eventually hypertension becomes evident and progressive, at times ending up in a malignant phase. Hypochromic anemia as a result of the azotemia is pronounced. The azotemia progresses, and the patient dies in uremia. Uremia, however, may be reversible if the etiology is due to an acute exacerbation of an infection superingrafted on a chronic lesion. Renal function may return sufficiently after treatment to cause a reduction in azotemia and marked improvement of the patient. We have seen several patients in whom this type of reversal has taken place. The use of the artificial kidney has been a great factor in changing the prognosis of this stage, and one should not consider this degree of involvement fatal even in face of a genuine uremia.

Necrotizing renal papillitis, first described in 1877 by Friederich[4] is another serious renal infection. The lesion is found not only in those with diabetes mellitus, but, as shown by Robbins et al.,[7] does occur in others in the presence of

Dr. Peters is Associate Clinical Professor of Medicine, Marquette University School of Medicine, Milwaukee, Wisconsin. From the Department of Internal Medicine, Marquette University School of Medicine; Milwaukee County Hospital, Milwaukee, Wisconsin; Veterans Administration Hospital, Wood, Wisconsin.

obstruction and severe renal infection. In this lesion there is more or less complete necrosis and shedding of the apices of the renal papillae. The older diabetic has a greater predisposition to necrotizing renal papillitis. It is thought that infection and the higher incidence of vascular disease and thrombi in the kidney of the older patient are the responsible factors in the pathogenesis of the lesion. Clinically the patient presents himself with a fulminating infection associated with chills, fever, septicemia, oliguria and progressive uremia. Many have colicky pain caused by the sloughs of the apices of the papillae obstructing the ureters. The urine is grossly bloody and has bits of renal tissue in the sediment. The diagnosis can be suspected but is difficult to establish. In those in whom pyelography is done the roentgenologic picture resembles that of tuberculosis of the kidney with a ragged irregular contour of the calyces. No patient having bilateral involvement has been known to survive.

Suppurative lesions of the kidneys produce severe infections in diabetic patients and are found not infrequently in those dead of diabetic coma. The three common lesions found are multiple small abscesses of the kidney, carbuncle of the kidney, and perinephritic abscess. Multiple abscesses of the kidney may result from a severe pyelonephritis, a staphylococcal bacteremia, or from invasion of the kidney by means of a hematogenous spread of infection from a skin furuncle, carbuncle or a sore throat. Abscesses may heal in some, in others the small abscesses may coalesce to form a carbuncle of the kidney. The lesion may continue to destroy renal tissue and eventually rupture through the capsule to produce a perinephritic abscess. The diagnosis of multiple small abscesses is difficult to establish because the symptoms may resemble those of any fulminating pyogenic kidney infection. Pain localized to one kidney should make one suspicious of a carbuncle. Perinephritic abscess should be considered when a mass is felt in the flank associated with pain or tenderness over one kidney and the x-ray film reveals a loss of the psoas muscle shadow on the affected side. Suppurative lesions usually require surgical drainage or removal of the infected kidney. Medical treatment is seldom successful in carbuncle of the kidney or perinephritic abscess. On occasion, a kidney with a few small abscesses may respond to medical management.

Infections of the kidney may be due to Gram-negative or Gram-positive organisms. The proper treatment of any of the preceding infections is predicated upon isolating the exact organism. The nature of the primary lesion, urine reaction, and bacterial flora should be known. As a rule, infections in acid urine respond more readily than those in which an alkaline urine is produced. Bacillary infections respond effectively to mandelic acid if the urine is kept acid by the supplemental use of ammonium chloride or sodium acid phosphate. In advanced kidney disease these latter drugs should not be used if uremia is present since they may aggravate the existing acidosis and uremia. The sulfonamides are effective against the majority of the Gram-negative bacilli and most of the Gram-positive cocci. Furadantin likewise is very effective in this group. The use of Streptomycin is not without problems, because with its use organism resistance develops and tuberculosis of the kidney may be obscured. The other antibiotics such as Chloromycetin, Aureomycin and Tetramycin are very effective and may be used if organism-sensitivity is demonstrated. Diabetic control must be meticulous in all of the above complications. Catheter drainage should be used only if there is obstruction or retention of urine with stasis.

The kidneys in diabetes mellitus suffer from the degenerative vascular lesions and represent an end organ for this involvement. The degenerative diseases of the kidney in diabetes were described in 1806 by Dupuytren.[2] He made reference to the presence of albuminuria in diabetes. Later Ehrlich[3] described glycogen nephrosis, a reversible lesion found only in uncontrolled diabetes. Renal arteriosclerosis was the only other lesion described until Kimmelstiel and Wilson[6] introduced glomerulosclerosis. Renal arteriosclerosis is a degenerative disease and a relatively frequent lesion in the elderly diabetic. There is involvement of the efferent and afferent arterioles of the glomerulus, an area not involved in the non-diabetic. Clinically, other than elevation of blood pressure and evidence of arteriosclerosis, nothing else is found. Urine findings may include a mild albuminuria with normal urine sediment while others may have a few red blood cells. Insulin and better diabetic regulation have lengthened the life span of diabetic patients and they now usually have a long-term disease. It is in the long-term diabetic patient that the syndrome as described by Kimmelstiel and Wilson and the typical lesions of glomerulosclerosis make their appearance. In the initial

description seven of the eight patients displayed a clinical picture of edema, hypertension, marked proteinuria, hypercholesterolemia and azotemia. Since then, however, many cases of glomerulosclerosis have been reported in whom all degrees of severity and types of clinical and pathological variations occurred. The characteristic lesion on microscopic section consists of a sharply circumscribed nodular dense hyaline mass lying in the center of glomerular lobules. Some glomeruli contain several of these ball-like deposits, others are filled so that the entire glomerulus is involved. The kidney biopsies done in early diabetes may reveal no evidence of nephropathy while other biopsies reveal a diffuse hyalinization of the glomerular basement membrane, distinct from membranous glomerulonephritis and arteriolar nephrosclerosis,[5] and still others show the typical nodular lesions. These findings appear to support the theory that diabetic nephropathy with nodular lesions is a further development of the diffuse lesions. Some diabetic patients with the nephrotic syndrome likewise may have only an arteriosclerosis or a moderate diffuse thickening of the basement membrane of the glomerulus with hyaline thickening of the arterioles. Generally, in a diabetic with a typical clinical picture and capillary aneurysms in the fundi, one will find glomerulosclerosis. Some workers feel that the development of glomerulosclerosis, either diffuse or nodular, correlates with the duration of the diabetes and its onset in early life but not with the severity of the disease. Perhaps it is a mixed type of vascular degeneration, with aneurysm formation and infection, or a consequence of a primary disturbance of carbohydrate metabolism and an intrinsic component of this derangement. Although electron microscopy of kidney biopsies is still in its infancy, it constitutes a new approach with unlimited possibilities and may help resolve the true pathological lesion and its evolution in the diabetic.

Not all patients with glomerulosclerosis present a typical picture. Some have the retinopathy, others have a heavy proteinuria, still others may develop congestive heart failure, or have uremia. The juvenile with long-term diabetes will have the typical mixed nephrotic-nephritic picture with retinopathy. The nephrotic elements present are: (1) marked edema, (2) heavy proteinuria, (3) lipoid casts, (4) hypoalbuminemia, and (5) hypercholesterolemia. The chronic nephritic elements being: (1) red blood cells, granular casts and a low specific gravity in some, (2) hypertension with subsequent heart failure, (3) azotemia with subsequent uremia, (4) retinopathy (hypertensive, mixed or diabetic) and (5) anemia.

The differential diagnosis of the nephrotic syndrome includes many things, but the most confusing are that of chronic glomerulonephritis, amyloidosis, renal vein thrombosis, tridione poisoning, lupus erythematosis and hypertensive or arteriosclerotic heart disease in total failure. In those without edema, febrile albuminuria, orthostatic albuminuria and chronic pyelonephritis must be considered. Each of these presents a problem, and even after careful evaluation and laboratory work-up it may not be possible to arrive at a definite diagnosis. A renal biopsy may help establish the diagnosis.

The prognosis is hopeless at present, and we can offer only symptomatic and supportive care. Most patients die as a result of heart failure, renal failure or myocardial infarction. With the discovery of the newer hypoglycemia agents, a greater impetus has been given to the search for the true etiology and physiology of diabetes and what it does to the body. Repeated renal biopsies and electron microscopy will help clarify the kidney pathology, and these serial studies should aid in establishing the time of development of the lesion and its relationship to poor or meticulous diabetic control. Perhaps somewhere in this metabolic catastrophe someone will discover the exact cause —not only of glomerulosclerosis, but also of arteriosclerosis and other vascular diseases.

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Current Status of the Oral Hypoglycemic Agents

By Leo P. Krall, M.D.,
Robert F. Bradley, M.D.,
Priscilla White, M.D.

Boston Massachusetts

THE PRESENT furor concerning the use and abuse of oral hypoglycemic agents had its foundation in the 1926 paper of Frank *et al.*[1] which described Synthalin. This was hailed as the first oral substance[3] with the ability to successfully lower blood and urine sugar, but increasing reports of toxicity, coupled with the successful development of insulin, led to the disappearance of Synthalin from the therapeutic horizon.

At a later date the reports of Janbon,[2] Loubatieres[8] and others concerning the hypoglycemic effectiveness of the sulfonylurea preparations led to the development of carbutamide and tolbutamide. Now that the biguanide derivatives[12] have shown some effectiveness and studies have been started with chlorpropamide, it is evident that not only is this new era just beginning but signs indicate that a plethora of pills with hypoglycemic properties may be just around the corner.

Present Preparations

(Table I)

In recent years six oral hypoglycemic agents have been studied and reported in the literature. Three of these, carbutamide (BZ55), tolbutamide (Orinase) and chlorpropamide (Diabinese), are sulfonylurea derivatives, while phenethylformamidinyliminourea (DBI), as well as the normal-amyl (DBB) and isoamyl (DBTU) analogues, are biguanides synthesized from formamidine. These last three are somewhat similar and will be considered as DBI, the phenethyl analogue. These compounds of diverse origin have one common denominator—the ability to lower blood sugar levels in many patients under certain conditions.

Evaluation Problems

The evaluation of these drugs is made complex by the fact that many diabetic patients when vigorously treated with diet alone or with diet and insulin have remission-like improvement in their diabetes. This is characteristically true of juvenile-onset diabetic persons in whom, as reported by one of us (P.W.), a remission phase is recognized in one out of three cases and usually occurs in the third month after treatment, generally lasting another three to twelve months, when diabetes intensifies to a total disease. Even adult diabetic patients sometimes improve both clinically and chemically after careful treatment. They subsequently have lowered blood sugar values. During these periods of remission or improvement sometimes insulin is unnecessary and certainly any oral substitute could not be adequately evaluated without placebo substitution or other measures to insure the integrity of the study.

The Sulfonylurea Compounds

Carbutamide (BZ55) has been studied in 350 subjects, tolbutamide (Orinase) in over 1,400 patients and chlorpropamide (Diabinese) in seventy-five cases by Root, Marble and Hadley of our group. Since these are all sulfonylureas, it is likely that their mode of action is similar and they also have approximately the same indications and limitations. As pointed out by Mehnert *et al.*,[9] the substitution of the methyl for the amino group in the para position of the benzene ring results in three changes in properties: "(1) Tolbutamide is not bacteriostatic. (2) In the same dosage, tolbutamide is not quite as hypoglycemic as carbutamide. . . . (3) Tolbutamide so far has shown itself to be much less toxic than carbutamide."

The mode of action of these preparations is now thought to be due either to increased insulin secretion by pancreatic stimulation or to decreased hepatic glucose output. Possibly both mechanisms are present, but everyone agrees that the presence of a functioning pancreas is necessary. Because of this, the successful use of these drugs is limited to the milder category of diabetic patients whose onset of disease is after the age of forty and who

From the Joslin Clinic and the New England Deaconess Hospital, Boston, Massachusetts.

TABLE I. ORAL HYPOGLYCEMIC AGENTS

Agent	Carbutamide	Tolbutamide	Chlorpropamide	Phenethylformamidinyliminourea
Proprietary name	BZ55	Orinase	Diabinese	DBI
Type	Sulfonylureas			Biguanide
No. patients observed Joslin clinic	350	1400	75	260
Daily dose gms. (maintenance)	0.5-1.0	0.5-2.0	0.25-0.5	0.05-0.3
Mechanism of action	1. Stimulate insulin production or release? 2. Liver enzyme action reducing glucose released into blood stream?			1. Anaerobic glycolysis? 2. Action on Krebs cycle enzymes?
Side effects	+	Minimal	?	++
Toxic effects in patients	+	0	?	0
Lowers blood sugar	Effective in many middle aged and elderly patients with recent onset of diabetes			All types studied (when tolerated)
Not effective	Severe, unstable, juvenile-onset diabetes; history of coma; severe infection; fever; major surgery			1. Many juvenile and unstable diabetics need some insulin with DBI. 2. Patients unable to tolerate effective dose due to GI side effects
Present status	Withdrawn U.S.A. Still used abroad	Available on Prescription	Under Investigation	Continuing studies

take less than 40 (more often 20) units of insulin daily. Most series suggest that about 70 per cent of these selected patients will respond to sulfonylurea treatment with an adequately lowered blood sugar.

The use of these compounds is contra-indicated in juvenile-onset diabetes, diabetic patients with a severe, unstable condition and those with a history of previous coma or severe acidosis as well as in those persons suffering severe trauma, infection, gangrene or about to undergo major surgical procedures.

Carbutamide (BZ55).—This drug was the first of the sulfonylurea compounds tested in this country. It had an extensive clinical trial for several years and while it was indubitably hypoglycemic in selected patients, it was finally discontinued from general investigative use because of a number of toxic manifestations including allergic skin rashes, hemolytic changes and jaundice secondary to liver damage.[13] It should be noted, however, that this compound is still used in foreign countries without the side effects and evidences of toxicity reported here.

Tolbutamide (Orinase).—While not quite as hypoglycemically active as the previous compound, tolbutamide has undergone the most extensive investigation and has the widest usage of any oral hypoglycemic agent at this time. It has the added virtue of a low incidence (about 3 per cent) of side effects and to date, virtual freedom from severe toxic effects.

The daily maintenance dose averages 0.5-2.0 gm. and it seems to help regulate blood sugar levels quite adequately in the milder cases of diabetes. Thus far, in an impressive number of study cases, the evidences of toxicity found in carbutamide have not been reported. About 7 per cent of the patients receiving Orinase show "secondary" (after one month of treatment) failure.

Chlorpropamide (Diabinese).—This is the latest of the oral agents and has not been adequately studied at this time. It differs from the other two sulfonylureas in that (1) Diabinese has a chloride group at the para position of the benzene ring, (2) it is about two to three times more potent in lowering blood sugar levels, and (3) it is known to be more slowly excreted. At present, it is difficult to state whether Diabinese will have more or fewer side effects or toxicity than the other two drugs since it is still under investigation, but because of the qualities listed above, it merits scrupulous observation. No adequate reports have been published at this time.

The Biguanides

The present biguanides include DBI, the phenethyl; DBB, the normal-amyl; and DBTU, the isoamyl form of formamidinyliminourea. They are new synthetic preparations first described by Ungar *et al.*[14] and are unique in that they are

unrelated to the sulfonylureas, have shown blood-sugar-lowering properties in alloxanized as well as depancreatized animals and appear to be effective in many types of diabetes including some cases with juvenile onset. The exact pharmacologic action of DBI (also known as phenformin) is not completely known at this time, but available data suggest that increased anaerobic glycolysis is the most obvious mechanism. Since this compound has shown evidence of enhancing the uptake of glucose by muscle in the absence of insulin and yet has no properties of converting glucose to glycogen, it is probable that its hypoglycemic effectiveness in the absence of endogenous or exogenous insulin is greatly diminished. Our findings[6] suggest just this. Comparison of the clinical actions of the biguanide derivatives of formamidine[4] shows a remarkable similarity to those of Synthalin (guanidine-deca-methylene-guanidine) with the very important difference that exhaustive hematologic, liver and renal function as well as both acute and chronic pathologic studies have shown no evidence of toxicity in the doses used clinically.

Investigators[5,7,10-12] agree that blood sugar levels are reduced in many types of diabetes and as yet there has been no evidence of toxicity in patients receiving biguanides for periods as long as two years. In our own series[4] 88 per cent of a study group of 173 persons showed a blood-sugar-lowering effect while a total of 38 per cent could not tolerate the drug even though forty-three patients (26 per cent) showed some hypoglycemic effectiveness. This group was remarkable because every type of diabetic patient was studied, including fifty-three (30 per cent) who had diabetes of juvenile onset. Although gastrointestinal side effects, anorexia, nausea, vomiting and diarrhea, are frequent in doses close to the level of clinical effectiveness, they are rapidly reversed by decreasing the dose or discontinuing the drug.

Thus, in spite of obvious shortcomings, the biguanides have suggested a possible usefulness in an area which hitherto has not been approached by the oral hypoglycemic agents. More recent studies[6] of growth-onset diabetes show that while some of the earlier cases respond to biguanides alone, the most important contribution of these drugs may be in the treatment of these unstable and severe "reaction-prone" diabetics. Some of these patients are stabilized by the combination of the oral biguanide, when tolerated, and smaller injections of insulin.

Discussion

It is obviously impossible to compare compounds which are so diverse in their derivation, state of investigational status and the number of cases studied. These difficulties are multiplied because some reporters have neglected to mention proof of diabetic activity and the possible use of placebos.

None of these compounds is insulin and at this time the only insulin-like property claimed is the ability to lower blood sugar. While they can be called hypoglycemic agents, they cannot be properly termed antidiabetic substances. Diet is still an important adjunct and may be the deciding factor in the success or failure of these oral agents, even in those cases in which they are clearly effective. These drugs are also completely ineffective in controlling diabetic emergencies.

The two types of oral agents—sulfonylureas and biguanides—have different modes of action, indications and contraindications.

Of these, carbutamide is no longer a factor in this country, having been withdrawn from general investigation.

Tolbutamide is the most thoroughly tested of these drugs and the one now available for prescription use. Over 300,000 patients are said to have received this substance for varying periods. Generally speaking, it is safe to say that these represent the mildest, more recent-onset diabetic patients. While 60 to 70 per cent effectiveness is generally claimed for Orinase, many of these series are selected groups from which the severe, unstable and juvenile-onset cases have been eliminated. A more realistic over-all percentage of effectiveness might be 20 to 25 per cent. On the other hand, only a small incidence of side effects has been reported and the drug has been singularly free of any severe toxic manifestations to date. While the debate about the ultimate value of tolbutamide continues, there can be no doubt that when indications are scrupulously followed, many of these patients having milder manifestations appear to benefit from a smoother diabetic course, freedom from daily insulin injections and fewer subsequent insulin reactions.

At this time, chlorpropamide has not been adequately investigated. The limitations and indications are the same as for tolbutamide. The greater hypoglycemic effectiveness (two to three times more potent than tolbutamide) and slower rate of excretion suggest that great caution must be used

in evaluating this drug, which is still under investigation. While the anticipated amount of toxicity is a moot question at this time, it appears doubtful that the therapeutic spectra can be greatly increased by Diabinese, although it may cover the same area as Orinase with smaller doses indicated.

The biguanides, DBI, DBB and DBTU, have a much shorter clinical trial period than Orinase and, except for side effects (which have not yet been related to toxicity), seem to be effective in a fairly large area of the diabetic universe because of their property of lowering blood sugar in many diabetic patients regardless of the degree of severity. When tolerated, phenformin and its analogues are effective in mild and some moderate cases of diabetes. In the severest forms of difficult diabetes these compounds seem either to stabilize the diabetes or to enhance or augment the insulin dose, permitting adequate regulation with much smaller doses and subsequent freedom from violent reactions.

However, since many questions yet remain unanswered and since these drugs are on clinical trial investigative status, it is not possible to assay their ultimate value.

Tolbutamide, with its freedom from side effects, seems preferable to DBI in milder cases of diabetes, but when side effects are minimal or absent, allowing the biguanides to be tolerated in adequate dosage, DBI and DBB are useful adjuncts in the total therapy of severe, unstable and juvenile-onset diabetes. The latter individuals represent a relatively small but very important portion of the diabetic population.

No one can envision the ultimate place of these or future oral hypoglycemic agents, but it is probable that in one form or another the era of oral diabetic treatment is here to stay, at least as an adjunct. While these present preparations pose no real threat to insulin, they may in some cases replace and sometimes modify or even enhance its use. Further studies and future oral preparations may provide more effective treatment for a greater number of diabetic patients. Already diabetes research has been stimulated and the interest of physicians and patients rekindled.

Summary

1. A review of earlier oral hypoglycemic substances is presented.

2. Present-day preparations including the sulfonylureas, carbutamide (BZ55), tolbutamide (Orinase) and chlorpropamide (Diabinese), and the biguanide, phenethylformamidinyliminourea (DBI), are discussed and compared.

3. The indications and the limitations of these compounds are evaluated according to currently available knowledge.

4. These preparations must be classified as hypoglycemic rather than anti-diabetic agents at this time.

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Spontaneous Hypoglycemia: Its Relationship to Diabetes Mellitus

By Laurence F. Segar, M.D.

Detroit, Michigan

THE NORMAL human organism has an extremely efficient system of checks and balances to maintain its blood sugar level within limits compatible with good health. At any given time the amount of glucose circulating in the blood represents the result of the glucose entering the blood stream and that leaving it.

In the absorptive state almost all of the glucose is provided from ingested foods, its level being roughly dependent upon the rate of absorption from the gastrointestinal tract. In the fasting state, however, practically all glucose in the blood comes from the liver due to glycogenolysis of preformed glycogen, and to gluconeogensis from protein and fat, carbohydrate precursors. Also lactic acid released from muscle glycogen stores is resynthesized to glycogen in the liver for utilization as originally described by Cori and Cori.[3]

Glucose is removed from the blood in three ways: by storage as glycogen in the liver and muscles amounting to about 3 per cent, by oxidation to carbon dioxide and water, and by conversion to fat.[13] During fasting much of the glucose is oxidized while in the presence of excess glucose, at times of feeding, a large percentage is synthesized to fat.

In addition to the metabolic phase of control of blood glucose, there are profound and complicated endocrine activities which serve to increase or decrease the blood sugar. The scope of this presentation does not allow a detailed discussion of these factors which have been clearly described by Conn.[1] Suffice it to mention that insulin is the single hormone that decreases blood glucose, while secretions of the anterior pituitary, adrenal cortex, adrenal medulla and thyroid all may play some role in increasing blood sugar.

Good health and a sense of well-being are dependent upon maintaining the fasting blood sugar level within 70-100 mg. per cent as determined by the Somogyi Nelson method. Blood sugars over this amount are evidence in most instances of diabetes mellitus with its serious disturbance of body economy and premature degenerative manifestations.

Hypoglycemia, on the other hand, has many causes which will be enumerated. A discussion of those which are related to diabetes will be undertaken. Conn and Seltzer[2] have written on the etiologic factors producing spontaneous hypoglycemia, dividing them into three main categories: organic, functional, and factitious. The first includes tumors of the pancreatic islet cells either malignant or benign, hepatic disease, hypofunction of pituitary, adrenal and thyroid glands, and lesions of the hypothalamus or brain stem. Factitious hypoglycemia is the term given to purposeful administrations of overdoses of exogenous insulin.

Functional hypoglycemia is by far the commonest of the causes of spontaneous hypoglycemia accounting for about 70 per cent of the cases. This condition is also known as "nervous hypoglycemia" or "reactive hypoglycemia." The etiology of this syndrome is not completely understood but there is general agreement that it represents an excessive response of healthy islet tissue to a normal stimulus for insulin secretion. This response is apparently mediated by a disturbance in the autonomic nervous system, most probably the vagus nerve. Thus a normal postprandial rise in blood sugar elicits an excessive secretion of insulin. In turn, this produces the usual symptoms of hypoglycemia consisting of pallor, sweating, nervousness, tremor and palpitation. Loss of consciousness or convulsions never occur in functional hypoglycemia. Characteristic of this entity also is the fact that the symptoms occur two to four hours after meals and never after a long fast. A careful history will reveal the recurring periodicity of these episodes and their relation to the intake of food. Very frequently those patients manifesting this clinical picture have so-called vagototnic personalities. They are apt to be intensely aggressive, with considerable anxiety. Often they manifest vasomotor instability and gastric

hyperacidity. The severity of the symptoms will vary with the amount of pressure the patient is under. The disease is never progressive.

According to the technique of Conn and Seltzer[2] the glucose tolerance test, done after suitable dietary preparation with three days of high carbohydrate intake, is pathognomonic. The fasting blood sugar and absorptive rise are normal with a rapid and excessive secondary hypoglycemic phase to 40 mg. per cent or lower in the second to the fourth hour. The symptoms occur characteristically at the time the hypoglycemia is present.

It was found by Seltzer, Fajans and Conn[12] that patients presenting the symptoms of functional hypoglycemia were often suffering from mild and unrecognized diabetes. In other words, the symptoms of hypoglycemia were often the first manifestation of what was destined to become actual hyperglycemia. This group of patients is differentiated from the true functional hypoglycemia by glucose tolerance tests which fulfill diabetic criteria.

Seltzer et al.[12] set down the following criteria for differential diagnosis.

Functional Hypoglycemia	*Mild Diabetes with Secondary Hypoglycemia*
1. Normal fasting blood sugar level.	1. Normal or slightly elevated fasting blood sugar level.
2. Peak venous blood sugar not exceeding 140 mg. per cent.	2. Peak venous blood sugar exceeding 160 mg. per cent.
3. Return of blood sugar to normal fasting range by second hour.	3. Plateau type curve with persistence of hyperglycemia beyond the second hour.
4. Fall to hypoglycemic levels usually with symptoms, between the second and fourth hours and followed by compensatory rise of blood sugar.	4. Fall to hypoglycemic levels usually with symptoms between the third and fifth hours followed by compensatory rise of blood sugar.

Thus it is seen that an appreciable group of patients presenting symptoms of functional hypoglycemia are in reality mild and presumably early diabetics. This is of significance, as finding these cases will result in the early institution of diabetic management. Such care will materially improve their long-term prognosis. In order to clarify this it must be realized that patients manifesting symptoms of spontaneous hypoglycemia with the characteristic glucose tolerance curve of the functional group are not diabetic, nor do they have any unusual predisposition to become diabetic in later years.

A second and, numerically, by far the most important relationship between hypoglycemia and diabetes mellitus is the fall in blood sugar to levels below normal after the injection of insulin for the purpose of therapy. A number of situations occur in which an injection of insulin may lower the blood sugar to a level which will produce symptoms. The commonest error, of course, is due to the use of U 80 insulin in a syringe which is calibrated for U 40, thus getting twice the prescribed dose. Other mistakes occur in preparing insulin for injection due to poor eyesight, or sometimes lack of attention on the part of the patient. The clinical manifestations of too much insulin vary with the rate of fall of the blood sugar. The reactions from regular insulin which acts for a short period, and more rapidly, differ considerably from the symptoms following injection of too much intermediate, or long-acting insulin. In the first instance, the patient presents the clinical picture described earlier for functional hypoglycemia. These symptoms of sweating, pallor, weakness, nervousness and tremor are due to the effect of excess epinephrine secreted by the adrenal medulla.[11] This is an attempt to increase the blood sugar level by inducing glycogenolysis; and is one of the homeostatic mechanisms by which normoglycemyia is maintained. The symptoms can be promptly abolished by administration of carbohydrate either parenterally or by mouth.[7]

Reactions occasioned by longer-acting insulins often present a different group of symptoms including headache, nausea, and vomiting, repetitive speech, and numbness in various parts of the body. If more prolonged and severe, there may be loss of consciousness, convulsions and death. It is of particular importance to differentiate this type of reaction from diabetic acidosis, which it often simulates. Thus in the presence of known diabetes, headache and vomiting due to hypoglycemia may be treated by additional insulin. This serious error can be avoided by getting a urine specimen (by catheter, if necessary) before treatment is instituted. On clinical observation it will also be noted that with acidosis the breathing is apt to be of the Kusmall type rather than the shallow respirations of hypoglycemia. Further, the history

of onset of manifestations is usually slowly progressive over several days with acidosis, while hypoglycemia presents a relatively sudden onset of signs and symptoms.

It is of importance to note that administration of glucose in the presence of a reaction due to long-acting insulin may help temporarily only to have the patient relapse into the same symptoms after a relatively short while.[8] The temporary effect of therapy is due to the fact that this type of insulin is slowly released from its site of injection over a relatively long period of time so that its effect persists.

Another factor operative in producing the foregoing clinical picture is neglecting to eat on time. It is of the utmost importance that a diabetic patient on insulin should follow a regular eating schedule. Skipping or delaying a meal (and this includes the usually prescribed bedtime snack) may be sufficient to initiate reaction.

A potent force responsible for hypoglycemia is exercise. In the presence of insulin, unusual physical effort increases the rate and efficiency of the utilization of carbohydrates by the tissues. Reactions often ensue. Practically, the application of this is seen in the reduction of insulin dosage when patients are discharged from the hospital where they had been well controlled. Any occasion where athletics, dancing, unusual amount of housework, or other physical activities are engaged in calls for a reduction of insulin in most diabetic patients, to avoid hypoglycemia. Many top-flight athletes who have diabetes take additional carbohydrate in considerable amounts during the course of their competitive efforts in order to prevent symptoms from a low glucose level in the blood.

McKean[9] has described an interesting clinical entity which he calls paradoxical hyperglycemia. Patients presenting this syndrome have wide swings from hypoglycemia to hyperglycemia in the course of a twenty-four hour period. They are among the most difficult people to control. Success in management of these diabetic persons is not achieved unless the possibility of paradoxical hyperglycemia is considered and proper therapy instituted. It is felt that such patients have a period of hyperglycemia which is treated by insulin prescribed by their physician. Coincident with (or perhaps somewhat before) the giving of insulin, the high blood sugar stimulates the beta cells of the pancreatic islets to produce insulin to combat hyperglycemia. The additive effect of endogenous and exogenous insulins results in a prompt fall in the blood glucose to hypoglycemic levels. The symptoms of hypoglycemia are treated by additional carbohydrate producing a rise in blood sugar completing the cycle which is then repeated. Treatment consists of reducing the amount of insulin given until hypoglycemia with its rebound phenomenon does not obtain. This provides the paradox of reducing blood sugar by decreasing the dose of insulin. Obviously patients in this category must have enough functioning pancreatic islet tissue to respond to the stimulus of hyperglycemia.

The effects of repeated hypoglycemia of major intensity, particularly if prolonged unduly, may have serious permanent effects on the central nervous system. Fabrykant,[5] Perkin[4] and others have reported cases with convulsive disorders and cerebral deterioration as the result of frequent hypoglycemic episodes. It is of interest to note that there is a strong family history of non-diabetic convulsive disease among diabetic patients who suffer from convulsive type of reactions. The brain depends entirely on carbohydrates for nourishment, using neither fat nor protein. Thus an adequate supply of glucose in the blood is mandatory for adequate cerebral function. In the presence of hypoglycemia, insufficient nutrition of the central nervous system occurs, which if prolonged enough, results in irreversible damage. The brain requires no insulin to utilize carbohydrate.

The foregoing has been an attempt to explain the common mechanisms of spontaneous hypoglycemia with particular reference to the relationship of this condition and its symptoms to diabetes mellitus. It is felt that an understanding of this relationship is significant and can result in more prompt and efficient management of both latent and fully developed clinical diabetes.

Summary

1. A list of conditions producing spontaneous hypoglycemia is noted with a description of the clinical symptomatology.

2. The relationship of spontaneous hypoglycemia and early diabetes mellitus is discussed.

3. Factors associated with insulin reactions in diabetic patients are described.

4. A brief discussion of paradoxical hyperglycemia is given.

5. Attention is called to the dangers of central

(Continued on Page 1432)

Headaches of Vascular Origin

By Fred Wittich, M.D.
Minneapolis, Minnesota

MOENCH[4] in the preface of the second edition of his classical book "Headache" says: "The person with a headache often finds himself a medical orphan. He is fortunate indeed if the headache is transient, for otherwise he may find himself on an excursion to the ophthalmologist, otolaryngologist, neurologist, dentist, psychiatrist, osteopath and chiropractor. Thereupon he is x-rayed, massaged, analyzed, fitted with glasses, relieved of his turbinates and teeth and too often emerges with his headache intact."

The attitude of other specialists is well illustrated in the introduction of Graham's recent authoritative book,[2] "Treatment of Migraine" when quoting the Hindoo fable of the Blind Man of Indostan by John Godfrey Saxe. Graham's graphic illustration of the "migraine elephant" being examined by the blind men representing the various specialists is classical.

THE BLIND MEN AND THE ELEPHANT
A Hindoo Fable

It was six men of Indostan
 To learning much inclined,
Who went to see the Elephant
 (Though all of them were blind),
That each by observation
 Might satisfy his mind.

The FIRST approached the Elephant,
 And happening to fall
Against his broad and sturdy side,
 At once began to bawl:
"God bless me! but the Elephant
 Is very like a wall!"

The SECOND, feeling of the tusk,
 Cried, "Ho! what have we here
So very round and smooth and sharp?
 to me 'tis mighty clear
This wonder of an Elephant
 Is very like a spear!"

The THIRD approached the animal,
 And happening to take
The squirming trunk within his hands,
 Thus boldly up and spake:
"I see," quoth he, "the Elephant
 Is very like a snake!"

The FOURTH reached out an eager hand,
 And felt about the knee.
"What most this wondrous beast is like
 Is mighty plain," quoth he;
'Tis clear enough the Elephant
 Is very like a tree!"

The FIFTH, who chanced to touch the ear,
 Said: "E'en the blindest man
Can tell what this resembles most;
 Deny the fact who can,
The marvel of an Elephant
 Is very like a fan!"

THE SIXTH no sooner had begun
 About the beast to grope,
Than seizing on the swinging tail
 That fell within his scope,
"I see," quoth he, "the Elephant
 Is very like a rope"

And so these men of Indostan
 Disputed loud and long,
Each in his own opinion
 Exceeding stiff and strong,
Though each was partly in the right,
 And all were in the wrong!

—John Godfrey Saxe.

Incidence

A conservative estimate of the people in the United States alone who are incapacitated periodically by migraine headaches is five million. It is one of the most common types of headaches of vascular origin seen in medicine today. The migraine sufferer has many symptoms, both gastrointestinal and systemic.

Blumenthal and Fuchs,[1] of the Headache Clinic of George Washington Hospital, Washington, D. C., analyzed 1,648 cases observed for more than six months at their headache clinic. They state that despite the advances of continued research and investigation, it has been estimated that more than fifteen million individuals require treatment for headaches each year. In certain industries, headaches rank second only to respiratory diseases as the leading cause of absenteeism.

Of the vascular headaches, they list in their series of 1,648 patients eighty patients with histamine headaches, 600 with migraine, twenty-five with hypertensive headaches and three with temporal arteritis or a total of 708 patients (nearly 43 per cent). Seven hundred had tension headaches (42.8 per cent of the series) while the

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Dr. Wittich is President Emeritus, American College of Allergists; Editor, *Review of Allergy and Applied Immunology.*

total number of non-vascular headaches of all causes was less than 15 per cent.

Migraine is apt to occur more frequently in women since it is often associated with menstruation. More than half of the cases of migraine start between twenty and thirty years of age—rarely in childhood or the seventh decade. Occupation and social position have an important influence. It affects country people and manual workers less than mental workers and city dwellers. Physical or psychic trauma may initiate an attack.

There is a strong hereditary history. About 50 per cent of the children of migrainous parents develop migraine, 80 per cent from the maternal and 20 per cent from the paternal side. The history of allergy in the family apparently increases the incidence of migraine. Studies on the personality of migraine patients indicate that inheritance is a Mendelian recessive factor.

Today the physician is primarily interested in the prevention, causes, and relief of symptoms of vascular headaches. If he is not, the patient will soon seek one who is. The author's personal experience with migraine and allergy for many years has been revealing. The high incidence of eosinophilia by other observers during the attacks was confirmed, and suggested an allergic origin of the headaches. Individual food trials with onions, celery, carrots, corn and chicken proved that foods were a primary factor.

Avoidance of these foods usually gave relief. The composition of mixtures today is so complex that occasionally these foods were unavoidably eaten, with a recurrence of the migraine. Food allergies are the most common causes of these headaches, although inhalants, odors, and contact allergies are occasional or contributory factors.

The accepted classification of vascular headaches may be illustrated by the following outline:

Headaches

I. Non-vascular
 (a) Sinusitis
 (b) Neuralgic
 (c) Tumors

II. Vascular
 (a) Migraine
 Ophthalmic
 (b) Migraine variants
 Ophthalmoplegic
 (c) Tension headache
 Abdominal
 (d) Temporal arteritis
 Histaminic cephalalgia

Present concept of vascular headache.—The amplitude of pulsation of the affected cranial vessels increases with their dilatation, with pain increasing with their stretching. Recession of pain occurs as the dilatation decreases. This generally accepted knowledge furnishes the basis of a rational approach to treatment. Such a working knowledge of the common fundamental mechanism of vascular headache is essential, and until disproved, serves to avoid confusion. It must be understood that physiologic processes which "trigger" the mechanism vary with each patient.

The symptoms and the incidence of migraine fluctuate with the patient's life cycle of changing environment, of security or insecurity, weather changes, sickness, worries or stress from school examinations, vacations, poor economic conditions, comfort or discomfort, economic factors, impending wars and many other factors.

The statement frequently made, and verified by statistics, that 24 per cent of migraine patients respond to placebos or psychogenic influences such as a doctor-patient relationship, makes one wonder if these patients are not of the psychoneurotic type who could do as well with Christian Science. True migraine causes severe headache frequently accompanied by vomiting and prostration. It is doubtful whether suggestion or even hypnosis could control these symptoms in approximately one-fourth of the patients with true migraine.

Graham points out that there has been a great tendency to report conclusive results where several forms of treatment are used simultaneously while a definite opinion is drawn only from the use of one. He stresses the importance of making accurately recorded observations over a sufficient period of time before reporting the results, and thinks the "double blind" technique, whereby both physician and patient are unaware of the test preparation, should be used.

The characteristic symptoms of so-called "classic" migraine is the sudden onset of visual aura or scotoma which at times are accompanied by other neurologic phenomena, such as vertigo, lack of the power of concentration, poor memory and judgment, inability to comprehend the significance of what is seen or heard, and numbness.

Classic migraine is also characterized by its periodicity, cephalalgia, gastrointestinal dysfunction, cortical disturbance, family history of migraine and its relief by drugs with a vasoconstric-

tor action on the branches of the external carotid artery such as Wigraine® suppositories.*

During an attack of migraine there may be a rapid loss of weight of as much as three or four pounds as a result of loss of fluid due to electrolyte imbalance.

These patients with "classic" migraine as described with visual scotoma are considerably fewer in number than those who have frequent "sick headaches" which are vascular in origin.

Treatment

The prophylactic treatment of migraine where allergy is suspected consists of a careful allergy history. An elimination diet should be prescribed, which usually necessitates a vitamin and sometimes a mineral supplement.

Treatment of an acute attack consists in prescribing vasoconstrictors of the ergot group, preferably one with no habit-forming drug like the barbiturates. This rectal suppository in an especially blended bland base of hydrogenated vegetable oils has been found the most effective in aborting migraine. The suppositories are highly resistant to temperature changes, and keep fresh when wrapped in foil. One suppository used at the first sign of a migraine attack followed by one every twenty to thirty minutes to a maximum of six per attack has not had any untoward reactions in our series of patients and has resulted in very quick relief. In many cases, just one suppository aborted an attack.

This indication decreases the amplitude of pulsation of the temporal artery within a few minutes during a migraine attack. This is immediately followed by relief of pain.

Case Histories

Migraine aggravated by allergy, premenstrual tension and dysmenorrhea is illustrated by the history in Case 1.

Case 1.—A married woman, aged forty-five, with two teenage children, who did her own housework, was referred by her family physician as "probably" having an "allergy of some sort." She noticed that, regardless of the season of the year, whenever she swept or dusted, her nose became blocked, accompanied by sneezing and watering of the eyes. A food allergy was also suggested, since the patient had the same nasal symptoms after certain foods, and an individual food trial revealed that she was definitely sensitive to milk and pork. These foods were entirely eliminated from her diet and she was given a course of subcutaneous injections of aqueous protein extract of house-dust and molds. She became free from her typical migraine headaches, except for about a week before her menstruation, when, invariably she would have a return of the migraine attacks so severe that at times she was hospitalized because of the extreme nausea and vomiting. Undoubtedly, premenstrual tension acted as a trigger mechanism, due probably to progesterone (ethisterone) deficiency. Along with avoidance of offending foods and hyposensitization measures, she was given two tablets of a progesterone combination daily a week before the expected menstrual period, with the result that her headaches were almost completely eliminated. An oral Wigraine tablet controlled these occasional headaches.

Case 2.—A thirty-nine-year-old man, holding a responsible position in a grocery store and with an antecedent history of allergy, suffered so many attacks of migraine that his position was in jeopardy, not only from loss of time, but also because of his irritable manner with customers. After a careful individual food trial, it was found that wheat and peas were the clinical offenders. It was easy to eliminate peas from the diet, but almost impossible to eliminate wheat in some form. He did not realize the serious significance of wheat flour nor the possibility that certain sausages contain wheat and other allergenic substances, with the result that he suffered recurrent attacks of migraine. He had previously taken ergotamine tartrate and caffeine with relief from the attacks, but with a marked residual myalgia of the neck muscles and fatigue.

Antihistamines gave no relief. A Wigraine suppository gave him quicker and more complete relief without residual symptoms.

Allergic headaches are also vascular in origin and are characterized by the following:

1. Family history of allergy.
2. Other allergic manifestations may precede onset.
3. Association with other manifestations of allergy, such as urticaria, angio-edema, gastrointestinal allergy, hay fever, and inhalant allergy of the respiratory type.
4. May be associated with cerebral allergy, personality changes, mental confusion, and disorientation.
5. Prodromal symptoms: gastrointestinal upset, vomiting, polydypsia, edema of feet, hands, and face, marked gain in weight, possible urticaria in first twelve to twenty-four hours. Visual prodromata not common.
6. Headache usually generalized, with sense of pressure, dizziness, and mental confusion (cerebral edema).

*Erogtamine tartrate 1.0 mg., caffeine 100.0 mg., belladonna alkaloids (levorotatory) 0.1 mg., and acetophenetidin 130.0 mg. (Organon).

7. Headache of severe pressure, throbbing type.

8. Attack lasts about twelve to twenty-four hours. Complete cycle from onset to termination —forty-eight hours.

9. Terminal phase of attack characterized by polyuria, loss of weight (edema), and return to normal.

10. May be prevented by adequate dose of an antihistamine preceding anticipated exposure to the allergen. Relieved by vasoconstrictors, such as epinephrine or ergotamine tartrate (parenterally), Wigraine tablets orally, and by suppository.

11. Entire syndrome may be reproduced repeatedly by ingestion of causative food or exposure to other offending agents.

Migraine equivalents or variants are: (1) Travel sickness, (2) Cyclic vomiting, (3) Acidosis attacks and recurrent abdominal pain, (4) Paroxysmal cardiac arrhythmia, (5) Precordial pain—rarely fever, (6) Substitute episodes occuring early in life, subsequently developing into migraine, and (7) Responds to ergotamine tartrate (parenterally) and Wigraine orally.

Migrainoid Disorders.—There still seems some confusion by some of what is considered by most authorities as migrainoid disorders so that they are enumerated here: (1) Atypical facial neuralgia, (2) Horton's Syndrome,[3] (3) Certain headaches occurring in hypertensive patients, as well as those presenting the features of "tension headache," (4) The vascular element responds to ergotamine tartrate (parenterally) and Wigraine (orally) but oral tablets do not give the rapid complete relief that the rectal suppositories do. Other symptoms are treated accordingly.

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SPONTANEOUS HYPOGLYCEMIA

(Continued from Page 1428)

nervous system damage from repeated and prolonged insulin reactions.

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10 Witherell Street
Detroit 26, Michigan

Current Concepts in the Control of Urinary Tract Infections

By Ian M. Thompson, M.D.

Ann Arbor, Michigan

RECENT DECADES have seen a culmination of man's fight against infection in the discovery and widespread utilization of antibacterial and antibiotic agents. The beginnings of the extirpation of infectious disease have been made, and perhaps in no field of medicine has this been so deeply appreciated as it has in the urologic. It is equally gratifying to note the general awareness that sound surgical principles cannot be sacrificed to an over-weaning worship of antibacterial medications. In this respect good drainage in the urinary tract remains as important as in the past, and the antibiotics no matter how specific or potent are of little avail in the presence of an impediment to urinary outflow.

Topographically, the preponderance of the urinary tract is quite simply a series of conduits for the disposal of fluid. The danger of infectional involvement of any portion of this conduit stems from its effect on renal tissue and upon the wonders of glomerular and tubular control of salt and water metabolism. For this reason, infection in any portion of the urinary tract merits prompt attention to prevent renal involvement or minimize its effect should it occur. At the present time the dynamics of urine transport are better understood and there has developed a more rational approach for the exclusion of obstruction, neoplastic, or calcareous precursory instigators of infection, with a resultant increase in eradication rather than amelioration of such inflammations.

For convenient consideration, urinary infections are separable into the primarily renal and those confined for the moment at least to the lower urinary tract; often coincident and frequently mutually derivative, they can exist in pure form.

Infection in the urine cannot of itself be considered a pathologic entity but rather as a manifestation of a disease process resulting in the appearance of bacteria in the urine. For many years any and all urinary symptoms were ascribed to kidney disease. We are more familiar now with the fact that a lower urinary tract infection may not denote renal involvement. Less well publicized however is the finding that lower urinary tract symptoms may derive from a renal focus which may offer no objective evidence of its presence: A frequent occurrence is seen in tuberculosis.

The process of localization of the site of emanation of the bacteria and pus found in a urinary infection can only develop from a logical sequence of investigation and begins with the cornerstone of all diagnosis, the astringently complete history. The gender and age of the patient will immediately suggest certain lines of interrogation directed primarily toward the specific entities most likely to occur at that age and respective gender.

Lower urinary tract or vesical outlet obstruction will often be productive of a change in micturitive pattern or of a persistently abnormal one should the lesion be congenital or of long standing. Yet a child may never have had the opportunity to distinguish between a normal and an abnormal urinary stream and thus the appearance of infection assumes greater importance. Here the protuberant abdomen so casually mentioned may mask a disastrous chronic distention of the bladder. Similarly, prostatism in the elderly male may be insidious symptomatically until infection suggests evaluation and only then will the change in the urinary pattern become discernible. The history may unearth a diabetic trait placing recurrent urinary infection in a more comprehensible light or chronic infection in several members of the same family can lead to the suspicion of polycystic renal disease. The gender of the patient may suggest a relationship of the menses to periodic reinfections and unearth a pelvic inflammatory focus responsible for the urinary tract changes. Conversely it may only be by careful physical evaluation that a diverticulum, prostatic abscess, renal tumor or hydronephrosis is discovered.

The obvious prerequisite in the proper management of a urinary tract infection is study of

From the Department of Surgery, Division of Urology, University of Michigan School of Medicine, Ann Arbor, Michigan.

the urine itself. All too frequently when symptoms suggestive of infection are noted, recourse is made to a variety of therapeutic agents without an examination of the urine. The irritative bladder symptoms consequent to vesical neck obstruction or neurogenic dysfunction may conspicuously exist without infection, and with the employment of one antibacterial agent after another, time and expense are sacrificed to careless expediency.

It has been insufficiently emphasized that the urine may contain cells without bacteria, and almost with equal frequency bacteria without cells. Periodically, debate arises as to the comparative efficacy of the stained smear of the urinary sediment in relation to urine culture studies. Our reliance is often more implicit on the results of the stained smear than on culture reports. If bacteria are not seen on smear we feel that a culture would be superfluous. Similarly, if one type of organism is seen on the stained slide and a different type is reported by culture we rely on the findings of the smear. There is no intention here to deprecate the necessity for urine culture and sensitivity studies. We feel that urine culture should be subscribed to subsequent to study of the fresh sediment and should the urgency or chronicity of clinical symptoms point to its necessity. Bacterial sensitivity analysis should always accompany a urine culture since one culture of an organism may differ in drug susceptibility from another culture of the same organism.

A more cogent argument is the scrupulous adherence to examination for infection of catheterized urine specimens solely, in the female, since bacteria are normal denizens of voided urine in women. Many reputed urinary tract infections are derived from such extraneous contaminating sources.

As to when in the course of a urinary infection a complete urologic evaluation should be undertaken the physician is of course led by his experience and instinct. Certain guideposts however can be helpful. Examination should be done when gross or microscopic blood appears in the urine. The infection itself may often be the instigator, but this cardinal sign of danger—hematuria—should never go unexplained. We feel very strongly that urinary infections in children are statistically of sufficient gravity as to warrant thorough study and invariably include cystography and cystoscopy. It may appear precipitous to completely investigate every infection yet it is insistent in view of the consideration that such an infection may represent the solitary indication of marked abnormality or severe obstructive uropathy. It is most fortuitous when a urinary infection brings to light the incipient stages of an abnormality which could inexorably and silently lead to irreversible renal damage, and it is preferable by far to perform a fruitless investigation than to overlook the one child who might otherwise suffer the crippling effects of a silent obstructive process. Renal reserve is never expendable and should be more zealously guarded in the young who have all the wonders and accomplishments of the future ahead of them.

In adults, investigation may be considered in women who repeatedly suffer attacks of cystitis, particularly should periodic pyelonephritis occur.

It is well to consider cystitis in the male as of potentially serious import. The facile accessibility of infection to the bladder in women, purportedly based upon the vulnerability of the short female urethra is antithetically mitigative of consideration in men owing to the relatively greath length of the male urethra. Without evidence of prior or concurrent urethral infection any cystitis or pyelonephritis in men should be completely investigated, since obstruction, tumor, or stone may not be productive of the customary pathognomonic signs. In the elderly male, infection is frequently indicative of bladder outlet obstruction and such a source must always be considered.

Investigation of an infection can begin with the excretory urogram which if properly performed can often produce complete architectural delineation. In addition to the topographic information provided by the intravenous urogram, it serves additionally as a rough measurement of renal function. The value of delayed excretory films has been insufficiently publicized. The precise area and etiology of an obstruction may often be pinpointed in the gradual descent of the medium to the site of involvement and films taken as much as six or eight hours after injection may prove invaluable.

In the presence of hematuria it is often wiser to subject the patient immediately to cystoscopy and retrograde study since the site of the bleeding may often be more readily detected and analysis of radiographic aberration more clearly interpreted. Retrograde studies are always carried out whenever excretory urograms are insufficiently

diagnostic. At cystoscopy inspection of the urethra and bladder may identify the factor responsible for the infection.

Measurement of urinary residuum is essential in any study of this nature, and is indicative of infra-vesical obstruction (anatomic or neurogenic) should a significant amount be discovered.

Cystography has become a routine component of the urologic evaluation following the acceptance of its importance in ascertaining the presence of ureteral reflux. Reflux is definite indication of lower urinary tract obstruction. Urethrography has recently been a more frequently addended procedure since its value has been demonstrable in the identification of strictures, valves and urethral diverticula often promulgative of urinary infection.

In certain infrequent instances, the performance of aortography and presacral CO_2 insufflations may be necessitated for clarification of infectional etiology. Fairly recently, the percutaneous antegrade urogram has seen increasing acceptance should ureteral catheterization be impossible subsequent to nonvisualization by excretory urography. The salvageability of an obstructed kidney may thus be determined when other preoperative estimates have proven inconclusive. Renal biopsy has been both helpful and safe in the tissue study of infectious processes, and may swiftly solve a most difficult problem in the differentiation of pyelonephritis from other nephritides.

Attention should be drawn to a familiar entity in order to encourage a greater appreciation of its inherent treacherous subtlety. Duplication of some portion of the collecting system is the commonest genitourinary anomaly—so common that it is accepted perhaps too prosaically. Ectopic openings of the ureters are surprisingly frequent when duplication occurs and often the extopic ureter situated more vulnerably than its mates, will become diseased. One may be unaware of the presence of such a diseased ureter should it fail to excrete opaque medium and thus it is necessary to institute a search for such a nonvisualized segment in any instance of reported unilateral duplication; its discovery may afford a prompt solution to the trying problem of chronic infection in the presence of ostensibly normal pyelograms. Mention should be made that treachery lurks equally in urinary tract tuberculosis; such a diagnosis must constantly be kept in mind in any intractable infection.

The successful treatment of a urinary tract infection is often only a derivative of the delineation of the many etiologic or adjunctively complicative facets responsible for the presence of bacteria in the urine. Little resolution of an inflammatory process may be expected from an antibiotic of choice in the continuing presence of pathologic precursory factors.

In dealing with acute pyelonephritic attacks, the first thought must be for the immediate preservation of renal parenchyme and thus a vigorous onslaught directed at the bacterial invaders. In the presence of an acute episode a culture should be secured concomittant with identification of the bacterial type by stained smear and interval medication given while awaiting sensitivity studies. The selection of initial medication may best be governed by statistical analysis of the results of sensitivity studies. The preponderant number of organisms responsible for urinary tract infections derive from a relatively small group of Gram-negative rods: Escherichia coli, Aerobacter aerogenes, Proteus vulgaris, and Pseudomonas aeruginosa. Staphylococcal and streptococcal infections are less common but often more persistent. A résumé of a great many culture and sensitivity studies representing numerous individual infections has afforded us a relatively simple frame of reference for the selection of a medication. In the presence of E. Coli the two most effective antibiotics are first, Chloromycetin and second, Furadantin. For Aerobacter—first, Chloromycetin and secondly, Terramycin. For Proteus—first, Chloromycetin and second, Achromycin; and for Pseudomonas—first, Terramycin and secondly, Achromycin. It would thus appear that a judicious initial choice of medication prior to culture and sensitivity reports would be Chloromycetin. Subsequent to sensitivity determinations a more appropriate antibiotic or a combination of the most effective medications may be substituted if the clinical course seems to require it. It has become apparent that Neomycin and Polymyxin-B —antibiotics which have seen progressively infrequent clinical use in urinary infections—have been injudiciously relegated to exclusively topical employment owing to a general uncertainty as to their parenteral toxicity. For Aerobacter infection there is no antibiotic which approaches the efficiency of Neomycin and for Pseudomonas, Polymyxin-B is clearly the most effective agent. Knowledge of the similar renal and neurologic toxicities

of these two medications must be thoroughly understood and observations carefully made for symptoms and signs referable thereto, yet their employment should not be proscribed solely on this basis. Administered in proper dosage and under supervision, they are clearly indicated in the severe and otherwise unresponsive infections.

For a variety of reasons the frequently employed combination of penicillin and streptomycin is an unlikely choice in the presence of a bacilluria. Streptomycin ranks exceptionally low statistically relative to bacterial sensitivity, and penicillin has little effect on the majority of bacilli. The masking of a tuberculous etiology may be accomplished in the routine use of streptomycin, and the frequency of severe allergic reactions to penicillin is an adjuvant hazard of this joint therapy. Most coccal invaders will be susceptible to either the broad spectrum antibiotics or agents such as erythromycin or penicillin. Yet Neomycin may be needed in a very severe coccal involvement. In the extremely acute infections, and particularly when nausea, vomiting or intestinal atony are concomitant it may be advisable to resort immediately to the intravenous or intramuscular preparations. Recently the preparation of Furadantin for intravenous use has seemingly been efficacious in many mixed infections as well as in those where the bacteria are primarily sensitive to it. Intravenous Terramycin and the intramuscular forms of Achromycin and Chloromycetin offer a wide spectrum of action in selected instances. It is most infrequent that we rely upon the sulfonamides in the treatment of acute urinary infections.

Should pyelonephritis continue with undiminished severity in the face of seemingly adequate and appropriate medication, the presence of an unsuspected obstruction must be considered and prompt investigation carried out. Renal cortical abscess or suppurative pyelonephritis may be etiologic should a deleterious clinical course persist, and occasionally surgical exposure or nephrectomy is necessitated. Fortunately such complications are increasingly rare in the light of present-day diagnosis and treatment.

One significant factor needs re-emphasis: All too frequently in renal infections, medication is prescribed for too brief an interval. The kidney is an excretory organ which can filter antibacterial agents so promptly that little parenchymal retention may result. For complete eradication of bacterial foci, medication must be continued not merely until the temperature is normal but until at least a week has elapsed since bacteria have been found in the urine and for at least five days subsequent to febrile subsidence. With cessation of medication, urine specimens should be evaluated by smear at two-week intervals for a month.

Turning to the cystitic types of urinary infection, it is first necessary to ascertain if the symptoms are secondary to inherent bladder inflammation or derivative of precursory upper urinary tract infection. In most instances, signs and symptoms relating to an upper tract focus will be pointedly in evidence, with the exception of renal tuberculosis wherein bladder irritation may often be the first indication of involvement.

The majority of cystitic episodes which the physician encounters in women will be accompanied by a history of periodicity and a definitely chronic course. Many previous urologic evaluations may have determined no structural aberrancy to account for persistent exacerbation. In such cases the frequency of cervical and vaginal infections, conjoined to lamentable vulvar hygiene, must be considered as instigative factors, and often only attention to such gynecologic matters will prevent cyclical infection. In many women the persistance of redundant parameatal hymeneal tags has not been appreciated as an obstructive element, and a mechanism for the apposition of bacteria to the meatus. Post-voiding wiping of the meatal area affords entry of bacterial flora and eventually access to the bladder. In such instances the practice of circumcision of the tissue tags is not without benefit in the obviation of repetitive bladder infections. Similarly, parameatal ducts may become chronically infected and afford precursory bacterial instigation for vesical infection. Marsupialization of the entire duct will afford drainage and a cessation of inspissation of the material. It is in the omission of inspection and palpation of the urethra and meatus that such entities remain obscure, and especially is this true of urethral diverticula. In the presence of a diverticulum some palpatory variation from normal will usually be elicited along the course of the urethra and more particularly when symptoms are in exacerbation. The presence of pus extruding from the urethra is confirmatory. Any irregularity, thickening or cystic mass along the course of the urethra requires endoscopic and possibly

urethrographic delineation. Surgical removal is the proper treatment.

The therapy of isolated cystitic attacks can often, subsequent to the delineation of a bacterial etiology, rest with the selection of a sulfonamide preparation. With rapid subsidence of symptoms and clearing of the urine, further study is obviated. The sulfonamides have appeared to be quite satisfactory in such instances and are productive of few of the side reactions so prevalent with the antibiotics. Very little variation has been noted in regard to the efficacy of the various sulfa preparations. The highly soluble products such as Gantrisin, Thiosulfil, Elkosin, Triple sulfas and lately Kynex have statistically been equally effective and carry little inherent morbidity.

In the management of women with irritative bladder symptoms and an uninfected urine, the practitioner will find almost invariably that in addition to specifically urinary symptoms there are a myriad of seemingly unrelated complaints: low backache, fatigue and suprapubic discomfort. At some time in the past an infection may have been present, and often these patients will have received innumerable bladder and urethral treatments in addition to a variety of drugs despite the absence of any demonstrable infection. Such individuals may be screened promptly and fairly completely without resorting to any extensive urological evaluation. A check of the urinary residuum will clarify any obstructive basis. Simple measurement of bladder capacity and tone with a dilute antiseptic solution will often delineate abnormalities such as interstitial cystitis or the neurovesical disfunctions. The possibility of urethral stricture is ascertained in the passage of a catheter. Women with no demonstrable anatomic or functional vesical aberration who constantly insist upon instrumentive or pharmacologic vesical psychotherapy are numerous and not easily discouraged in their quest for a counter-irritant to underlying tension and anxiety.

In summary, the treatment of a urinary tract infection is a serious responsibility since all other considerations must be subservient to the preservation of functioning renal tissue in as expeditious a fashion as possible. Knowledge that the appearance of cells and bacteria in the urine may often be solely a manifestation of a disease process promulgates the maintenance of a high index of suspicion referable to a variety of pathologic entities which can be clarified only by careful evaluation of symptoms, signs, historical background, age and gender of the patient. Obstruction is the common precursor of most infections and must be eliminated to insure successful therapy. Infection must be treated swiftly, suitably and for a sufficient period of time to insure saturation of renal tissue. Lower urinary tract disorders resulting in infection are equally important and should be promptly attended to in order to deny access of the infection to the kidneys, for it is the kidney which is the most important consideration in any urinary tract infection.

DIABETIC ACIDOSIS

(Continued from Page 1414)

serum will become acetone-free. Only after this will ketonuria subside.

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Dr. Whitehouse
2799 W. Grand Boulevard,
Detroit 2, Michigan.

The Physician's Responsibilities in the Management of Rheumatoid Arthritis

By Leonard F. Bender, M.D., LL.B.
James W. Rae, Jr., M.D.

Ann Arbor, Michigan

IN SPITE of new discoveries and advances in the treatment of rheumatoid arthritis, the most important part of the management of patients with this disease today is the prevention, or minimizing, of deformity and the maintenance or improvement of function. The numerous remedies that have been promoted for use in arthritis tend to detract from the appreciation of the value of physical treatment in preventing crippling and disability. Hill and Holbrook[1] have estimated that not one patient in a hundred is following a proper schedule to protect his joints and maintain function. This is a serious indictment of our medical care programs for patients with rheumatoid arthritis. Whether one agrees with these figures or not, all will agree that a high percentage of patients fail to carry out any program, or go at it half-heartedly, or eventually tend to lose interest in even a carefully planned and effective schedule of treatment.

A survey of arthritic patients at University Hospital, Ann Arbor, was recently conducted[3] to help evaluate our program of instruction in home treatment and to shed some light on why patients continue or stop their home-treatment schedules. Fifty-six patients who had previously been instructed in adequate home programs were personally interviewed. At the time of the interview, five patients had stopped their home treatment because of improvement in their condition. Of the remaining fifty-one, twenty-seven were still continuing adequate home-treatment programs, but twenty-four patients who needed physical therapy were not treating themselves adequately. Six of these twenty-four patients never started on their recommended home program and eight stopped home treatment between two and four months after their instruction. This was greater than the number stopping in any other comparable period of time.

There are various factors contributing to the frequent failure to utilize physical treatment adequately in the management of rheumatoid arthritis. Some of these are personal concerns of the patient, situations in which the physician may offer counsel but which otherwise are beyond his control. Other factors revolve about the physician's failure to take into account the patient's emotional and social status as well as his physical condition.

Proper management of rheumatoid arthritis by the physician includes: (1) understanding and conveying to the patient the importance of established principles of care, (2) prescribing adequate physical measures, (3) scheduling appropriate daily activities and proper rest, (4) instructing the patient fully, and (5) providing for adequate follow-up care and evaluation.

Basic Principles of Care.—Every physician who assumes the responsibility of caring for the patient with rheumatoid arthritis should recognize the need for establishing a program of symptomatic, constitutional, and supportive measures designed to relieve pain, prevent or minimize deformity, preserve or increase joint range and muscle strength, and maintain or improve functional capacity. Physical treatment (consisting of heat, massage, and therapeutic exercise) has proved valuable in attaining these goals. To be most effective, physical therapy must be combined with the other established principles of care, such as, increased general rest, adequate local rest of the involved joints, avoidance of strain and irritation of the involved joints, intelligent use of splints, supports, and shoes, and other medical agents (steroids, gold salts, et cetera) and surgical procedures as indicated. Daily home treatment prescribed and supervised regularly by a physician who understands the physiologic effects of physical measures is an essential part of an adequate treatment program for individuals with rheumatoid

From the Department of Physical Medicine and Rehabilitation, School of Medicine and University Hospital, University of Michigan.

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arthritis. Too frequently, in clinics, patients are seen who have had courses of steroid therapy or other medical management without ever having been instructed adequately in a consistent and logical home physical treatment regime. The physician must realize the importance of a comprehensive approach in the treatment of rheumatoid arthritis.

Prescription of Physical Measures.—All too frequently, physicians will send patients to the physical therapist without a prescription other than a request for "physio." The therapist is expected to choose the treatment procedures and to establish his own objectives. In effect, this leads to the practice of medicine by the physical therapist, who has had only limited medical training and this tends to divorce the physician from an important part of the treatment program.

No therapeutic measure should be prescribed unless there is a specific reason for its use. Routine prescription of heat, massage, and exercise should be avoided. To obtain the most effective use of physical agents in the treatment of arthritis, the physician should provide the same carefully considered and accurately written prescription for physical procedures that he would for drugs.

No prescription for physical therapy is complete if it does not provide the physical therapist with the following minimum information:[2]

1. Diagnosis.
2. Parts to be treated.
3. Specifications regarding procedures, or at least the major objectives desired.
4. Special instructions regarding anesthetic areas, areas of circulatory embarrassment, removal of dressings, splints, etc.
5. Number and frequency of treatments.
6. Date for re-examination by the physician.
7. Outline of home instructions if indicated.

Frequent evaluation of the patient's condition is necessary in order to decide whether to continue, discontinue, or alter the treatment program; obviously, therefore, the physician should not lose contact with the patient who is treated by the physical therapist or who is carrying out a home program. The interval between visits of these patients to their physicians should not exceed two months, in our opinion.

The intelligent use of physical measures and agents requires that the physician have a working knowledge of their physiologic effects. In arthritis, heat is used for its analgesic, muscle relaxing, and vasodilating effects. Massage, when properly applied, can increase the venous blood flow or lymph flow, but it is used primarily for its sedative and muscle-relaxing effects. Therapeutic exercises employed in arthritis are designed to increase the range of motion of joints or to increase the strength or endurance of muscles. Exercise is the most important part of the physical therapy program.

A therapeutic exercise program may consist of many different types of exercise. Passive and active assistive types of exercise are used to maintain or to increase the range of motion of involved joints. These mobilization exercises should be slow and rhythmic and should operate through the fullest range possible. Muscle-setting exercises can be used to help preserve the strength of large-muscle groups. Progressive resistance exercises are most effective in increasing muscle strength. Training in posture and in gait may improve body mechanics and reduce strain in the involved joints.

It is essential that therapeutic exercise be performed properly. Purposeless wiggling of the joints is futile. Several short periods of exercise daily are better than one long period. If pain persists more than two hours after exercise it is an indication that the exercise was too vigorous.

The Schedule of Activity.—Every patient with rheumatoid arthritis should be placed on a schedule of activity which provides a balance between rest and exercise. Extra rest prevents and minimizes general fatigue and benefits affected joints. Many times inflammation will subside when joints are rested and properly splinted and strain is removed. The optimal daily average of rest in bed is ten to twelve hours, but during exacerbations, twelve to twenty-four hours may be indicated. If the patient is not properly instructed he is likely to assume a flexed position in bed. In order that a patient may rest in correct position a firm flat bed is required. Successful treatment calls not for rest *or* exercise, but rest *and* exercise.

Instruction of Patient.—Even when the physician does use those measures which have proved to be of value in the management of the patient with rheumatoid arthritis, the patient often will not follow the advice given for home treatment. The physician plays a large role in motivating the patient to carry out an adequate treatment program. It is easier to outline a treatment program than it is to prepare the patient to carry it out.

It is probably true that physicians spend more time evaluating a patient and establishing the direction of treatment than they do in explaining the various treatment procedures, yet the latter is certainly of equal importance. The physician should take the time to explain rheumatoid arthritis as a disease and describe its natural course. He must outline the objectives of the treatment to the patient and thoroughly explain the limitations of the various techniques. If this is done the patient is less likely to entertain hopes of cure or expect reversal of damage already inflicted by the disease process. Somehow the physician must help the patient to gain insight into what can be accomplished by physical treatment. The patient must eventually realize that it requires an investment of time and effort on his part and that any benefits will be the result of his own hard work.

The method of instruction should take into account individual differences in intelligence. Some patients will learn much more slowly than others. To some of these, the simplest procedures will appear too complicated to follow. Highly intelligent persons will grasp principles and techniques quickly, but since at best only a certain amount of material can be retained from any one lesson, it is well to instruct the patient two or three times in the actual procedures he will be using at home.

The most successful method is demonstration by actual treatment. If possible, relatives or friends of the patient should watch the procedure and even take part in it so that both the patient and whoever will be helping him are given the same view and the same understanding of the techniques of treatment. Clearly written instructions will serve to refresh the patient's memory when he is at home and "on his own."

Follow-up Care.—A highly important feature of the home-treatment program is the patient's regular re-evaluation by his physician, so that the treatment may be modified according to changes in the patient's condition. Frequent rechecks on an outpatient basis are necessary, to instruct the patient in modified techniques or new techniques as indicated. Adequate follow-up care in some cases may mean the difference between success and failure of the treatment; moreover, it may provide the key to the difficult problem of motivation of the patient in his long and arduous program of home care.

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PUBLIC HEALTH STATISTICS

The graduate summer program in public health statistics at The University of Michigan will be extended an additional two years. Taught for the first time this summer, the program drew sixty-nine students from United States and foreign health departments.

Designed to train specialists in the fields of records maintenance and medical research, the program was developed under a grant from the U. S. Public Health Service.

An evaluation committee composed of Jacob E. Bearman, M.D., University of Minnesota, Lila Elveback, M.D., Tulane University; and Mr. William Haenszel of the National Cancer Institute recommended the program be continued at least two more years.

The second session will be held at the University of Michigan School of Public Health during the summer of 1959.

Teenage Delinquency

By Abraham Gardner, M.D.
Lynn, Massachusetts

BECAUSE OF LIMITATIONS of time this presentation can touch on only a few aspects of the question under discussion. "Teenage delinquency" refers to the social maladjustments or conflicts of children in their teenage years and is a continuation of juvenile or preteenage delinquency, or, at least, it stems from juvenile influences.

We are informed that teenage delinquency has increased about 70 per cent in the past nine years across the nation. From reading and listening to the publicity given the subject, we have become painfully aware of the increase in the violence of the antisocial acts of this group of offenders. Of late the newspapers seem to be carrying daily articles on delinquency. These range over such extremes as murders, rape and the recommendation of a New York sociologist that a system of puberty rites be instituted, patterned after aboriginal tribal puberty rites. He argues that this would be more acceptable than the weird, wild and violent criteria now being developed and established by the delinquents themselves.

Also, we read such discussions as one that the children of Nigeria rate an "A" for conduct. The explanation is that there is but minimal delinquency in that country and this is due to the fact that disciplinary punishment there is quick, firm and strict. It goes on to state that when the parents are absent the authority for meting out such punishment passes down the line of older siblings in the order of their seniority. I should dislike being the youngest of a large family there.

Recently, in one of the Boston newspapers, I read a letter written to the editor by a woman who has, shall we say, a peculiar slant. She recommends that all delinquents be emasculated so that they would be unable to reproduce themselves and thus provide more delinquents for our communities. Apparently she doesn't realize that the female of the species is, if not more deadly, at least as much so. Furthermore, since when are we to assume that delinquency is to be attributed to hereditary factors?

After twenty years in psychiatry, including a goodly number of years as consultant to a busy juvenile court, and, as director of a general psychiatric out-patient clinic in a sizable general hospital, I have come to certain conclusions about human beings and their behavior. It is fairly clear that intelligence is not the chief factor in the determination of human behavior. Probably all of us can bring to mind individuals of high intelligence who are lazy and underproductive, as well as people of low intellectual endowment who are good parents, good steady workers, who stay out of trouble and who may be doing yeoman work in our sanitation departments and elsewhere to safeguard the health of our communities. Physical health alone also cannot be considered as the greatest influence on behavior, although it, and intelligence may contribute somewhat.

I am of the opinion that the simple, elementary or fundamental mechanism of learning, leading to reflex and habit development in the relationship between the individual and his environment, is based on the pleasure-pain principle. As this becomes more elaborated and complex, it leads to the evolution of emotional patterns. These patterns are chiefly influenced during the formative, preschool years, that is, the first six years of life, approximately. In our society, where the father is usually occupied in the role of wage earner, the major portion of the burden of molding the emotional patterns and social habits of the child falls on the mother. It is, for the most part, her lot to feed, clothe and wash the child, to train him in his toilet habits and adjustment to other members of the family and to other children in the neighborhood, as well as multiple other guiding habits and experiences—from rising in the morning to retiring at night.

From the age of about six years, when the child goes to school, to puberty, the mother divides this responsibility with the school teacher but still retains the major portion of the load. Here it must be stressed that during school hours the teacher,

Presented at the meeting of the Michigan Academy of General Practice and the Wayne County Fall Post Graduate Assembly, Detroit, November 7, 1957.

of necessity, takes on the role of secondary parent and this is not to be taken lightly without the risk of serious trouble.

During all the years from birth on, the father, because he is the wage earner and being out of the home most of the day, may carry a lesser portion of direct responsibility, but this does not excuse him from contributing his share of assistance when he is available. In the earlier years he helps his mate, to some extent eases her burden and plays the part of an assistant as well as that of authoritative support. As the child grows older the father's role is more authoritative and his guiding influence is a more direct one. This reaches its greatest significance at about the time the child reaches puberty, especially with boys.

From puberty to about eighteen or nineteen years, the influence of the parents and teachers tends to diminish gradually as the child evolves into an independence-seeking young adult. With these thoughts in mind, I would like to review briefly some of the events of the past half century. These, I believe, offer some explanation of the evolution of the problem of delinquency which is causing us so much concern.

In the so-called "horse and buggy days" during the first decade of this century, it appears that the situation was fairly serene and quiet. With the coming of World War I, for the first time in numbers of any major significance, women embarked on a large and active role in the war effort; some of them getting into uniform as well. Following this war there came a sort of social revolution which we may call the "flapper era" of the 1920's. Women cut their hair short in "boyish bobs," dressed so as to flatten or conceal their curves, and perhaps with some significance, seemed to try to disguise the fact that they were feminine. During this period we also saw women in large numbers leaving their homes to enter the career world. The depression years, to some extent, had a sobering effect. However, the prohibition law had been enacted and, as we well know, brought with it a loss of respect for law, order and authority. Next came World War II and now, women, literally millions of them, went from their homes into factories, offices, uniforms, et cetera, on a full-time or part-time basis—often earning unprecedentedly high pay while doing the work formerly done by men. Teenage "victory girls" haunted Scollay Square in Boston and similar localities in other cities. At the same time their older sisters, increasingly independent, began to frequent public drinking places unescorted, and some of them became bar girls, on the make for free drinks and male companionship. Teenage boys, imaginations fired by war news and war heroes, played at games of war and dreamed of becoming old enough for service eligibility so that they too could get in on the shooting. Not infrequently these dreams were nurtured by the absence of their fathers employed in the war effort, and the unwitting neglect of their mothers who were working and had become accustomed to independent and "unescorted" social and recreational pursuits.

Following World War II there came the Korean conflict, headlines shouting of political greed and dishonesty, and persistent tensions at the international level. Thus, we see several factors which appear to offer some explanation of the present delinquency problem.

1. The emancipation of the woman from the home and the consequent deterioration of the home in our society. I feel this is the most important factor for we cannot speak of society without remembering that the home is its fundamental unit, and that it is the mother who is best able and most influential in the making of a home. The basic principles of ethics, morals, religion and all acceptable social attitudes are taught, in the beginning, at the mother's knee. These, however, do not take on meaning unless the atmosphere of the home and the example of the parents, under daily observation by their children, are in accord with their teachings.

2. Demoralization of the teaching profession resulting from restriction of building of schools during the war years with resultant overcrowding; failure of the program of remuneration for teachers which even to the present time has not been fully corrected; and, in some communities, the infiltration of undesirable political influence—peddling of appointments and promotions of teachers so that the qualifications of many teachers are not as high as they should be.

3. Further deterioration of respect for law, order and authority relating to the political scene wherein many people feel they are being taxed excessively and that it is smart to try to outwit the government on this score. Also the widespread feeling that dishonesty, graft, and shrewd behind-the-scenes manipulations are inherent in politics. Still further are the unremitting, fre-

quently-flaring-up international tensions and their dealings which the average layman finds so difficult to comprehend.

Such a loss of respect for law, order and authority appears to have filtered down from the international level to the individual. Often this attitude is transmitted subconsciously to the children. This state of demoralization would tend to oppose and offset to some degree the teachings of church and clergy as to an ethical and moral way of life.

The many paradoxical attitudes of adults in their moral and ethical dealings with their fellow men, at all levels, is not one that might be expected to be helpful to the young people. I refer here, as examples, to such matters as the question of integration, discriminatory practices involving racism, and employment, attitudes toward the handicapped and older workers who are still skillful and able to work.

These influences are by no means peculiar to our own communities in the United States, and, as may be expected, the problems of delinquency are severe in other nations—wherever these factors prevail.

If we ask ourselves, therefore, who and what are the causes of this difficult problem, the answers, at least in part, are fairly apparent and logical from the preceding discussion. Also, what is needed to bring about a better society becomes quite obvious. Certainly, we doctors (and that includes psychiatrists) are neither qualified nor equipped to produce any rapid or drastic changes for the better at the international or national levels. With courage, persistence and organized activity at the local or grass roots level, it probably would be possible, over a period of time, to bring about a greatly improved climate, politically, and expand it from there even to the national scene. However, this Utopian state of affairs, as of now, is but a rosy dream.

We would gain much more, I believe, if we turned to more elementary factors within the scope of our activities. Let us remind ourselves again, that the home is the unit of our social structure. Ideally, the home should consist of a mother and father providing for the physical and material needs of their children, while, at the same time, furnishing by precept and example, the moral and social training required in our way of life, in a benevolent atmosphere of love, harmony, mutual respect and emotional security.

I do not mean to suggest that women should return to the kitchen and desert careers, jobs, community and civic affairs. I do suggest, however, that those women who seek to combine home duties and careers should maintain a proper perspective as to which is the greater responsibility. I suggest that fathers and mothers, both, give their attention to their offspring in adequate degree so as to keep them out of delinquency. I feel they should not beg off their responsibility with excuses, such as—they were too busy with other matters, or that they did not know what was happening. If parents will provide for their children's needs, delinquency will be kept to a near minimum. Where parents fail, we see the young people exhibiting reactions of insecurity, hostility and rebellion. We may ask ourselves whether delinquents are sick people. It is my view that most of them are reacting normally to the abnormal circumstances of their lives and should not be considered sick. A small percentage are sick and need attention, but for the most part the problem is social and not medical. In other words, I would venture the opinion that the majority of these delinquents are aware of the antisocial nature of their behavior and are unconcerned.

Teenagers, who are not in conflict with society, manifest strong drives to assert themselves and establish adult status. At the same time they are in conflict with themselves, being neither children nor adults, and they feel a similarly strong need for direction and guidance. Outwardly they tease, push and test their parents to extremes while inwardly, they are greatly relieved when the parents show understanding and help guide the way. The parents meanwhile are often under much stress for fear they might mishandle the responsibility and not use the required amount of tact in dealing with their children.

The problem group of teenagers, on the other hand, care little about parental influence, quite often with just cause. These young people concentrate almost exclusively on asserting their adulthood. They deny the need for direction and adopt false standards as criteria of their desired status. They have great need for belonging to groups or gangs and gaining approval of the group, even if by means of these criteria. Thus, they show immature, senseless sexual behavior and get into gang fights or rumbles, violence and all sorts of acts lacking ethical or moral values, as indications of their assumed independence and superiority.

For these young people who take unto themselves such independence, who set up as it were, a separate society with separate rules of behavior, the outlook is not a happy one. They are in conflict with society as a whole and the majority cannot subjugate itself to the misguided few. Acts of violence should be dealt with as provided for in our laws. If teenagers wish to be considered adults generally, why isn't it reasonable they be expected to face the consequences of their acts as such?

We may hear shouts of "No! No! These are but children! They need psychiatric evaluation, sociological readjustment, love and guidance!" In answer to this I say that some fifty years of child guidance clinics, psychiatric evaluations and whatever love and guidance have been available, have failed to control the problem. It has grown and is growing! The real work is to be done in the area of prevention. Here I wish to express the belief that we shall probably never be able to provide enough professional personnel, such as, doctors, social workers, police, probation officers, et cetera, to even begin to cope with this problem successfully. Certainly clinics are of some help, evaluation helps in understanding, police, courts and ancillary departments are needed, and recreational and athletic programs are worthwhile. I would point out that often it is the delinquent youths who are most proficient in these athletic and recreational programs and sometimes they are leaders in the groups, but this does not deter them from their delinquencies.

At present I can see but one source of near adequate personnel to meet with and control this problem and that is the parents themselves. Somehow they must be called upon to do their jobs adequately. Please do not misunderstand. Most parents, by far, wish to do so and do manage to do a creditable job with their children. I am speaking here of the parents of the 5 or 6 per cent of our young people who are under discussion in this paper.

In some states laws have been passed whereby parents are held equally responsible with their delinquent offspring. Some controversy has arisen regarding the constitutionality of such laws. I am not an attorney and cannot judge this, but I feel that logic supports such legislation. In Massachusetts there is a law, and it is quite an old one at that, which provides that parents are held responsible for their children's attending school and, that they are subject to fine up to $20.00 each time they are found guilty of failing in this duty. With this law as a basis and on the theory that frequent truanting might be a forewarning of further delinquency, we tried an experiment at our juvenile court session. The school attendance officers provided us with lists of pupils who were frequently repeating truants. Their parents were divided into groups of about one hundred persons and called to assemble in open court sessions. There the presiding judge, in all his dignity and wearing his judicial robes, addressed them from the bench. He read the law to them and then gave them stern warning of his intent to bring them to court, and fine them as often as they continued to fail in their duty. To our pleasant surprise there followed a reduction in truancy ranging between 80 and 90 per cent and lasting two and a half to three months. This was true in all the groups and the drop in truancy was accompanied by a drop in other delinquencies.

This suggests that some parents can be stimulated to do their part in the control of the problem of delinquency. I suggest, further, that such programs when instituted, will require repeated action and unremitting persistence. As I stated at the outset, this discussion would, of necessity, be limited to a few aspects of this question of teenage delinquency. We could talk for many hours without exhausting the subject. I have here offered some theory as to the causation of the problem and some generalized suggestions for meeting it. I do not delude myself with ideas that I have suggested a general cure, but I would like to feel that I have pointed a finger in the right direction.

ESSAY AWARD

The American Congress of Physical Medicine and Rehabilitation conducts an annual essay contest and also sponsors the Bernard M. Baruch Essay Award. These contests are open to medical students and students in the field of physical medicine and rehabilitation. Awards are presented to persons submitting essays on any subject in the field of physical medicine and rehabilitation who have been selected by the Congress Committee on Essay Award as the prize winners.

Echo 9 Viruses

By R. G. d'Adesky, M.D.
Marquette, Michigan

EVEN THOUGH some of the viral diseases have been known for many years, new disease-entities are constantly being brought to our attention.

Among these, particularly with the improvement in identification of viruses, are the so-called Echo 9 viruses, short for enterocytopathogenic human orphans. The two cases reported here would probably have been labeled nonparalytic poliomyelitis in the sake of true etiology and also in order to evaluate the protection given by the poliomyelitis immunization program.

Case Reports

Case 1.—The first is that of a thirteen-year-old boy who consulted Aug. 4, 1957, because of fever and neck stiffness. He had been immunized against diphtheria, pertussis, tetanus (DPT) and smallpox as a baby and had three injections of Salk vaccine in 1956.

On examination, his fever was 102°, his neck was stiff with a positive Kernig's and Brudzwinski's sign. There were no other symptoms. A lumbar puncture yielded spinal fluid under normal pressure, cloudy with 895 cells per cu. mm., having 84 per cent polymorphonuclear leucocytes and 6 per cent lymphocytes, increased protein, 89 mg. and normal sugar. No bacteria were seen on direct smear or found on culture. His white blood count was 10,900 with 68 per cent polymorphonuclear leucocytes and 32 per cent lymphocytes. Feces and blood studies were sent to Lansing along with other samples of blood. The reports came back that Echo 9 viruses were isolated.

Case 2.—On August 10, 1957, a ten-year-old girl was seen with the complaint of nausea of twelve hours duration and low grade fever of 101°. Her past history did not reveal any pathology. She had been immunized against DPT and smallpox as a baby and had received two Salk vaccines four weeks prior to consultation. She was given Thorazine 12.5 mg. every four hours, and was instructed to return the following day for a check-up.

Her mother stated that she vomited once in the morning prior to her second visit. At that time her fever was 101°, and a lumbar puncture was advised which the mother refused. She went home but returned the next day because she had vomited twice during the night and suffered from a headache.

Her physical examination was again negative. A fundoscopic examination was normal. This time the lumbar puncture was performed and pleiocytic spinal fluid under normal pressure with 1,287 cells per cu. mm. of which 94 per cent were polymorphonuclear leucocytes. Her hemoglobin was 11.3 gms., urinalysis was normal. No bacteria were grown on culture or seen by direct smear. Her red cell count was 3,400,000 and her white blood count was 7,500 with 70 per cent polymorphonuclear leucocytes. She began to complain of mild cervical pain and had a slight rigidity. Because of her immunization with poliomyelitis vaccine, viral studies were undertaken with blood and stool samples. Two months later the report came that the Echo 9 viruses had been isolated from her blood.

Her subsequent hospital course was uneventful, her fever subsided in forty-eight hours, her headache and nausea disappeared and she recovered completely thereafter. Four days later a second lumbar puncture showed much improvement. There were 195 cells per cu. mm. in her spinal fluid, of which 10 per cent were polymorphonuclear leucocytes and 90 per cent lymphocytes. She was discharged after a week. She was again seen three and six months later and was entirely normal.

In conclusion, in the presence of any meningoencephalitis, viral studies including attempts at isolation are now becoming imperative.

ECONOMICS OF MEDICAL CARE

"The American people today—through newspapers, magazines, books, radio and television—are better informed than ever before on the advances of medical science. They also are extremely interested in the socio-economic-legislative aspects of medical care. They want good, modern medical service, at a reasonable cost, and through financial mechanisms which will protect them against severe drains on their incomes. Our job is to prove without doubt that private voluntary programs will meet that need far better than panaceas which would extend government control, decrease the quality of medical care and increase the cost to all taxpayers.

"The main avenue of approach, as I see it, is to give vigorous support to the further growth and improvement of voluntary health insurance. The time has already passed when physicians can merely look upon it as the lesser of two evils, or can simply pay lip service to its existence."—R. B. Robins, M.D., Camden, Arkansas, Delegate to the A.M.A.

The Michigan Postgraduate Program in Medicine

Extramural Courses

1958-59

The Michigan State Medical Society, in co-operation with the University of Michigan Medical School, Wayne State University College of Medicine, and the Michigan Department of Health announces the extramural postgraduate program for the fall 1958.

Centers	*Dates*
Alpena	November 6
Battle Creek	October 7
Bay City	November 5
Jackson	October 21
Lansing	October 28
Midland	November 13
Muskegon	October 17
Port Huron	October 7
Roscommon	October 16
Traverse City	November 6
Upper Peninsula	
Escanaba	November 11
Menominee	November 12
Iron Mountain	November 13
Sault Ste. Marie	November 10
Ironwood	November 11
Houghton	November 12
Marquette	November 13

Intramural Courses

University Medical Center, Ann Arbor

Clinical Internal Medicine (Thursdays)	October 2, 1958-March 5, 1959
Clinical Exercises for Practitioners (Wednesdays)	October 8, 1958-March 4, 1959
Gastroenterology	November 10-14, 1958

1959

Anatomy (Thursdays)	February 12-May 28
Internal Medicine	
Pulmonary Diseases	March 16-20
Recent Advances in Therapeutics	March 23-27
Diseases of Blood & Blood-forming Organs	March 30-April 3
Diseases of the Heart	April 6-10
Electrocardiographic Diagnosis	April 13-18
Rheumatology	April 20-24
Metabolism and Endocrinology	April 27-May 1
Ophthalmology	April 20-22
Otolaryngology	April 16-18
Pediatrics, Obstetrics and Gynecology	January 26-30
Radiology, Diagnostic	April 6-10
Radioactive Isotopes, Clinical Use of	As arranged

Further information and application blanks may be obtained from: John M. Sheldon, M.D., Director, Department of Postgraduate Medicine, 1610 University Hospital, Ann Arbor, Michigan.

Communications: 1958-59

Other presidents have used this page to inform, argue, cajole, preach, brag, deny, interpret, etc., ad infinitum. That leaves me with considerable latitude in what I may choose to publish. I intend to take full advantage of that fact and, in the main, just talk each month as informally as if we were together in Charlevoix contemplating the sunset from our family room window.

I guess we live in pretty much of a catch-as-catch-can world. I'm informed the Master has a master plan but, so far as I've been able to see, nobody below that level has come up with one, and I don't think it would sell, anyway!

Which leads to the conclusion that if our temporal *plans* can't be all-masterful and all-encompassing, then we must rely on *principles* and *objectives*. One of the principles I would like to have re-emphasized by the MSMS during my term as President is—that a free interchange of opinion and information among its members and with other professions can advance the medical profession toward two of our avowed objectives:

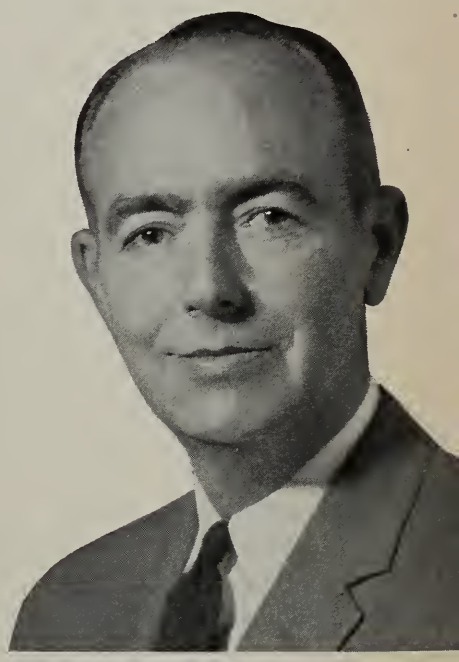
- the promotion of better understanding between ourselves and among the several professions, and
- the participation of all our members and the members of all the professions in programs having for their purpose the advancement of professional ideals and professional welfare.

These principles and objectives are certainly in the public interest, which is always our number one objective; we have nothing to hide. Let's lay it on the line.

Delbert B. Dalton

President, Michigan State Medical Society

President's



Message

Editorial

JEROME CONN—BANTING MEMORIAL LECTURER

Dr. Jerome W. Conn of the University of Michigan was selected to deliver the Banting Memorial Lecture this year at the 18th annual meeting of the American Diabetes Association. This honor has never before been extended to a doctor from Michigan and Dr. Conn deserves our sincere congratulations.

As the chosen lecturer, he also received the Banting Medal. Dr. Conn for years has been known as one of the top research physicians in Endocrinology and has lectured on his chosen subject in this country, in Europe, and in South America.

Michigan has a right to be proud of this great scientist and THE JOURNAL is exceptionally fortunate in being able to publish the Banting Lecture in this issue.

WM. M. LE FEVRE, M.D.

BLUE SHIELD PROGRAM M-75

The new contract policy has been published in its entirety in THE JOURNAL. This is a complete revision, a very elaborate extension of services and a completely new set of rules in an attempt to give our subscribers the type of service they wish, and to give our doctors the very best possible working contract so that all may be served to the best of our ability. This represents more than two years of intense study. Committees from The Council, committees from the House of Delegates, and private study committees from various parts of the state made reports to a special meeting of the House of Delegates in April, 1957. An extensive Opinion Study was made, as were questionnaires and studies involving every practicing physician who would respond. The people were asked what benefits they desired; the doctors were asked what services could be given and how.

The Owen Committee of the House of Delegates, after much work, published a comprehensive analysis and made specific recommendations. The Slagle Committee from The Council made an independent study and also recommendations. These two committees with the facts of the Opinion Study were consolidated by the reference committee, and a specific program was outlined consisting of a set of principles which should be the guiding directive. The House unanimously adopted this section and instructed The Council to appoint a special committee of its own, and Michigan Medical Service to establish a policy culminating this program. All of this has been accomplished and the policy has been published. To the n'th degree the instructions of the House have been carried out: setting up an insurance program, and a service program involving many things, but centering upon an entirely new schedule of fees. The committee was instructed to develop a new relative value fee schedule for Michigan, but while that was being done to adapt to our needs as we could the relative value fee schedule of California which has four values. This has been done. Conferences have been held by these various fee schedule committees and by the committee on medical care insurance and a tentative program of fees has been adopted pending the report of our own committee with a Michigan relative value fee schedule.

A deadline of conferences between these various committees had to be set up and the working out of the policy M-75 was approved by the state insurance commissioner. Although some groups failed to consult with the committee within the necessary time limit, a working schedule has been established. The permanent schedule has not yet been adopted and that committee is still working.

A gigantic job has been done, and a working fee schedule (which is not final) has been published. There probably never will be a schedule published which will be totally and completely satisfactory to everyone. Contained in the present program is a method by which inequalities and inadequacies can be ironed out by special councillor district committees. The final fee schedule is still to be published and the program calls for a Permanent Advisory Committee on Fees. The Michigan State Medical Society realizes, and always has, that conditions are changing, responsi-

bilities and availability of services and procedures are changing. When Blue Shield was first established, those pioneers spent many hours in many different meetings trying to set up a justifiable method of paying for specialty services and at the same time write a contract that would be acceptable to the profession as a whole.

At that time, there was a strong feeling that possibly men in the surgical specialties were being paid more liberally than those in the medical specialties and the general practitioners. This was a problem the profession had had for the preceding seventy-five years and had not solved. There is evidence developing as this is being written, showing that certain groups, specialties, and others representing groups of specialties, are advocating non-compliance with the published program of the State Medical Society in order to force their particular ideas of payment upon the profession. The Michigan State Medical Society represents the whole membership and it realizes that there are some inequities and would be happy to find a formula to which all would agree. One reason this standing fee schedule committee was appointed was to establish for Michigan a relative value schedule which could be accepted and worked out by all our membership.

COMPLETE MEDICAL CARE PROGRAM

Certain branches of the labor organization, Local 7 of the Michigan CIO, in their news edition of January 23, 1958, have announced that a complete medical care program is available right now (that is on that date) by which any laborer, cooperative organization, or credit union could have complete group hospital insurance and medical service. Medical care service would be rendered by doctors assigned to them working on salary without office or financial expense, so that they could devote their time to the practice of medicine instead of collecting bills. This program is based upon the Group Health Association established a year or so ago and which is ready to be activated in Detroit or elsewhere in Michigan. If the Michigan State Medical Society cannot arrive at a workable program and give service to its subscribers, the millions of people who wish this service will certainly take steps to activate the above mentioned Group Health Association which has some medical staff already and could very easily get more or a drive could be made on Washington.

NON-PARTICIPATING DOCTORS

The Seal of Assurance Committee, which was set up to secure participation of our Michigan State Medical Society membership in the new M-75 group insurance program, has had some rather serious opposition to its activities. The successful operation of Blue Shield at its beginning and its successful continuation depends upon there being enough participating doctors to guarantee service to the subscribers. When the enabling act was passed, this question of participation had not arisen and was not included, but before the insurance commissioner would allow the program to be sold it was necessary to convince him that a sufficient percentage of our membership would agree and guarantee that the promised services would be given to the public.

The new program and its advantageous principles soon gave more than 80 per cent of the membership as participating, which meant at that time (and still does) that if the receipts through the sale of these service policies should be inadequate to pay for the services rendered, the doctors agree to accept what was paid on a pro-rata basis. There was serious opposition in areas but the insurance commissioner allowed the contracts to be sold when convinced they could be serviced.

The two committees appointed to study the over-all situation and to make recommendations, the Owen Committee appointed by the House of Delegates and the Slagle Committee appointed by The Council, found a fixed belief that the non-participating doctor was not carrying his burden and that the participating doctor made the sale of the Blue Shield program possible. They believed, as other State Associations have, that some distinction should be made between the two. The Council, in reviewing the Slagle Committee report, removed that particular item before sending it on to the House of Delegates at the September, 1957, meeting. The House of Delegates Owen Committee included it. The Opinion Study report found the feeling to be almost equally divided. The reference committee left it in the final report and set of principles which were established. Government, the Veterans Administration, and the labor unions have demanded lists of participating doctors and have been refused from the very beginning.

Since the Seal of Assurance Committee has started work there has been organized opposition to this established policy of the Michigan State

Medical Society. One group has been writing letters to the membership of the State Society urging non-participation. Another group, which was established July 14, is even more vigorous in its opposition to participation, even to continuing Blue Shield. Participation is fundamental to the Blue Shield theory as exemplified in Michigan, where it is completely a function of the Michigan State Medical Society.

WHY THE INSURANCE PRINCIPLE

Seventy-five per cent of our members have never seen conditions where vast numbers of the public absolutely could not pay for medical service and where if anything other than routine work came up it was a calamity. Far-seeing pioneers developed this budgeting program in spite of opposition from every direction. The AMA told doctors to practice medicine and leave the insurance business to insurance companies. But the insurance companies declined, saying that this service was absolutely uninsurable. That very background was the basic reason for the membership agreeing to accept the fees paid as full payment until it could be demonstrated that pre-payment would succeed.

If the non-participators succeed in reducing the lists of those who guaranteed to service the program to the point where the insurance commissioner cannot endorse the policies now offered for sale, medically controlled prepayment would go out of existence. It would go to the established insurance companies with their experience rating, with the medical profession totally excluded from determining the fees to be paid, or it would go to the already organized plan developed by labor where the doctors would be purely on a pro-rata or salary basis, very similar to the services now having so much trouble in England after ten years. If either of these groups failed, the public would demand help from the government. If large masses of our employed people were denied the benefit of pre-paid insurance, the Government would have to step in. If the labor-sponsored insurance program should meet the same conditions the English program did with complete bankruptcy and increased costs, the pressure on government would be irresistible. To protect our people, it is necessary to guarantee that health benefits can be obtained at a reasonable rate.

The groups opposing participation have made some unwarranted statements. Nobody who subscribes for the Blue Shield program will be denied payment. If the subscriber's doctor is participating, the payment will be made directly to the doctor as always. If he is a non-participating doctor or one who is assuming no responsibility for the success of the budgeting program, the payment will be made to the subscriber, and the doctor will simply have the same responsibility of collection he has always had—directly from his patient, unless an assignment is made otherwise. There is no compulsion for any member to sign the participating agreement. By not doing so, he is not put into a separate class of physicians except in his own mind. Michigan Medical Service will fulfill its promise to its subscribers and its service agreement by paying the stipulated amount directly to the doctor unless he by his own choice prefers to make his collections through the patient, in which case the same amount will be paid the patient and may be transmitted or assigned to the doctor.

It is hoped that pro-rating or reduction of benefits will never again be necessary. The new program contains a method of establishing fees which will automatically eliminate a wholesale revision. All that is needed is for interested members to work with the permanently established fee schedule committee and develop for Michigan our own relative value scale. Then a new multiplying factor can be established at any time—also individual items can be changed as the relative value changes.

"EVALUATION" OF BLUE SHIELD

A self-appointed group claiming to represent the whole profession and certain specialties, on July 14, 1958, established a "Committee for evaluation of Michigan Medical Service." The express purpose of this committee was to criticize Michigan Medical Service and to enlist whatever opposition they could to M-75, the Michigan State Medical Society's new medical care program. They adopted a set of resolutions which were published in the *Detroit Medical News* and which together with an editorial, secured rather extensive publicity in the state.

There have already been several evaluations made. One was conducted under the sponsorship of the Michigan State Medical Society and Michigan Medical Service in 1944, another was

conducted to study public opinion and attitudes by the Fact Finder's Association for Blue Cross and Blue Shield in 1951. In 1955, Michigan Hospital Service (Blue Cross) petitioned the State Insurance Commissioner for an increase in premium rates. This raised a storm of protest, particularly from labor leaders who had just conducted a "survey of adequacy of Michigan Medical Service benefits." This report was released March 19, 1956. In the meantime, the governor had appointed a "Commission" to study Michigan Hospital Service and because it was tied so closely—Michigan Medical Service. This Commission met a number of times and had extensive hearings. The Michigan State Medical Society and Michigan Medical Service co-operated completely and furnished each commissioner with a large packet of foundation material, information, reports, et cetera.

The newspapers had a holiday, starting on February 20, 1956, and continuing almost daily to August 26, 1956, with occasional reports after that date. The Commission had been asked "to find out why hospital costs were increasing and to find a method of holding costs of health service down." The Commission finally recommended a study be done by a certain named group at the University of Michigan—to occupy two years and cost $200,000. The money not being available, the Commission asked Blue Cross and Blue Shield to contribute to this study.

In the meantime, The Council of the Michigan State Medical Society appointed a committee to arrange for an unbiased study. The Kellogg Foundation offered to finance this study if the Michigan State Medical Society, Michigan Hospital Association, Michigan Medical Service, and Michigan Hospital Service could be convinced of its impartiality and would agree to accept the findings. That study is now going on.*

A Council committee headed by Dr. George W. Slagle also promptly began work. At its 1956 session, the House of Delegates also appointed a committee headed by Dr. Clarence I. Owen, at that time President-Elect of Wayne County Medical Society, with instructions that these reports be ready by August 15, 1957, for publication and distribution to the members of the House of Delegates. These committees, in their studies, determined that a special session of the House of Delegates was necessary, and this was held April 27, 1957. Definitive action was taken, an "opinion study survey" was ordered—which was to be finished before the session of the House of Delegates in September. That survey was a very extensive one involving contacts with more than 65,000 persons. It was done by the staff of Michigan State Medical Society with help from Blue Shield, Michigan Health Council, and advice from certain specialists at Michigan State University.

The three recent studies by the Slagle Committee, the Owen Committee, and the Opinion Study conducted by the Society under instructions of the House of Delegates would seem to be adequate. Extra labor, material, advice, mailing and printing cost was about $20,000. Based on this information, the House of Delegates, in September, 1957, unanimously adopted a set of principles to guide the Michigan State Medical Society, and appointed a special committee to serve with Michigan Medical Service in developing a group contract. M-75 is the result. Every feature of that contract is justified by the reports of the Slagle and Owen Committees and the Opinion Survey, using the majority reports in every instance. The contract is now accepted and approved by the Insurance Commissioner and is being sold.

Now this new self-appointed group proposes to make a study with the announced purpose of ordering the House of Delegates to change its instruction and not to sell the new M-75 contract.

At the meeting of the Executive Committee of The Council on August 20, 1958, a letter from this group was presented, demanding that the Michigan State Medical Society make available to the group all its facilities and to publicize by direct mailing to each member all the criticisms derogatory to our accepted program, to make the clerical staff available, with MSMS paying the expense. They also demanded an immediate session of the House of Delegates to reverse its decisions made last September. Further, they invited delegates from each county medical society to their meetings.

The Michigan State Medical Society, in building this new M-75 policy, carried out the instructions as unanimously expressed by the properly elected House of Delegates, representing the component county medical societies, and incidentally, the specialty groups, because their members also are House members.

*See news item from University of Michigan.

YOU AND YOUR BLUE SHIELD "SAVINGS BANK"

To understand what is happening today, it is usually necessary to recall what happened yesterday. So Dr. Russell B. Carson, President of Florida's Blue Shield Plan, reminds us that "Blue Shield was born of two parents—economic necessity and self-preservation."

Economic necessity of the patient, who needed medical care, wanted to pay for it himself and to the doctor of his own choice.
. . . *Self-preservation* for the doctor, from the bankruptcy of uncollectible bills—and from domination by the welfare state.

Dr. Carson, in his address before the 1958 National Blue Shield Professional Relations Conference, compared Blue Shield to a savings bank, in which the patient places regular deposits against the day when he needs money to pay for medical care.

From the doctor's viewpoint, Dr. Carson pointed out:

"This savings bank became an extension of our own front offices because it was maintained by our own board of trustees. We do our own collecting and disbursing without deduction of a profit and without interference from any third party telling us how, when, or to whom the disbursement should be made. We doctors had, or should have had, . . . control of these savings banks."

But if we doctors are to benefit from Blue Shield, we must take an active, responsible interest in our Plans. And if we want our patients to continue making their deposits in the Blue Shield Bank, then we must demonstrate, day after day, that both Blue Shield and its sponsoring physicians are serving, first and foremost, the welfare of our patients and the public.

The role of the doctor, says Dr. Carson, "must be that he once again become an integral, interested, co-operating part of the idea and ideals of the Plan."

AN APPRECIATION

The Editor and THE JOURNAL of the Michigan State Medical Society are again indebted to William M. LeFevre, M.D., for his aid in securing the special diabetes papers for this issue of THE JOURNAL. His assistance is much appreciated.

PARTICIPATE OR PERISH

The practicing physicians of Michigan are becoming increasingly aware of the compelling reasons and indeed necessity for participating membership in the new Employment Group Benefit Contract soon to be offered.

The medical profession has long been noted for the vigorous independence displayed by its members. The arduous years of medical schooling and residency training instill both a deep and an abiding sense of responsibility, as well as the necessity for independent judgment. When the chips are down, each physician must possess the courage to make life and death decisions.

With such a background, it is not surprising that many members of our profession are most reluctant to acknowledge the urgency of their becoming participating members of the new contract. Unanimous conformity is hard to achieve since it is contrary to the life experience of physicians.

Organized medicine in Michigan, in spite of the inherent highly individualistic nature of its members, has reached a decision. Our M.S.M.S. House of Delegates has committed us to the new Employment Group Benefit Contract. It is now incumbent upon us to become participating members. Specialty groups would be well advised not to vote as units on whether or not to participate as their members will hold this to be a matter for individual determination.

The time for bickering and acrimonious public debate has passed. While many are violently opposed to certain provisions of the new plan, they would be in a much stronger moral position to push for the changes they desire after becoming participating members.

Some disagree that the family income should be judged solely by the wages of the head of the household. Others feel there should be no distinction drawn in the manner of payment between the participating and non-participating. Large numbers believe the Technical Surgical Assistance fees to be discouragingly low. Still others hold that medical care fees are unrealistic and are not commensurate with the time and skill necessary in many medical cases.

The House of Delegates' Permanent Advisory Committee on Fees now becomes the open forum before which groups and individuals seeking changes in fee schedules should press for the correction of inequities. To alter the basic philosophy of the new plan, action must be initiated in the Michigan State Medical Society House of Delegates.

For the present the choice is clear. Every physician should become a participating member while reserving his inalienable right to seek redress, both individually and through his elected Delegates.

Refusal to participate carries the grave threat that Michigan Medical Service, and with it the private practice of medicine, may well perish.—F. P. RHOADES, M.D., *President, Michigan Academy of General Practice.*



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Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

TWO DOSES OF POLYVALENT INFLUENZA VIRUS VACCINE NECESSARY

Since all of the polyvalent vaccines that are available for vaccination against influenza contain only 200 CCA units of Asian strain (Type A) virus two doses, a month apart, are needed to insure adequate protection.

This product should be given intramuscularly. Since the dose varies with the age of the patient, be sure to consult the package literature.

FOURTH DOSE OF POLIO VACCINE NOT RECOMMENDED

A recent article by Jonas E. Salk, M.D., indicates that three doses of poliomyelitis vaccine results in an effective level of immunity against paralytic polio. Dr. Salk points out that for the present at least there are not sufficient epidemiological reasons on which to base a campaign for a fourth injection. This opinion coincides with the recommendations of the Public Health Service and the Michigan Department of Health.

Whether booster doses will be needed in the future can only be decided by the passage of time and continued study of the persistence of immunity as reflected by antibody levels among the vaccinated.

COMPLEMENT FIXATION TESTS AS AN AID IN DIAGNOSIS OF POLIOMYELITIS

The Division of Laboratories, Michigan Department of Health, is prepared to do complement fixation tests as an aid in the diagnosis of cases of poliomyelitis. Paired serum specimens taken during the acute and convalescent phases of illness are required for this type of laboratory diagnostic test.

1. *Type of specimen* (either whole blood or serum).
 - A. *When to collect:* The first blood specimen should be taken within the first five days of illness, if possible. In the case of whole blood the specimen should be mailed to the laboratory promptly, in order that serum can be removed and refrigerated. The second specimen should be taken *one month* from the date of onset of illness. It, too, should be mailed at once to the laboratory.
 - B. *Amount of each specimen:* 10 cc. (if whole blood).
 - C. *Specimen containers:* Upon request, the Division of Laboratories, Michigan Department of Health, will supply a special kit of containers and report forms for poliomyelitis serology specimens.
 - D. *Delivery of specimens to the laboratory:* Send by mail to the Division of Laboratories, Michigan Department of Health, Lansing 4, Mich.

2. *History*

A history is required for each patient for whom specimens are submitted. The history form is provided in a special poliomyelitis specimen kit.

Dr. W. W. Ferguson, Division of Laboratories, Michigan Department of Health, Lansing 4, upon request, will be pleased to give any further information regarding serologic tests for poliomyelitis and for poliomyelitis specimen kits.

All blood specimens for complement fixation tests should be sent directly to the Michigan Department of Health, Division of Laboratories, Lansing 4.

A positive complement fixation test indicates that the illness was poliomyelitis. A negative complement fixation test indicates that the illness was not poliomyelitis, but does not indicate what other enteroviruses may have been involved.

If a detailed study involving the isloation and identification of the virus or viruses that may be involved is wanted, then the acute and convalescent blood samples should be sent directly to the Virus Laboratory, School of Public Health, University of Michigan, Ann Arbor. For this type of comprehensive laboratory study, the acute phase blood *must be accompanied by an acute phase stool specimen.*

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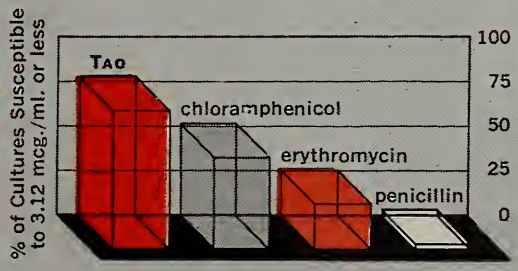
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CLINICAL RESULTS	adults	children	all Staph infections
Cured	172 (80%)	148 (89%)	71 (88%)
Improved	28 (13%)	8 (5%)	7 (9%)
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Types of infecting organisms: The majority of identified etiologic microorganisms were Staph. aureus and Staph. albus. Tao has its greatest usefulness against organisms such as: staphylococci (including strains resistant to other antibiotics), streptococci (beta-hemolytic strains, alpha-hemolytic strains and enterococci), pneumococci, gonococci, Hemophilus influenzae.

even against resistant staph[1,2] . . .

Per cent of "antibiotic-resistant" epidemic staphylococci cultures susceptible to Tao, erythromycin, penicillin and chloramphenicol.[1]



well tolerated . . .

REACTIONS:

(a) adults	(b) children
Total—9.2% (20 out of 217)	Total—0.6% (1 out of 167)
Skin rash—1.4% (3 out of 217)	Skin rash—none
Gastrointestinal—7.8% (17 out of 217)	Gastrointestinal—0.6% (1 out of 167)

There was complete freedom from adverse reactions in 94.5% of all patients. Side effects in the other 5.5% were usually mild and seldom required discontinuance of therapy.

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Supplied: Tao Capsules—250 mg. and 125 mg.; bottles of 60. Tao for Oral Suspension—1.5 Gm.; 125 mg. per teaspoonful (5 cc.) when reconstituted; unusually palatable cherry flavor; 2 oz. bottle.

References: 1. English, A. R., and Fink, F. C.: Antibiotics & Chemother. (Aug.) 1958. 2. English, A. R., and McBride, T. J.: Antibiotics & Chemother. (Aug.) 1958. 3. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy (Aug.) 1958. 4. Celmer, W. D., et al.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 476.

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In Memoriam

LEWIS J. BURCH, M.D., eighty-four, Mt. Pleasant physician for more than sixty years, died August 17, 1958.

Doctor Burch was born at Amador, Sanilac County, Michigan, and later moved to Midland. He was graduated from Wayne Medical School in 1892, and immediately set up his practice in Mt. Pleasant.

Doctor Burch for sixteen years was county physician and in charge of the county hospital, and for three years he was Mt. Pleasant health officer.

He was a fifty-year member of the Wayne Alumni Club, emeritus and sixty-year member of the Masonic Lodge, and a member of the Scottish Rite.

JAMES C. DANFORTH, M.D., seventy, Grosse Pointe physician, died August 2, 1958. Born in Minneapolis, Minnesota, he graduated from the University of Michigan Medical School in 1914. He served as physician for the Old Hudson Motor Car Company and was a staff member of Grace, Evangelical Deaconess and Holy Cross Hospitals.

Doctor Danforth's late wife was a physician as are his two sons, James C., Jr., M.D., and Robert D. Danforth, M.D.

C. M. LE GOLVAN, M.D., seventy-three, general practitioner in Marquette, died August 14, 1958.

Born in 1885, in France, Doctor Le Golvan graduated in 1911 from the University of Paris, where he received his medical degree. He came to Michigan that same year.

He was a member of the Third Degree Knights of Columbus and the St. John's Church of Marquette.

GEORGE W. LOGAN, M.D., eighty-one, of Genesee County, died July 16, 1958.

Doctor Logan was born at Jura, Canada. He was graduated from the old Saginaw Valley Medical College and completed postgraduate work at the University of Michigan and Chicago University. Before going into the medical profession, he had been a school teacher and school superintendent.

In 1923, Doctor Logan moved from Flint to Flushing, where he practiced for thirty-two years before moving to Hastings in 1955.

He was active in Boy Scout work, the Chamber of Commerce, served as health officer and was a member of the Flushing Masonic Lodge No. 223 F & A M.

WILLARD D. MAYER, M.D., sixty-eight, Detroit physician, died August 8, 1958.

Born in Norfolk, Nebraska, Doctor Mayer attended the Jefferson Medical College, Philadelphia, interned at Mt. Sinai Hospital, New York City, and took advance studies in Vienna.

He came to Detroit in 1916 and was a professor of clinical medicine at Wayne State University, on the

(Continued on Page 1462)

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1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

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WILLARD D. MAYER, M.D.

(Continued from Page 1460)

staff of Receiving Hospital and Chief of Medicine at Harper Hospital.

He was a former trustee of the Temple Beth El and a member of the Masonic order.

EARL M. McCOY, M.D., seventy-seven, Grand Ledge physician, died August 21, 1958.

Doctor McCoy was born in Grandville, Michigan, and in 1897 was graduated from the Wayne Medical School. He was a practicing physician and surgeon in Grand Rapids from 1903 to 1907 and on the staff of Blodgett Hospital. From there, he became a surgeon at the Iron Mines, Wakefield, and in 1911 moved to Grand Ledge, where he practiced until his death. He was on the medical staff at St. Lawrence Hospital, Lansing.

Among his medical achievements were: medical superintendent of the Michigan Tuberculosis Sanatorium, 1909; health officer of Grand Ledge, 1912; Captain in the Medical Corps, 1917-1918; personal physician to the late Gov. Frank D. Fitzgerald.

He was a member of the Grand Ledge Masonic Order, American Legion, past committee chairman of the Eaton County Red Cross.

ISAIAH SICOTTE, M.D., seventy-nine, Michigamme physician, died July 13, 1958.

Born in Blackbrook, N. Y., he moved to Michigan with his parents in 1885, locating near Ishpeming. He taught in country schools for two years before entering the University of Michigan Medical School, graduating in 1907.

After interning at a hospital in Toledo, Ohio, Doctor Sicotte returned to the Upper Peninsula. He took postgraduate work at the University of Bordeau and was a major in the Army during the first World War.

Doctor Sicotte was a member of the Ishpeming Knights of Columbus, St. Joseph's Parish, Lions Club and the American Legion.

Three out of four lives lost in public accidents are attributable to transport accidents, with motor vehicles far outranking all other types of transportation. . . . The bulk of these fatalities are among drivers and passengers in cars which collided with other motor vehicles, railroad trains, or fixed objects, or in cars which overturned. . . . Only one-fifth of the fatalities in motor vehicle traffic accidents were among pedestrians.

Transport accidents other than motor vehicle kill more than 4,500 people a year in the United States. . . . Water transportation and aircraft each account for approximately 1,500 deaths annually, while railway accidents take a somewhat lower toll. (*Statistical Bulletin*, Metropolitan Life Insurance Company, June, 1958).



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. NEWS MEDICAL

MICHIGAN AUTHORS

Leo J. Kenney, M.D. and **Ralph J. Schlosser, M.D.**, Grand Rapids, are the authors of an article entitled "Crushing Injuries of the Chest-Management with the Morch Respirator," published in THE JOURNAL of the Michigan State Medical Society, February, 1958, and digested in *Digest of Ophthalmology and Otolaryngology*, August, 1958.

Authors represented in a Symposium on "Cultivation of Animal Tissue Cells *in Vitro*" (Michigan Academy of Science), published in *The University of Michigan Medical Bulletin,* June, 1958, are: **Philipp Gerhardt**, Michigan Academy of Science, Arts, and Letters; **Donald J. Merchant**, Department of Bacteriology, University of Michigan; **Cyril S. Stulberg, Ph.D.**, and **Lawrence Berman, M.D.**, Child Research Center of Michigan, Detroit; **George M. Healy, B.A.**, Difco Laboratories, Detroit; **Gerald A. LoGrippo, M.D.**, Division of Microbiology, Henry Ford Hospital, Detroit; **Robert J. Kuchler, Ph.D.** and **Donald J. Merchant, Ph.D.**, Department of Bacteriology, University of Michigan Medical School, Ann Arbor; **W. Wilber Ackermann, Ph.D.**, Department of Epidemiology and Virus Laboratory, University of Michigan School of Public Health, Ann Arbor; **Wilton A. Rightsel, Ph.D.**, **John R. Dice, Ph.D.**, and **Robert Pittilo, Ph.D.**, Research Laboratories, Parke, Davis and Company, Detroit, Michigan; **Gordon C. Brown, Sc.D.** and **Donald E. Craig, Ph.D.**, Department of Epidemiology and Virus Laboratory, University of Michigan School of Public Health, Ann Arbor; and **Raymond H. Kahn, Ph.D.**, Department of Anatomy, University of Michigan Medical School, Ann Arbor.

William H. Beierwaltes, M.D., Ann Arbor, is the author of an article entitled, "Nodular Goiter: Diagnosis and Treatment with Radioactive Iodine," published in GP, August, 1958.

Glen D. Dobben, M.D., Detroit, is the author of an article entitled "Leiomyosarcoma of the Nasopharynx," published in AMA *Archives of Otolaryngology,* August, 1958.

C. S. Stulberg, R. H. Page, and **L. Berman,** Detroit, are the authors of an article entitled "Comparative Behavior of sixteen Echo Virus Types in Fibroblast-like and Epithelial-like Human Cell Strains," published in *Proceedings Society of Experimental Biology and Medicine*, 97:355-359, 1958.

Thomas Francis, Jr., Ann Arbor, is the author of an article entitled, "Immunity To Virus Diseases," published in *Modern Medicine,* July 1, 1958.

Max Karl Newman, M.D., Detroit, is the author of an article entitled "Electromyographic Observation as an aid in Clinical Diagnosis," published in *Military Medicine,* March, 1958. He is also the author of an article entitled "Physical Medicine and Rehabilitation for Hemiplegic Patients," published in *Radiology,* June, 1958.

Laurence M. Linkner, M.D. and **Clifford Benson, M.D.**, Detroit, are the authors of an article entitled "Spontaneous Perforation of the Stomach in the Newborn," an abstract of which appears in the *Harper Hospital Bulletin,* May-June, 1958. This paper was awarded first prize at the General Staff Meeting, April 11, 1958, and is to be published in its entirety elsewhere.

Larry W. Seibert, M.D., Detroit, is the author of a paper which was awarded second prize at the General Staff Meeting, April 11, 1958, entitled "Gastric Ulcer: Benign or Malignant," published in *Harper Hospital Bulletin,* May-June, 1958.

Paul Levin, M.D., Detroit, is the author of a paper awarded third prize at the General Staff Meeting, April 11, 1958, entitled "Experimental Cartilage Homografts," published in *Harper Hospital Bulletin,* May-June, 1958.

Garfield Tourney, M.D., **Jacques S. Gottlieb, M.D.**, and **Bertram D. Cohen, M.D.**, Detroit, are the authors of an article entitled "Neurosis Can Stem from Defective Cerebral Blood Vessels," published in *Radiology,* June, 1958.

James E. Lofstrom, M.D., Detroit, is the author of an article entitled "More Hope for 'Stroke' Victims," published in *Radiology,* June, 1958.

D. Emerick Szilagyi, M.D., and **Lloyd France, M.D.**, Detroit, are the authors of an article entitled "An Elastic Arterial Substitute Made of Dacron Textile Fabric," published in the *Henry Ford Hospital Bulletin,* June, 1958.

Alex P. Kelly, Jr., M.D., Detroit, is the author of an article entitled "Soft Tissue Necrosis Due to Norepinephrine Infusions," published in the *Henry Ford Hospital Bulletin,* June, 1958.

Melvin A. Block, M.D. and **Robert J. Priest, M.D.**, Detroit, are the authors of an article entitled "Severe Hyperbilirubinemia Due to Benign Obstruction of the Common Bile Duct," published in the *Henry Ford Hospital Bulletin,* June, 1958.

J. Dana Darnley, M.D., Detroit, is the author of an article entitled "Parkinsonism: Neurological Considerations," published in the *Henry Ford Hospital Bulletin,* June, 1958.

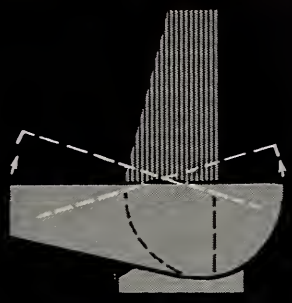
Roger F. Smith, M.D., **John G. Whitcomb, M.D.**, and **D. Emerick Szilagyi, M.D.**, Detroit, are the authors of an article entitled "Rectosigmoid Ischemia in Surgery of Abdominal Aortic Aneurysms," published in the *Henry Ford Hospital Bulletin,* June, 1958.

(Continued on Page 1468)

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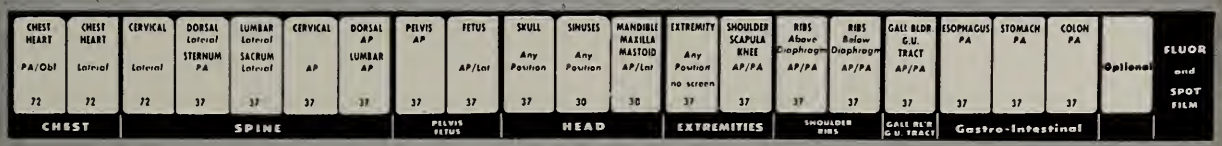


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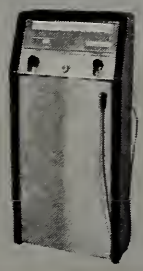
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(Continued from Page 1466)

C. J. Tupper, M.D., and **M. B. Beckett, M.D.,** Ann Arbor, are the authors of an article entitled "Faculty Health Appraisal University of Michigan," published in *Industrial Medicine and Surgery,* July, 1958.

William J. Fulton, M.D., Detroit, is the author of an article entitled "Medical Department Layout and Design," published in *Industrial Medicine and Surgery,* July, 1958.

David S. Johnson, M.D., Detroit, is the author of an article entitled "Some Observations on Divergence Excess," published in AMA *Archives of Ophthalmology,* July, 1958.

J. Reimer Wolter, M.D., Roland L. Phillips, M.D., and **Richard G. Butler, M.D.,** Ann Arbor, are the authors of an article entitled "The Star-Figure of the Macular Area" (histopathological study of a case of angiospastic (hypertensive) retinopathy) published in AMA *Archives of Ophthalmology,* July, 1958.

Frank J. Sladen, M.D., Detroit, is the author of an article entitled "Background and Purpose of the Edsel B. Ford Institute for Medical Research," published in the *Henry Ford Hospital Medical Bulletin,* March, 1958.

Joseph Bennison, M.D., Detroit, is the author of an article entitled "Common Vascular Problems of the Lower Extremities," published in the *Henry Ford Medical Bulletin,* June, 1958.

James Barron, M.D., Eduardo Camacho, M.D., Edward J. Gray, M.D., Detroit, and **Frank H. Duffy, M.D.,** Ann Arbor, are the authors of an article entitled "The Neutralization of Gastric Acid by Bile Transported through Jejunal Transplants," published in *Henry Ford Hospital Bulletin,* June, 1958.

T. Manford McGee, M.D., Detroit, is the author of an article entitled "Ototoxity in Cats Following Toxic Doses of Streptomycin," published in *Henry Ford Hospital Bulletin,* June, 1958.

E. F. Wilt, M.D., and **N. C. Brady, M.D.,** Detroit, are the authors of an article entitled "Protein Electrophoresis," published in the *Henry Ford Hospital Bulletin,* June, 1958.

James E. Coyle, M.D., Detroit, is the author of an article entitled "Analysis of Blood and Vascular Factors in the Prophylaxis of Tonsillo-Adenoidal Hemorrhage," published in *Laryngoscope,* October, 1957.

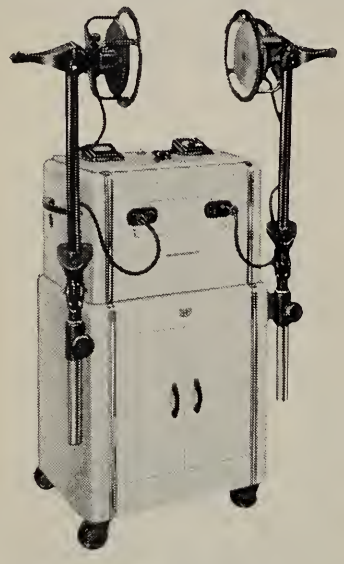
Roger F. Milnes, M.D., Rochester, N. Y., **Rients van der Woude, M.D., Herbert Sloan, M.D.,** and **Joe D. Morris, M.D.,** Ann Arbor, are the authors of an article entitled "Extended Asystole," published in the AMA *Archives of Surgery,* July, 1958.

Henry E. DeGroot, M.D. and **Jack Kaufman, M.D.,** Detroit, are the authors of an article which was awarded fourth prize at the General Staff Meeting, April 11, 1958, entitled "Amyloidosis and Myeloma—Case Report." The paper is published in *Harper Hospital Bulletin,* May-June, 1958, and an abstract is to be published elsewhere.

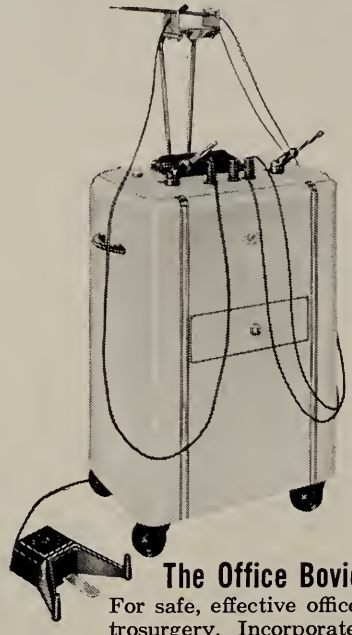
George Thosteson, M.D., Detroit, is the author of an

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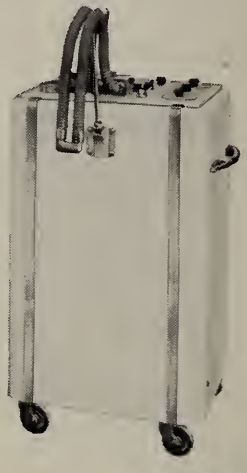
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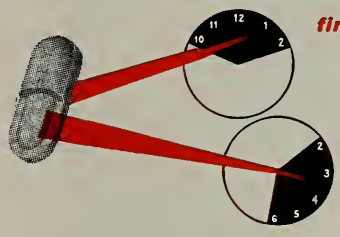
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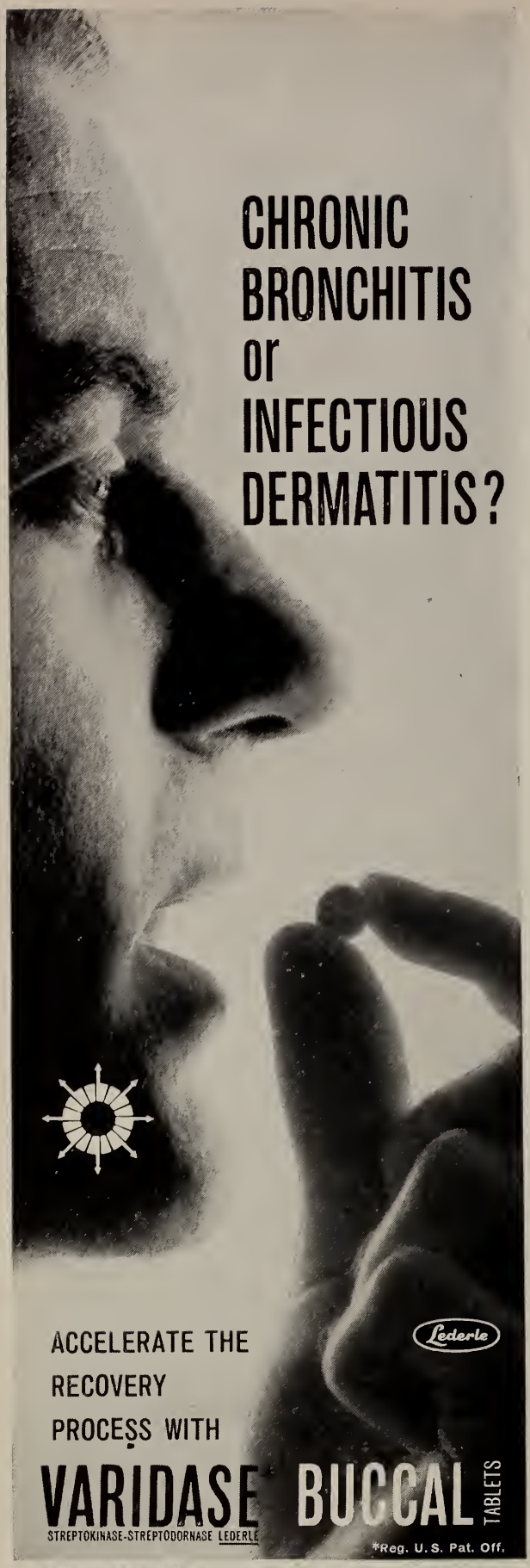
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(Continued from Page 1468)

article entitled "Cholesterol—An Enigma," read before the Detroit Academy of Medicine, December 10, 1957, and published in the *Harper Hospital Bulletin,* May-June, 1958.

Herbert Rosenbaum, M.D., Norton Cooksey, M.D., and **Henry De Groot, M.D.,** Detroit, are the authors of an article entitled "Highlights—1958 Meeting, American College of Physicians," published in the *Harper Hospital Bulletin,* May-June, 1958.

* * *

The American College of Radiology has prepared A Practical Manual on the Medical and Dental Use of X-rays with Control of Radiation Hazards, for Users of X-rays in the Healing Arts. This booklet is intended to provide accurate and practical information on the medical and dental use of x-rays with the proper control of radiologic hazards, and is being distributed to all practicing physicians.

* * *

The Office of Defense and Civilian Mobilization is the new agency formed through the consolidation of the President's Reorganization Plan No. 1 of 1958, the Federal Defense Administration and the Office of Defense Mobilization, on July 1, 1958. Governor Leo A. Hoegh of Iowa is the director and has issued new suggestions in the matter of shelter and fallout hazards.

* * *

The American College of Physicians has issued its program for the autumn and winter of 1958-1959. Seven very comprehensive courses are offered:

(1) The Physiological Basis of Internal Medicine, October 13-17, 1958
Duke University Medical Center, Durham, N. C.

(2) Selected Subjects in Internal Medicine, November 3-7, 1958
The Mayo Clinic and Mayo Foundation, Rochester, Minn.

(3) Gastro-Enterology, November 10-14. 1958
University of Michigan, Ann Arbor, Michigan

(4) Congenital Heart Disease, November 17-22, 1958
The Johns Hopkins University School of Medicine, Baltimore, Maryland

(5) Internal Medicine—Especially Therapeutics, January 12-16, 1959
University of Illinois College of Medicine, Chicago

(6) Current Research In Endocrinology, February 2, 3 and 4, 1959
National Institutes of Health, Bethesda, Md.

(7) Recent Advances in Cardiovascular Diseases. February 9-13, 1959
The Mount Sinai Hospital, New York, N. Y.

For detailed information, write to E. R. Loveland. Executive Secretary, American College of Physicians, 4200 Pine Street, Philadelphia 4, Pa. On August 23, 1958, at Jefferson Medical College, Philadelphia, M. K. Newman, M.D., Detroit, presented a dissertation and Electrodiagnosis." At the 34th annual meeting of entitled "Medical-Legal Aspects of Electromyography

(Continued on Page 1473)

(Continued from Page 1470)

the American Congress of Physical Medicine and Rehabilitation on August 27, the Bellevue Stratford Hotel, Philadelphia, he presented a paper on "Physical Medicine and Rehabilitation in Law-Science; Its Value in Personal Injury Problems and Medical-Legal Trial Techniques."

* * *

The ninth civil defense conference for County Medical Societies has been scheduled for November 8-9, 1958, at the Morrison Hotel in Chicago. This conference is sponsored by the AMA Council on National Defense. Edward G. Sharp, M.D., Philadelphia, will serve as conference chairman, and Paul S. Parrino, M.D., ODCM, Battle Creek, Michigan, is program chairman.

* * *

Results of a survey made by the Health Information Foundation in co-operation with the University of Chicago's National Opinion Research Center, were recently published in the monthly statistical bulletin, *Progress in Health Services*. About three-fourths of the family doctors surveyed were general practitioners and almost all of them were in private practice. (By contrast, less than half of the total number of members of the medical profession classify themselves as general practitioners and about three-fourths are in private practice.)

The average doctor interviewed spent about six hours a day on office calls and another two hours on house calls. Only one doctor in fourteen made no house calls, and four out of five were generally available for night and Sunday emergency calls.

Four out of five persons interviewed said they had a family physician to whom they turned regularly when they were sick.

* * *

Polio outbreaks, according to an item in the Secretary's Letter of the American Medical Association citing a report by the deputy attorney general of the USPHS, have occurred in a number of communities. For the week ending July 26, at least six states, Hawaii, and Puerto Rico, had reported more polio cases so far this year than in the corresponding period of 1957. Significant increases were noted in Florida with forty cases, Hawaii and Puerto Rico with forty-one each, and Montana with twenty-two. At the last meeting of The Council MSMS, Commissioner Heustis reported that there had only been two or three cases so far this year, but a news release from Detroit the first part of August reported some seventy cases. The AMA Secretary's Letter again urges that all persons under forty be immunized. The Council and the Health Commissioner of Michigan have urged that this age limit be forgotten and that all persons be immunized for polio.

* * *

Funds for construction of a National Medical Library Building, as recommended in several bills passed recently, now total $7,300,000, providing contracts for construction are executed on or before April 30, 1959. Funds for operation of the National Library of Medicine



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* * *

The Bell System Science Series presented its second television program devoted to the working of part of the human body in "Gateways to the Mind," the story of the human senses, over the NBC network Thursday evening, October 23.

Some fourteen different senses were discussed in explaining how the senses function as the channels through which all knowledge of the external world is passed to the brain. Both scientific documentary film and animation were used in the program. Much of this material was new to the general public.

* * *

Award of sixty-four unclassified life science research contracts in the fields of medicine, biology, environmental sciences, radiation instrumentation and special training has been announced by the U. S. Atomic Energy Commission.

Institution and Title	*Investigator*	*Amount*
Edsel B. Ford Institute for Medical Research Comparative Metabolic Effects of Certain Hormones and X-Irradiation	O. H. Gaebler	$11,500
Kresge Eye Institute, Detroit Effects of Neutrons and Other Radiations on the Ocular Lens	V. E. Kinsey	21,250
Michigan, University of, Immunological Study of Tumors	W. J. Nungester	25,000
Michigan State University I. Absorption and Utilization of Radioactive Minerals Applied to the Leaves Plants II. Absorption and Utilization of Ruthenium by Plants III. Leaching of Nutrients from Leaves of Plants	H. B. Tukey	25,000
Michigan State University An Investigation of the Ecological Factors Related to the Distribution of Algae in an Andean Transect at the Equator.	G. W. Prescott	5,589
Central Michigan College of Education A Study of the Ecology and Taxonomy of Fresh-Water Midges (Tendipedidae: Diptera) of Michigan with Special Reference to Their Role in the "Turnover" of Radioactive Substances in the Hydrosol.	L. L. Curry	12,004
Wayne State University Summer Institute on Radiology for High School Science Teachers.	A. J. Vorwald	18,375

(Continued on Page 1476)

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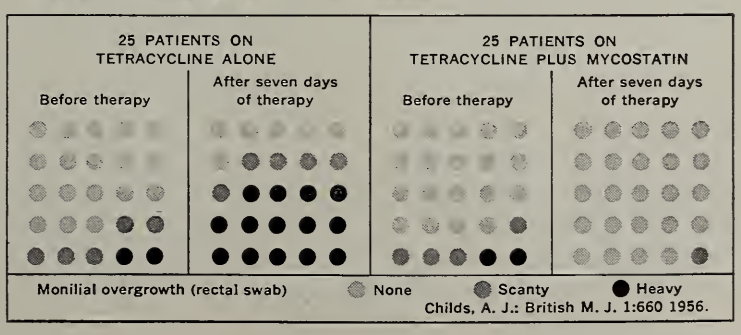
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the amazing all-cotton bandage that:

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- Center section does not stick to wound
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(Continued from Page 1474)

A cholera epidemic has broken out in Nepal. This is the first such epidemic in over fifty years to strike this Himalaya mountain nation. The World Health Organization headquarters reports supplying 25,000 doses of vaccine to help immunize the population. The cholera situation in Asia is the most serious in years. Cases and deaths are twice as numerous as last year in India and East Pakistan. Cases also have been reported in Cambodia and Burma.

Cumulative totals for 1958, as of July 31, are:

	Cases	Deaths
India	29,372	12,851
East Pakistan	10,386	6,644
Thailand	8,964	1,190
Cambodia	3	0
Burma	4	2
Total	48,729	20,687

* * *

A Regional Highway Safety Conference was held at the University of Michigan, August 6, 1958, at which the Governor reported that Michigan's traffic fatality rate had been slashed nearly 50 per cent since 1955—dropping from 7.1 to 4 fatalities per 100 million miles of travel. The three "E's" of traffic safety, engineering, education and enforcement—are credited with saving more than 1,000 lives in the state since 1955. Governor Williams said the state's new road building program should reduce this rate even further in the future. In addition, he suggested, the state might well increase appropriations for highway patrols and offer "more generous" support for high school driver education programs.

* * *

Construction of an Industrial Medicine and Hygiene Building, valued at $800,000, began August 18, at Wayne State University College of Medicine. Completion of the building will be in the early spring of 1959, according to Dr. Gordon H. Scott, dean of the College of Medicine.

Radiation studies will be conducted on two specially designed and equipped floors of the four-story building. Research to be conducted in the building will include study of atmospheric pollutants, including radioactive substances; vehicular health hazards as they may attend certain occupations.

Arthur J. Vorwald, M.D., chairman of the Department of Industrial Medicine and Hygiene said that $1,500,000 in research projects now in progress necessitates prompt completion of the new building. The research is supported by funds from the Atomic Energy Commission and the U. S. Public Health Service.

The most modern features for radiation safety control have been incorporated in the building design. A special area for electronic instrumentation will be installed thereby reducing background levels of radiation to a minimum.

A laboratory for study of exhaust fumes will be on the first floor with a special entrance for automobiles.

(Continued on Page 1478)



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(Continued from Page 1476)

Another floor will house experimental animals of varying species for a contrast study of effects of polluted and pure air.

Classes for training both undergraduate and graduate students in the radiobiologic sciences will be held in the new building.

* * *

Training in Ophthalmology.—Six additional young physicians who are just beginning their residency training in Ophthalmology have been announced as the 1958 winners of Fellowships provided by the Ophthalmology Scholarship Fund of the Guild of Prescription Opticians of American, Inc. Each Fellow will receive $1,800.00 paid in monthly stipends over the three years of residency training.

This year's Fellowship recipients and the institution in which each will serve his residency are: Rolfe A. Becker, M.D. (Seattle, Washington) University of Minnesota, Minneapolis; Norman Sanders, M.D. (Miami Beach, Florida) Jackson Memorial Hospital, Miami; Ronald Maurice Hicks Pinkerton, M.D. (Montreal) Montreal General Hospital, Montreal; Clemens A. Struve, M.D. (Galveston, Texas) University of Texas Hospitals, Galveston; Blaine S. Boyden, M.D. (Hawaii) Presbyterian Hospital, New York City; Edward F. Becker, M.D. (Lansdowne, Pennsylvania) Jefferson Medical College Hospital, Philadelphia.

This brings to seventeen the present number of recipients of Guild Fellowships.

* * *

Postgraduate Course in Reconstructive Nasal Surgery.—The department of otolaryngology of the College of Medical Evangelists and the department of otolaryngology of the University of Southern California School of Medicine, Los Angeles, jointly will present an intensive postgraduate course in "Reconstructive Surgery of the Nasal Septum and External Nasal Pyramid" at White Memorial Hospital, Los Angeles, in January, 1959.

The course will be under the guest direction of Dr. Maurice H. Cottle, professor of the department of otolaryngology, Chicago Medical School, and with the co-operation of the American Rhinologic Society. Sessions will start Tuesday evening, January 6, and continue through Friday afternoon, January 9. They will be resumed Monday, January 12, and end at noon on Friday, January 16.

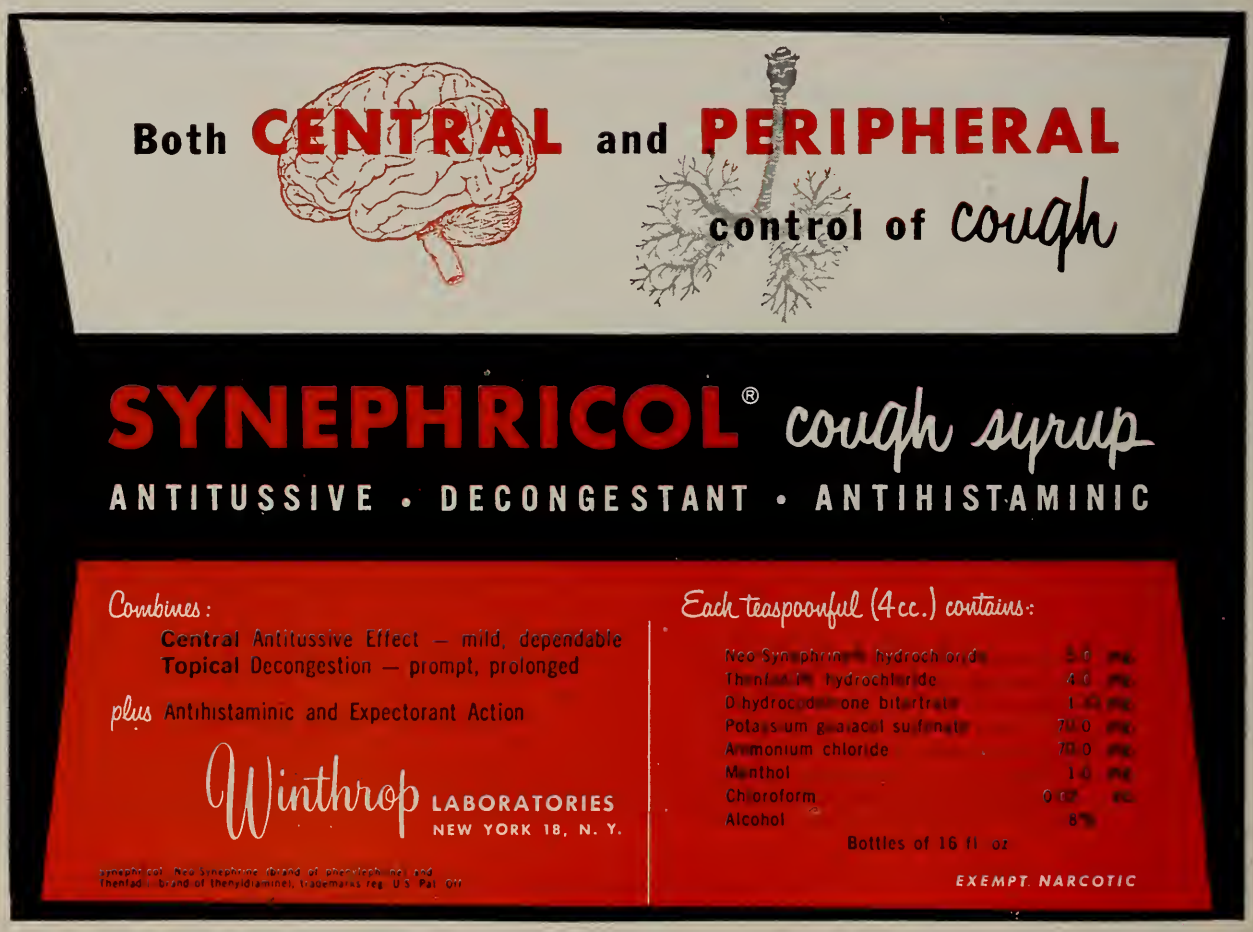
There will be lectures, surgical demonstrations, anatomical exercises, seminars, and case presentations. Special emphasis will be placed on the newer concepts of nasal anatomy, embryology, and physiology.

For further information, write Dr. Leland House, 435 South Soto Street, Los Angeles 53.

* * *

A survey of the legal profession is planned for early this fall by the Law Department of the American

(Continued on Page 1480)



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(Continued from Page 1478)

Medical Association on subjects of mutual interest to physicians and attorneys. Approximately 10,000 attorneys will be asked to respond to questions on inter-professional relations, medical professional liability, and expert medical testimony.

The need for such a study is evidenced by the fact that as high as 80 per cent of all cases tried today require medical testimony, and that seven out of ten personal injury cases are decided on medical rather than legal considerations. It is incumbent upon the medical profession to be aware of the problems of attorneys and the role of medicine in the judicial system. It is hoped that this information can be used to promote good working relations between physicians and attorneys.

* * *

Elevation of three medical scientists to professorships at Wayne State University is announced by Dr. Gordon H. Scott, Dean of the College of Medicine.

Dr. F. Gaynor Evans, Professor of Anatomy, has received high recognition for his studies on the structure and chemical composition of human bony tissue as related to its physical properties and mechanical behavior. He has contributed more than thirty publications to scientific literature and written major sections in the *Atlas of Human Anatomy, Simplified* and *Stress and Strain in Bones.* Dr. Evans graduated magna cum laude from Coe College, Cedar Rapids, Iowa, in 1931. He received his M.A. and Ph.D. degrees from Columbia University in 1932 and 1939. From 1956 to 1957, Dr. Evans spent a year in Italy as a Fulbright research scholar. He was acting editor of *Human Biology* in 1957 and 1958.

Dr. Jacob L. Chason, Professor of Neuropathology, is known for his study of brain damage as occasioned by concussion and also his research on cerebral spinal fluids. He received his B.A. and M.D. degrees from the University of Michigan in 1937 and 1940. Dr. Chason was pathologist at Wayne County General Hospital from 1948 to 1949; assistant pathologist, Veterans Administration Hospital, Dearborn, from 1949 to 1950 and pathologist and director of laboratories at the VA Hospital until 1951. He was a Fellow in Neuropathology at Mayo Clinic in 1952. Dr. Chason has authored fourteen publications for scientific journals. He joined the faculty of the College of Medicine in 1949 as Assistant Professor of Pathology.

Dr. Joseph J. Pfiffner, Professor of Physiology and Pharmacology, is internationally known for his studies on the biochemistry of vitamins and hormones. For the past twenty-one years, he has been associated with Parke, Davis and Company. He has been their Laboratory Director in bio-chemical research since 1951. Dr. Pfiffner received his B.S., M.S., and Ph.D. degrees from the State University of Iowa. His doctorate work was

(Continued on Page 1482)

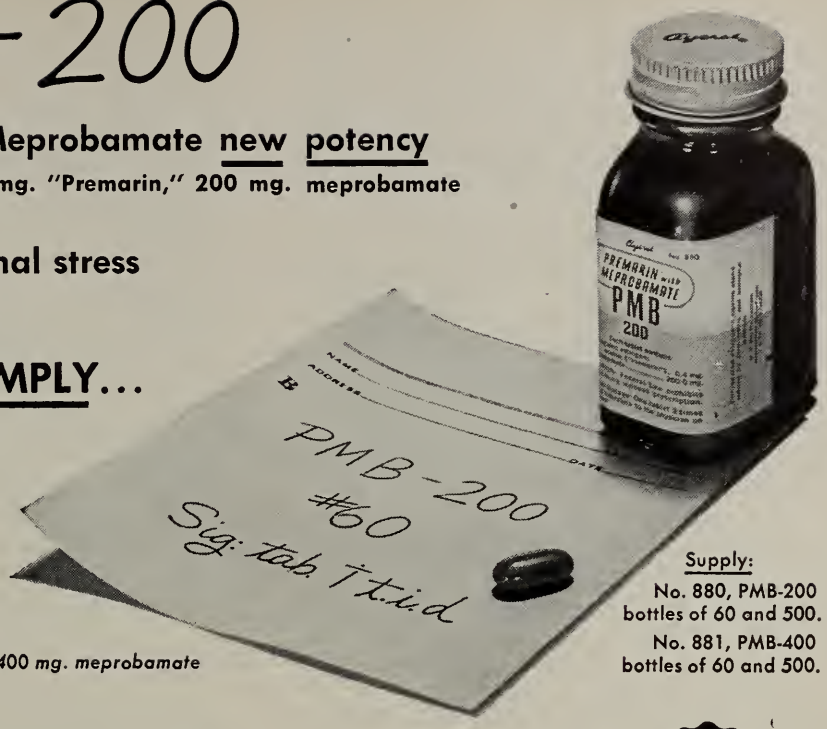
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(Continued from Page 1480)

in biochemistry with minors in pharmacology and chemistry. For ten years, Dr. Pfiffner held teaching and research appointments beginning at the State University of Iowa and then Princeton University as Assistant Professor. He was on the faculty of the College of Physicians and Surgeons, Columbia University for two years.

* * *

A five-year grant of $142,000 has been awarded the University of Michigan School of Public Health by the National Mental Health Institute, a school official has announced. Dr. Vlado A. Getting, Professor of Public Health Practice, explained that the money will be used for improving mental health teaching and research and will go partly toward hiring a full-time psychiatrist in the School of Public Health.

* * *

The International Fertility Association will hold its Third World Conference at Amsterdam June 7-13, 1959. Application forms may be obtained from the Secretariat, 4 Sint Aginietensteraat, Amsterdam, C; The Netherlands.

* * *

Changed Responsibility for Vaccines and Biotics.—One of the inconspicuous, yet important, bills that just got under the wire was S.2006. It eliminates the now obsolete requirement that Surgeons General of Army and Navy share responsibility with Surgeon General of U.S. Public Health Service in issuance of licenses for manufacturer of vaccines and other biologicals. Henceforward the authority will rest solely with USPHS and its research arm, National Institutes of Health.

* * *

Kurt Levin Memorial Award.—The University of Michigan Research Center for Group Dynamics (RCGD) has been selected to receive the Kurt Levin Memorial Award of the Society for Psychological Study of Social Issues.

The award has been presented annually since 1948 "to a person or institution whose work . . . has contributed most significantly . . . to one or more of the fields in which Kurt Levin worked." Levin was an internationally famous psychologist and humanitarian.

The center is the second institution selected to receive the award, the first being the Tavistock Institute of Human Relations in London. The prize was presented during the annual meeting of the American Psychological Association (APA) in Washington, D. C., August 28-September 3. Dorwin Cartwright, director of the Center, delivered an address September 1 in acceptance of the award.

* * *

G. H. A. Clowes, Ph.D., who had a guiding hand in making available to the world's diabetics the benefits of the great insulin discovery of Dr. Frederick Banting, died of a stroke Monday, August 25, 1958. He passed

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away at his summer home in Woods Hole, Massachusetts, just two days before his eighty-first birthday. Dr. Clowes had been director of research at Eli Lilly and Company in 1921 and 1922 when the Lilly Research Laboratories co-operated with Dr. Banting, Charles H. Best, and their associates at the University of Toronto in the purification, the stabilizing, and the testing of Insulin. The large-scale production process that was developed made possible the control and conquest of diabetes.

* * *

Interns paying little heed to Pentagon call. Danger signals are showing clearly and close for armed forces' medical officer procurement. Army, Navy and Air Force together figure they'll need 1,000 replacements next July and, in addition, they want to fill 800 residency billets. The 1958 graduating classes, whose members will complete a year's internship training next June, are the main source of supply. Approximately 5,400 of the '58 graduates have military obligations and are draft-vulnerable. Hence if one out of three volunteered and were accepted for residency deferment under the Berry plan (800) and active military duty at conclusion of internship (1,000), Pentagon's requirements would be filled.

Applicants decline 50 per cent. However, only 553 forms have been returned to date expressing interest in military commissioning for residency deferment or early active duty. This despite fact that deadline for applications is only four weeks distant (Sept. 15). The responses are 50 per cent under figure for same stage in 1957. And Defense Dept. officials note ominously that applications in mid-August of last year were only one-half of what they were on same date in 1956. As chances of being drafted dwindle, apathy to Defense Dept. inducements to young physicians has risen.

Unless there is a sharp upturn in applications in next 30 days, it would seem that armed services will be compelled to call upon Selective Service for doctor-draftees next spring. Hospitals might be hardest hit, since local draft boards prefer to put the finger on residents rather than pull doctors out of private community practice to serve.

* * *

The International College of Surgeons mid-Atlantic regional meeting, will be held at The Homstead, Hot Springs, Virginia, November 16-18, *1958*. For information write Dr. Elbyrne G. Gill, 711 Jefferson Street South, Roanoke 13, Virginia.

The twenty-fourth annual Congress of the United States and Canadian Sections will be held at the Palmer House, Chicago, September 13-17, *1959*. For information, write Dr. Ross T. McIntire, Executive Secretary, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, Illinois.

* * *

Harry M. Nelson, M.D., Detroit, Chairman of the Michigan Cancer Co-ordinating Committee and Past



President of the American Cancer Society, will address the Michigan State Dental Association at its annual session in Grand Rapids, April 22, 1959. Doctor Nelson's topic will be "Progress in Cancer Control."

* * *

The Northern Michigan Medical Society sponsored a conference on "Protecting the Health of the High School Athlete" in Petoskey on September 13. The program was set up for coaches and physical instructors.

Congratulations, Northern Michigan Medical Society, on this worthy project!

* * *

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* * *

The American College of Chest Physicians announces a postgraduate course on "Diseases of the Chest" to be held at the Park Shelton Hotel, New York City, November 1-14, 1958. Tuition for the course is $100.00. For details, write the Executive Director, 112 East Chestnut Street, Chicago 11, Illinois.

The College prize essay contest for 1959, *open to undergraduate medical students throughout the world,* is also announced. The contest, which closes April 15, 1959, offers three cash prizes for essays written on any phase of the diagnosis and treatment of chest diseases (cardiovascular or pulmonary). For further information, write the College at 112 East Chestnut Street, Chicago 11, Illinois.

Czechs Curb M.D.s—The Czechoslovak Communist Government has decreed a ban on the private practice of medicine by doctors effective January 1, 1959.—*Detroit Free Press,* August 19, 1958.

* * *

Winifred C. Shepline, for many years auditor of the Michigan State Medical Society who retired in 1946 to live in Hattiesburg, Mississippi, passed away on September 8, 1958, after two years' illness. Miss Shepline was associated with the Society for ten years, beginning in 1936.

* * *

A total of 1,806 physicians enrolled in brief refresher courses given at the University of Michigan Medical School during the 1957-58 school year, according to John M. Sheldon, M.D., Director of the Department of Postgraduate Medical Education. Most enrolees came from Michigan and attended three-day to four-day courses for intensive reviews of the special fields of medicine.

* * *

Earl Ingram Carr, M.D., Lansing, addressed the Northeastern Regional Conference, International College of Surgeons, in Boston on July 3, 1958, using as his subject, "The Surgeon's Role in Traffic Liabilities."

* * *

Harold L. Fachnie, M.D., Detroit, represented the Michigan Cancer Co-ordinating Committee in a presen-

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tation on "Cytology" before the Mt. Pleasant Community Hospital Staff on October 7, 1958.

* * *

The American Nurses' Association and several state nurses associations have received inquiries regarding the American Registry of Doctors' Nurses which has been soliciting membership through direct mail communications to doctors, nurses, and others in the health field.

The ANA states that according to all available information, it appears that the organization is a commercial enterprise which is not recognized by professional associations in the health field.

The office of the Attorney General of the State of Florida, in which state the organization has maintained a mailing address, has released an opinion that the operation of the American Registry of Doctors' Nurses was in conflict with, among other things, the law regulating the practice of nursing in Florida. The organization then announced that it intended to discontinue its operation in Florida. To date, ANA has had no reports of mailings from addresses in other states.

ANA also reports that the Certified Nurses Aides of America, a similar organization using the same mailing address, also appears to be a commercial enterprise which is not approved by any recognized nursing or hospital organization.

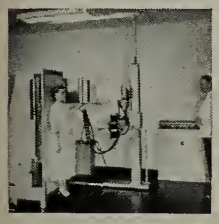
A Testimonial Dinner honoring MSMS President George W. Slagle, M.D., was sponsored by members of the Calhoun County Medical Society on Tuesday, September 9, in Battle Creek. Close to 200 doctors and their ladies attended the affair.



(Left to right) Drs. Hyland, Winslow, Slagle, Saltonstall and Foster.

Speakers of the evening included MSMS President-Elect G. B. Saltonstall, M.D., of Charlevoix; MSMS Treasurer W. A. Hyland, M.D., of Grand Rapids; MSMS Secretary L. Fernald Foster, M.D., of Detroit; and S. B. Winslow, M.D., of Battle Creek, President of the Calhoun County Society.

MSMS Public Relations Counsel H. W. Brenneman served as toastmaster. JOURNAL Editor Wilfrid Haughey, M.D., of Battle Creek, presented an illuminated scroll to Doctor Slagle on behalf of the Calhoun County Society.



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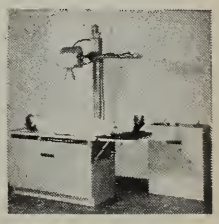
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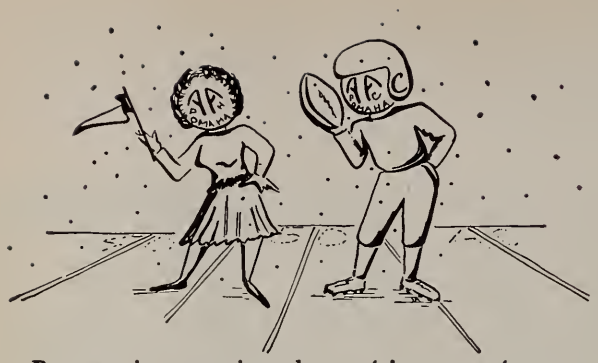
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SOCIAL SECURITY PROGRAM EXPANSION

New studies are being undertaken by the Chamber to deal with the next big pushes in the Social Security program—hospitalization and medical care for the aged. and much bigger old age cash benefits.

Legislation passed this year will cost you (and also the employe) up to $120 per employe next year and $216 by 1969 ($324 if you are self-employed) even if benefits are not increased again as usual in future election years.

One study will cover means whereby better health care can be made available to retired and other aged persons.

Efforts to branch out into a compulsory national health insurance program were contained in a bill by Rep. Forand (D.-R.I.) which was strongly pushed but failed this year. *The drive almost certainly will be resumed* even though no positive case has yet been made that aged persons are not receiving the hospital and medical care they need.

It is equally certain that legislation to increase the pensions and retirement tax of railroad workers, and to allow part of the tax to be deducted from their taxable income, will be revived. This would serve as a precedent for deductibility of social tax payments—an objective that holds grave implications for the whole federal tax system. The Chamber is endeavoring to meet this threat at its source. It has pointed out to Congress that railroad retirement benefits are tax-free, and if the money that goes into the fund is also tax-free, the railroad workers will be avoiding their fair share of the income tax burden.

Behind the pressures there lies a basic problem with which business men will soon be confronted. Shall the original concept of Social Security be preserved? Shall benefits remain a "floor of protection" to prevent want—upon which the individual can—and is expected to—build his own additional security? Or shall there be a new concept of making Social Security benefits big enough to live on comfortably? Shall government do the whole job?—Washington Report of Chamber of Commerce of U. S., September 5, 1958.

M.D. LOCATIONS

Placed by Michigan Health Council through August 31, 1958: Arthur Benetti, M.D., Wakefield; Raymond L. Sutton, M.D., East Tawas; Harvey H. Brinkman, M.D., East Tawas; Alvin J. Ratzlaff, M.D., Mt. Pleasant; Frank F. White, M.D., Goodrich; Osvaldas Nakas, M.D., Cassopolis.

Assisted by Michigan Health Council: Leo P. Lindquist, M.D., Marquette.

* * *

Medical Television Shows produced by Michigan Health Council in August, include the following:

August 3—"Reach for Tomorrow" (Film).

August 11—"Safety" (Film—"A Closed Book").

August 17—"Medical Research" (Film).

August 24—"Radioactive Diagnosis and Treatment" (Film).

August 31—"Hip Pinning" (Film).

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

BOOKS RECEIVED

CLINICAL USE OF RADIOISOTOPES. By William H. Beierwaltes, M.D., Associate Professor of Internal Medicine and Co-ordinator, Clinical Radioisotope Unit, University Hospital, Ann Arbor; Philip C. Johnson, M.D., Assistant Professor of Internal Medicine and Chief, Radioisotope Unit, Veterans Administration Hospital, University of Oklahoma Medical School, Oklahoma City; Arthur J. Solari, B.S., M.S., (Physics) Instructor in Radiation Physics, Department of Radiology, Radiation Physicist for Clinical Radioisotope Unit and Kresge Research Isotope Unit, University Hospital, Ann Arbor. Illustrated. Philadelphia and London: W. B. Saunders Company, 1957. Price, $11.50.

BCG VACCINATION AGAINST TUBERCULOSIS. By Sol Roy Rosenthal, M.D., Ph.D., Director, Institution for Tuberculosis Research of the University of Illinois; Medical Director, Research Foundation; Director, Tuberculosis Prevention Research of the Chicago Municipal Tuberculosis Sanitarium; Associate Professor, Preventive Medicine, University of Illinois College of Medicine. With Sections by Dr. Camille Guerin, Honorary Chief of Service, Institut Pasteur, Paris; Dr. Bernard Weill-Halle, Honorary Director, School of Puericulture, Member Faculty of Medicine, University of Paris; Dr. Arvid Wallgren, Professor of Pediatrics and Head of the Pediatric Clinic, Royal Caroline Institute of Medicine, Norrtull's Hospital, Stockholm. Boston and Toronto: Little, Brown and Company. Price, $7.50.

THE ATOMIC AGE AND OUR BIOLOGICAL FUTURE. H. V. Bronsted. Translated by E. M. Huggard. New York: Philosophical Library. Price, $2.75.

PRACTITIONER'S CONFERENCES Held at the New York Hospital-Cornell Medical Center. Volume 6. Edited by Claude E. Forkner, M.D., F.A.C.P. Professor of Clinical Medicine, Cornell University Medical College; Attending Physician, The New York Hospital; Consultant in Medicine (Hematology), Roosevelt Hospital; Consultant in Internal Medicine, Bronx Veterans Administration Hospital. New York: Appleton-Century-Crofts, Inc. Price. $6.75.

VEGETABLE OILS IN NUTRITION, with Special Reference to Unsaturated Fatty Acids. By Dorothy M. Rathmann, Ph.D., Multiple Fellowship of Corn Products Refining Company, Mellon Institute, Pittsburgh 13, Pa. Published by the Corn Products Refining Company, 17 Battery Place, New York 4, N. Y.

CLINICAL TOXOLOGY OF COMMERCIAL PRODUCTS. Acute Poisoning (Home and Farm). By Marion N. Gleason, Research Assistant in Pharmacology, School of Medicine and Dentistry, The University of Rochester, Rochester, New York; Robert E. Gosselin, M.D., Ph.D., Professor of Pharmacology, Dartmouth Medical School, Hanover, New Hampshire;



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1. Welsh, A. L., and Ede, M.: J.A.M.A. *166*:158, 1958.
2. Bleiberg, J.: J.M. Soc. New Jersey *53*:37, 1956.
3. Abrams, B. P., and Shaw, C.: Clin. Med. *3*:839, 1956.
4. Bleiberg, J.: Am. Practitioner *8*:1404, 1957.
5. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.

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Harold C. Hodge, Ph.D., D.Sc., Professor of Pharmacology and Toxicology, School of Medicine and Dentistry, University of Rochester, Rochester, N. Y. Baltimore: The Williams & Wilkins Co., 1957. Price, $16.00.

ALCOHOLISM. A Treatment Guide For General Practitioners. By Donald W. Hewitt, M.D. Philadelphia. Lea & Febiger, 1957. Price, $3.00.

THE STUDENT LIFE. The Philosophy of Sir William Osler. Edited by Richard E. Verney, M.B., F.R.C.P.E., D.R., Physician in Charge, Department of Student Health, University of Edinburgh, and Nurses' Health Service, the Royal Infirmary of Edinburgh. With Forewords by John Bruce, C.B.E., T.D., M.B., Ch.B., F.R.C.S. Ed., Regius Professor of Clinical Surgery, University of Edinburgh and Alec H. Macklin, O.B.E., M.C., T.D., M.D. Physician, Student Health Service, University of Aberdeen. Edinburgh and London: E. & S. Livingstone, Ltd., 1957. Price, $4.00.

MOSES BEN MAIMON (MAIMONIDES) THE PRESERVATION OF YOUTH. Essays on Health. Translated from the Original Arabic (Fi Tadbir As-Sihha), with an Introduction by Hirsch L. Gordon, M.D., Ph.D., D.H.L. New York: Philosophical Library. Price, $2.75.

THE NEW FRONTIERS OF AGEING. Edited by Wilma Donahue and Clark Tibbitts. Ann Arbor: The University of Michigan Press. Price, $5.00.

PRACTICAL ELECTROCARDIOLOGY. By Henry J. L. Marriott, M.D., Associate Professor of Medicine, University of Maryland; Chief, Electrocardiograph Department, Mercy Hospital, Baltimore. Illustrated by Marcie Ethridge Perry. Second Edition. Baltimore: The Williams and Wilkins Company, 1957. Price, $5.00.

CLINICAL ORTHOPAEDICS. Anthony De Palma, Editor-in-Chief. With the Assistance of the Associate Editors, The Board of Advisory Editors, The Board of Corresponding Editors, *Number Nine,* Spring, 1957. Philadelphia and Montreal: J. B. Lippincott Company. Price, $7.50.

CIBA FOUNDATION COLLOQUIA ON ENDOCRINOLOGY. Volume 10. Regulation and Mode of Action of Thyroid Hormones. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch. and Elaine C. P. Miller, A.H., W.C., A.R.I.C. 124 illustrations. Boston: Little, Brown & Company. Price, $8.50.

CIBA FOUNDATION SYMPOSIUM ON THE CHEMISTRY AND BIOLOGY OF PURINES. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch. and Cecilia M. O'Connor, B.Sc. 124 illustrations and structural formulae. Boston: Little, Brown and Company. Price, $9.00.

FLUID AND ELECTROLYTES IN PRACTICE. By Harry Statland, M.D., Associate in Medicine, University of Kansas School of Medicine, Chief, Division of Internal Medicine, Menorah Medical Center, Kansas City, Missouri. Second Edition, Philadelphia and Montreal: J. B. Lippincott Company. Price, $6.00.

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Inc. and Standards Committee of the American Association of Blood Banks. Inquiries concerning this publication should be addressed to: Joint Blood Council, Inc., Chairman, Scientific Committee, 1832 M. Street, N.W., Washington 6, D. C. or American Association of Blood Banks, Chairman, Standards Committee, 30 North Michigan Ave., Chicago 2, Illinois.

HOW TO LIVE WITH DIABETES. By Henry Dolger, M.D., Chief, Diabetes Clinic, Mt. Sinai Hospital, New York, and Bernard Seeman. Complimentary copy presented by The Upjohn Company, Kalamazoo, Michigan. 188 pages. New York: W. W. Norton & Company, Inc., 1958. Price, $3.50.

Dr. Dolger and his science writers have given us an intensely interesting and well-written text on "How to Live with Diabetes." They explain the theories, the actions and reactions, the treatment, the danger, the insulin shock, the diabetic coma. They detail how to anticipate these reactions by careful study and watching and knowing. They tell of the strict advisability of the family and associate understanding that the individual is diabetic that he is taking insulin or other drugs and that any untoward and unusual actions and symptoms might be a reaction from his disease condition which needs immediate attention. They picture the young child, the young adult, the middle aged, the adolescent and the older aged, with the different types of diabetes that each one has.

They stress throughout the book, the advisability and necessity of making, once or twice a day, a urine test and an acetone test, implying that if the findings are negative, the patient is doing well. They give in detail how to vary the dosage and the diet to meet changing conditions, especially for the pregnant woman who has another type of diabetes. They mention only once or twice testing the blood sugar level and do not tell what level is considered normal. They mention some special problems, but we did not find any consideration of the diabetic with high blood sugar who does not spill sugar into the urine except in cases of stress.

We thoroughly enjoyed the book. It is more than just a guide for the lay patient with diabetes.

W.H.

HEALTHFUL SCHOOL LIVING. A Report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association with the co-operation of contributors and consultants. Editor: Charles C. Wilson, M.D., Professor of Education and Public Health, Yale University. 322 pages. Chicago: National Education Association and American Medical Association, 1958. Price, $5.00.

This is the third book relating to child health that has been published co-operatviely by the above organizations. The philosophy of this book seems to be the working together of all agencies and personnel for the improvement of health practices in schools.

Chapter 1, "A concept of Healthful School Living,"

sets the tempo for the whole book. Healthful School Living cannot be separated from Health Services and Health Education. This chapter not only is a good discussion of the interrelationship of these three terms, but also points out the importance of school facilities, teaching personnel and methods, organization of the school, pupil program, community responsibility, etc., as related to the health of the child as he lives and learns at school.

Chapter 14, "Administering to Assure Healthful School Living," is a very good chapter in that it discusses many of the problems (and offers suggestions) involved in running a school system in such a manner as to make for more healthful living. Some of the items included are: Administrative Responsibilities, Suggested Policies, Budget for Health, Teamwork at Local and State Level, Working with the Volunteer Health agencies, Local Physicians, and Health Councils.

The intervening thirteen chapters are a detailed discussion of the usual factors relating to child health: Heating, Lighting, School Lunch, Safety, Water Supply, et cetera.

Appendix B, "Appraising Healthful School Living," is very good. The list of references at the end of each chapter plus Appendix C (Other Publications) adds greatly to the value of this book as a complete reference for anyone concerned with the health of the school age child.

C.H.

Communications

Dear Dr. Haughey:

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For the thirteenth year, the Association of American Physicians and Surgeons is sponsoring an Annual Essay Contest for High School Students. This is an effort, and a potent one, to inform our high school students, their teachers, and parents of America's incomparable system of free enterprise of which the private practice of medicine is an extremely important part.

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Respectfully yours,
Rose E. Herrold, M.D.
State Chairman
AAPS Essay Contest Committee

Detroit Michigan
August 26, 1958

(Excerpt from a letter to Wm. L. LeFevre, M.D., who selected the material for the Diabetes number.)

I enjoyed reading The Journal of the Michigan State Medical Society. It is an amazing publication and is the best balanced state medical journal I have seen.

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Joslin Clinic
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S. M. Finch, M.D.



Robert Hodgkinson, M.D.



Benjamin Jeffries, M.D.



Kathryn J. McMorrow, M.D.



Louis A. Schwartz, M.D.



Millington O. Young, M.D.

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Office of Publication
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Saint Paul 14, Minnesota

Editor
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All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

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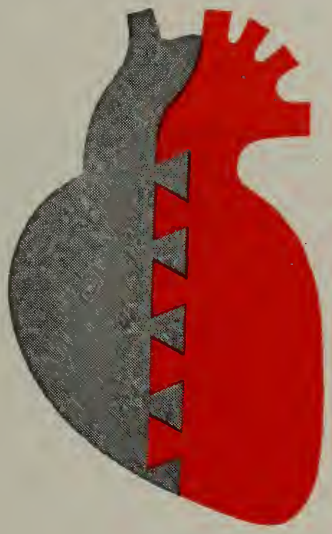
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1. *Friedlander, H. S.: The role of ataraxics in cardiology. Am. J. Card.* **1**:*395, March 1958.*
2. *Shapiro, S.: Observations on the use of meprobamate in cardiovascular disorders. Angiology* **8**:*504, Dec. 1957.*

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1959		
Jan. 28-30	Annual Meeting of the MSMS Council, Sheraton-Cadillac Hotel	Detroit
Jan. 30-31 Feb. 1	MSMS County Secretaries-Public Relations Seminar, Sheraton-Cadillac Hotel	Detroit
Feb. 11	Maternal Health Day	Flint
March 11-13	Michigan Clinical Institute, Sheraton-Cadillac Hotel	Detroit
Spring	MSMS Postgraduate Extramural Courses	Statewide
April 8-9	12th Annual Rural Health Conference	Kellogg Center, East Lansing
April	Annual Cancer Day	Flint
May 7	Ingham County Clinic Day	Lansing

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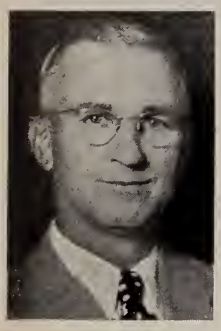
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"MCI—THE COURSE THAT REFRESHES"



W. S. Jones, M.D.

W. S. Jones, M.D., of Menominee, General Chairman of Arrangements for the 1959 Michigan Clinical Institute, announces the theme of this four-day refresher course as "The Course That Refreshes."

"The MCI program next year will continue to stress up-to-date diagnosis and treatment of practical value in everyday practice," stated Doctor Jones. "Some thirty-five eminent clinicians and teachers will present new procedures and information that will help doctors of medicine to gain useful solutions to problems presented in daily practice."

Some of the speakers invited to appear at the 1959 MCI, scheduled for the Sheraton-Cadillac Hotel, Detroit, March 10-11-12-13, are:

Allan C. Barnes, M.D., Cleveland, Ohio
Charles G. Child, III, M.D., Boston, Massachusetts
Wm. L. Estes, Jr., M.D., Bethlehem, Pennsylvania
Harry H. Gordon, M.D., Baltimore, Maryland
Governor Leo A. Hoegh, Washington, D. C.
Harry J. Loynd, Detroit, Michigan
Joe V. Meigs, M.D., Boston, Massachusetts
Karl A. Menninger, M.D., Topeka, Kansas
Aims C. McGuiness, M.D., Washington, D. C.
Isidor S. Ravdin, M.D., Philadelphia, Pennsylvania
Jonas E. Salk, M.D., Pittsburgh, Pennsylvania
James K. Stack, M.D., Chicago, Illinois

The complete program will be published in the December number of JMSMS. Members of the Program Committee, arranging this excellent postgraduate opportunity, are: W. S. Reveno, M.D., Detroit, Chairman; R. L. Mainwaring, M.D., Dearborn; J. M. Sheldon, M.D., Ann Arbor; J. M. Wellman, M.D., Lansing, and Paul de-Kruif, Ph.D., Holland, Advisor.

MSMS POSTGADUATE PROGRAM 1958-1959

The oldtime circuit-rider has a modern counterpart in a special group of physicians from Wayne State University and the University of Michigan Medical Center.

Soon these men will begin a lecture series to bring first-hand knowledge of the most recent developments in medicine to doctors throughout the state.

Touring seventeen Michigan cities, the faculty representatives will present lectures and clinical conferences for local physicians.

John M. Sheldon, M.D., director of the U-M department of postgraduate medicine, expects nearly one thousand doctors will enroll in the lecture series this year.

The program is directed by the U-M Medical Center in cooperation with the Michigan State Medical Society, the Michigan Department of Health and the College of Medicine at Wayne State University.

Major emphasis in the lectures this year will be placed on staphylococcus infections, diabetes, psychiatric techniques and tranquilizers.

Programs will be held in: *Alpena, Battle Creek, Bay City, Jackson, Lansing, Midland, Muskegon, Port Huron, Roscommon,* and *Traverse City* in the lower peninsula.

In the upper peninsula, programs will be conducted at *Escanaba, Menominee, Iron Mountain, Sault Ste. Marie, Ironwood, Houghton,* and *Marquette.*

STATEMENT OF POLICY

The World Medical Association is of the opinion that there should be closer cooperation between international organizations having the health of the people of the world as one of their objectives. The public is gravely concerned about events which may affect their health and longevity. They turn to their doctors for information on these subjects. The doctors must be kept informed of the most advanced scientific research findings in order to provide their patients with the true facts. The World Medical Association has pledged itself to continue its activity in supplying the information that the doctors of the world need "To assist all peoples of the world to attain the highest possible level of health," and "To promote world peace."

JENKINS-KEOGH BILL, H. R. 10

Statement by Senator Harry F. Byrd, Chairman, Senate Finance Committee

H. R. 10 was introduced in the House of Representatives on January 3, 1957. It was not sent over to the Senate Finance Committee until July 30, 1958.

In accordance with the procedure, it was promptly sent to the Treasury Department for comment. The report from the Treasury was not received until today.

I am unable to understand why this bill was held in the Ways and Means Committee until July 24, 1958, (one year and six months) then

(Continued on Page 1514)



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Thiamine HCl (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
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JENKINS-KEOGH BILL, H. R. 10

(Continued from Page 1512)

passed by the House on July 29, and sent over to the Senate just before adjournment of the current session.

We have hearings already set before the Senate Finance Committee for some days to come, and the Leader of the Senate has advised that beginning next week the Senate will be in session from 10 o'clock in the morning on.

This bill will be presented to the Senate Finance Committee for hearings at the earliest possible time. It is the policy of the Senate Finance Committee to have public hearings on all controversial legislation.

OFFICE OF THE SECRETARY OF THE TREASURY
Washington, D. C.

August 6, 1958

My dear Mr. Chairman:

This is in response to your request of July 31 for the views of this Department on H.R. 10, passed by the House of Representatives July 29, 1958.

In its present form, H.R. 10 would allow self-employed people to deduct amounts up to 10 per cent of their otherwise taxable income from self-employment, provided they invested such amounts in certain specified types of retirement funds, annuities and insurance contracts. There would be an annual ceiling on the deduction of $2,500 and a lifetime ceiling of $50,000. Larger annual exclusions would be allowed people who are over fifty when the bill goes into effect. The untaxed funds so invested would be taxable in full when they are withdrawn, presumably after the taxpayer reached the age of sixty-five and retired. In all cases, withdrawals would have to be started not later than the age of seventy.

The amended bill represents a substantial improvement over the prior version and largely meets technical objections to it. However, though it would allow smaller maximum tax deductions than the previous version, the amended bill would still involve a very substantial revenue loss, amounting to an estimated $365 million annually. This estimate assumes that actual deductions would be only a part of the maximum allowable, ranging from 15 per cent of the maximum for taxpayers with less than $3,000 of income to 66⅔ per cent of the maximum for those with more than $20,000 of income.

In view of the large impending deficit, which has made necessary the extension of existing tax rates on taxpayers generally, the special relief for a selected group of taxpayers contained in H.R. 10 does not appear to be justifiable.

The Treasury is concerned over the problems that self-employed people without pension coverage have in providing for their retirement needs. This question is one of great importance which poses a number of basic issues for the future formulation of our tax structure. We believe that these difficult issues can best be satisfactorily resolved under conditions when general tax reductions and basic reforms involving large tax savings can properly be considered.

While the bill before your Committee is relatively circumscribed, the revenue impact of this type of legislation would be much greater if the special tax deductions that this bill would grant to the self-employed were to be made equally available to all taxpayers. Among the taxpayers other than the self-employed who might have claims for similar legislation if H.R. 10 were adopted are: (1) employees not covered by industrial pension plans, (2) employees covered by pension plans who receive very small pensions and who would want tax relief for their own personal supplementary savings for retirement, and (3) employees under pension plans with high rates of employee contributions which are not now deductible.

The adoption of H.R. 10, in whatever limited or modified form, might well constitute a precedent resulting in more widespread adoption of this kind of special relief. If all taxpayers were allowed deductions for retirement savings up to 10 per cent of their adjusted gross income or $2,500 a year, with the maximum also raised for persons over fifty years of age, as provided in the bill, it is estimated that the revenue loss would be $3 billion a year. Again, this estimate is based on the partial degree of utilization of maximum allowances previously assumed for various income levels. There would be a substantially greater potential revenue loss if there were fuller utilization of the allowance.

It is, of course, axiomatic that the benefits of H.R. 10 would be of more importance to the higher bracket taxpayers among the eligible group, since these would be most likely to be able to make personal savings for retirement income and since their applicable tax rates would give them the greatest proportionate tax reduction for such savings as qualified for the deduction.

The cost of such selective relief may be appraised in relation to the fact that a ceiling of 60 per cent could be imposed on individual income tax rates at a considerably smaller revenue loss than would result under the proposal. A 55 per cent ceiling could be adopted on individual income tax rates for only a moderately greater revenue decrease than under H.R. 10.

The selective relief adopted under H.R. 10 would pre-empt amounts otherwise available for more general rate reduction and structural reforms. It would seem especially inappropriate to follow such an approach at a time when general tax relief and reform have had to be postponed.

Under the circumstances, the Department is opposed to the enactment of H.R. 10.

The Bureau of the Budget has advised the Treasury Department that there is no objection to the presentation of this report.

Sincerely yours,
DAN THROOP SMITH
Deputy to the Secretary

Honorable Harry F. Byrd
Chairman, Committee on Finance
United States Senate
Washington 25, D. C.

(Continued on Page 1522)



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(Continued from Page 1514)

SOCIAL SECURITY PAYMENTS STILL RUNNING AHEAD OF RECEIPTS

The Budget Bureau, in its annual midyear review of the federal budget, revives upward from last January the OASI and disability payments being made. OASI receipts for the last year are now estimated at $8.35 billion compared with payments of $9.49 billion. One reason for the rise is a payment of over $300 million to the railroad retirement account to help equalize the actuarial risk of the two systems. Disability payments, on the other hand, continue below receipts—$418 million compared with $957 million estimated to be taken in this year.

The Bureau said that for the rest of this fiscal year receipts and expenditures under social security amendments voted this summer will be about the same. With a further increase in tax rates scheduled for January 1, 1960, the fund should again start accumulating receipts by the end of fiscal 1960.—*AMA Washington Letter*

CANCER RESEARCH

The long-sought break-through in cancer research will probably come from the laboratory of some youthful scientist who is not afraid to pursue a seemingly "foolish" line of investigation.

This prospect was raised by Dr. John J. Bittner, director of the Division of Cancer Biology at the University of Minnesota, at the start of the fifth annual Cancer Retreat of The University of Michigan, held in a secluded lodge near Baldwin, Sept. 19-21.

"Too many of the older researchers are too cut and dried in their work today," Dr. Bittner commented. "We are reluctant to try anything which no one has tried before.

"By sticking to our sophisticated programs, we are failing to make the progress we desire, so we must now begin to test more imaginative ideas even though they seem foolish to us at the moment. Major developments could be made by young researchers—under age thirty—who are not strapped by conservative ideas."

Twenty-three University of Michigan faculty men—doctors and specialists—met with four nationally prominent guest speakers. In an atmosphere of informality and free discussion, they are exploring fundamental needs in cancer research.

Dr. Burton L. Baker of the University of Michigan Medical Center listed some of the most vexing problems facing cancer researchers today. They include:

1. The need to determine the cancer-producing effect of things we eat, including food preservatives and food additives.

2. The need to discover faster laboratory methods for testing cancer-causing substances.

3. The need to unravel the mysteries behind the spread of cancer from one body cell to another.

4. The need to bring scientists into the field of cancer research at an earlier age.

Co-chairmen of the program were Jere M. Bauer, M.D., Howard B. Latourette, M.D., of the University of Michigan Medical Center.

INTERN AND RESIDENT TRAINING AFFILIATION

Eighteen hospitals in fourteen communities throughout Lower Michigan are now affiliated with The University of Michigan Medical Center in an exchange program for the advanced training of interns and resident physicians.

New doctors after graduation from medical school must spend one year of training in a hospital as interns. Those who wish to specialize spend an additional year or more in training as residents.

Through the University of Michigan exchange program, the University gains outlets for training its interns and residents and the affiliated hospitals can send their trainees to the University of Michigan Medical Center for special study.

John M. Sheldon, M.D., professor of internal medicine and director of the University of Michigan Department of Postgraduate Medicine, described the four-part program now in effect:

1. A program which permits residents from the affiliated hospitals studying internal medicine, surgery, or obstetrics and gynecology to spend their three-year terms at the University of Michigan Medical Center. This includes a nine-month course in the basic sciences preparatory to the state board examinations.

2. A visiting program under which University staff members visit each affiliated hospital six or more times a year to examine and evaluate the training programs. In addition, a conference is held at the University of Michigan once a year so the educational committees from the affiliated hospitals may meet with University of Michigan staff members to coordinate and strengthen their program.

3. A program for training in general practice which provides annually for about ten internships of two years each. These interns spend alternating six-month periods at the University of Michigan and at the affiliated hospital.

4. A program for student experience in general practice which permits senior medical students to spend their vacation period working in affiliated hospitals. University of Michigan faculty members visit the hospitals participating in this program about twelve times each year.

(Continued on Page 1524)



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INTERN AND RESIDENT TRAINING AFFILIATION

(Continued from Page 1522)

Dr. Sheldon said both the University and the affiliated hospitals benefit from such an exchange. The program provides additional training and experience for all residents and interns concerned and the supervision of the University coordinates and enhances the training programs of the affiliated hospitals.

The hospitals affiliated in this postgraduate medicine program are:

Residency and Visiting Programs.—Ann Arbor: St. Joseph's Mercy Hospital. *Battle Creek:* Leila Y. Post Montgomery Hospital. *Detroit:* Mount Carmel Mercy Hospital and St. Joseph Mercy Hospital. *Flint:* Hurley Hospital and McLaren General Hospital. *Grand Rapids:* Blodgett Memorial Hospital, Butterworth Hospital, and St. Mary's Hospital. *Kalamazoo:* Bronson Methodist Hospital. *Lansing:* St. Lawrence Hospital. *Pontiac:* Pontiac General Hospital. *Saginaw:* Saginaw General Hospital.

Training Program for General Practice.—Benton Harbor: Mercy Hospital. *Midland:* Midland Hospital. *Traverse City:* James Decker Munson Hospital.

Program for Student Experience in General Practice. — Adrian: Emma L. Bixby Hospital. *Owosso:* Memorial Hospital.

WMA ASSEMBLY REAFFIRMS PRINCIPLES OF MEDICAL CARE

The World Medical Association recognizes and supports only those medical care systems provided by Social Security that are approved by the national medical association of the country in which that system operates. In 1948, the Association adopted twelve principles to govern Social Security plans that include medical care. Governments and Social Security organizations frequently develop and try to impose medical care plans that violate these principles and therefore are not acceptable to the medical profession of the country.

Violations Reported. — The Twelfth General Assembly meeting in Copenhagen, Denmark, in August, 1958, received reports on medical care plans developing under Social Security systems in Italy, Japan and Peru to which the national medical association in each of these countries could not subscribe since these plans violated the principles governing:

. . . Free choice of doctor
. . . Freedom to prescribe medication and type of treatment
. . . Professional secrecy
. . . Professional autonomy and liberty

Principles Reaffirmed. — The Assembly reaffirmed its firm belief that whenever medical care is provided as part of the Social Security system provisions must be made to provide:

. . . Free choice of doctor by the patient
. . . No intervention of a third party between the doctor and patient
. . . No restriction of medication or mode of treatment by the doctor
. . . That there shall be no exploitation of the doctor, the doctor's services or the public by any person or organization.

The Twelfth General Assembly supported the complainant member associations for refusing to accept the plans of medical care services under Social Security plans that violated these, or any other of the twelve principles governing medical care.

1959 Meeting Schedule.—The World Medical Association announces the following schedule of meetings for 1959:

Thirty-Fifth Council Session
Sydney, Australia
March 25 to April 4, 1959
Second World Conference on Medical Education
Chicago, Illinois
August 30-September 4, 1959
(Theme: Medicine—A Lifelong Study)
Thirteenth General Assembly
Montreal, Canada
September 7-12, 1959

Additional information on these meetings available from:

The World Medical Association
10 Columbus Circle
New York 19, New York

In Lansing

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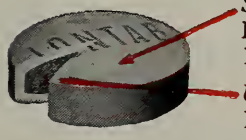
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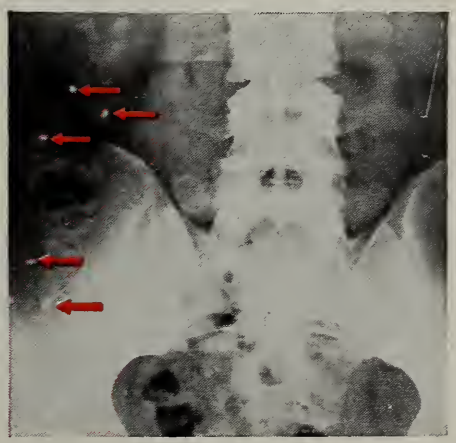
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PR REPORT

MEDICAL EQUIPMENT EXHIBITED AT SAGINAW COUNTY FAIR

The Saginaw County Medical Society recently developed, assisted by the Michigan State Medical Society, a public relations exhibit for use at the Saginaw County Fair, September 7-13. Ten



Inspecting the exhibit at the Saginaw County Fair sponsored by the County Medical Society and MSMS are *(left to right)* E. C. Galsterer, M.D. and Frank J. Busch, M.D. Demonstrating EKG equipment on David Busch is Ken Grimes of Randolph Surgical Supply Company.

thousand dollars worth of valuable physician's office equipment was borrowed from the Randolph Surgical Supply Company of Detroit and a simulated doctor's office was set up on the fairgrounds.

The instruments and equipment demonstrated to the public included an EKG machine, a basal metabolism respirator, an ophthalmoscope and an assortment of physician's examination instruments. X-ray view boxes, supplied by the Detroit X-Ray Company, were used to compare normal pictures with those of a cancerous stomach, an ulcerated stomach, a cancerous colon and lung.

A bronchoscope was displayed in conjunction with an exhibit of objects which had been removed from lungs and air passages of Saginaw area patients.

The viewing public asked many questions which were answered by doctors of medicine and medical assistants who helped in the exhibit. Members of the Woman's Auxiliary acted as hostesses, passing out literature, answering questions and inviting the public to walk through the exhibit.

Fair officials, who conducted an informal survey, stated that the medical society exhibit was the most attended and created the largest interest of any exhibit at the fair.

The week of the fair was proclaimed "Family Doctor Week" by the mayor of Saginaw.

PRESS HAILS USE OF ARTIFICIAL KIDNEY

The purchase of an artificial kidney by Bay City's Mercy Hospital clinical laboratories, operated by W. G. Gamble, Jr., M.D., received much publicity in the out-state press. Newspapers hailed the acquisition as a trend to bring latest scientific apparatus and material to areas other than Detroit and Ann Arbor medical centers.

The kidney was used in an effort to save the life of a crash victim.

AMA 1958 PR INSTITUTE

Is medicine aware of the changing events and shifting philosophies on the American scene? Is the profession adapting its activities to changing concepts and changing needs?

To answer these questions medical society representatives recently called upon four "experts," representing business, the insurance industry, labor and politics to air their views. An entire morning at the AMA's 1958 PR Institute was devoted to a give-and-take discussion of the problems in each of these important segments of American life to gain greater insight and understanding.

Chairman Hugh W. Brenneman, public relations counsel for the Michigan State Medical Society, set the stage for the discussion by asking each expert to discuss the most significant changes taking place in his field and explain how they relate to medicine.

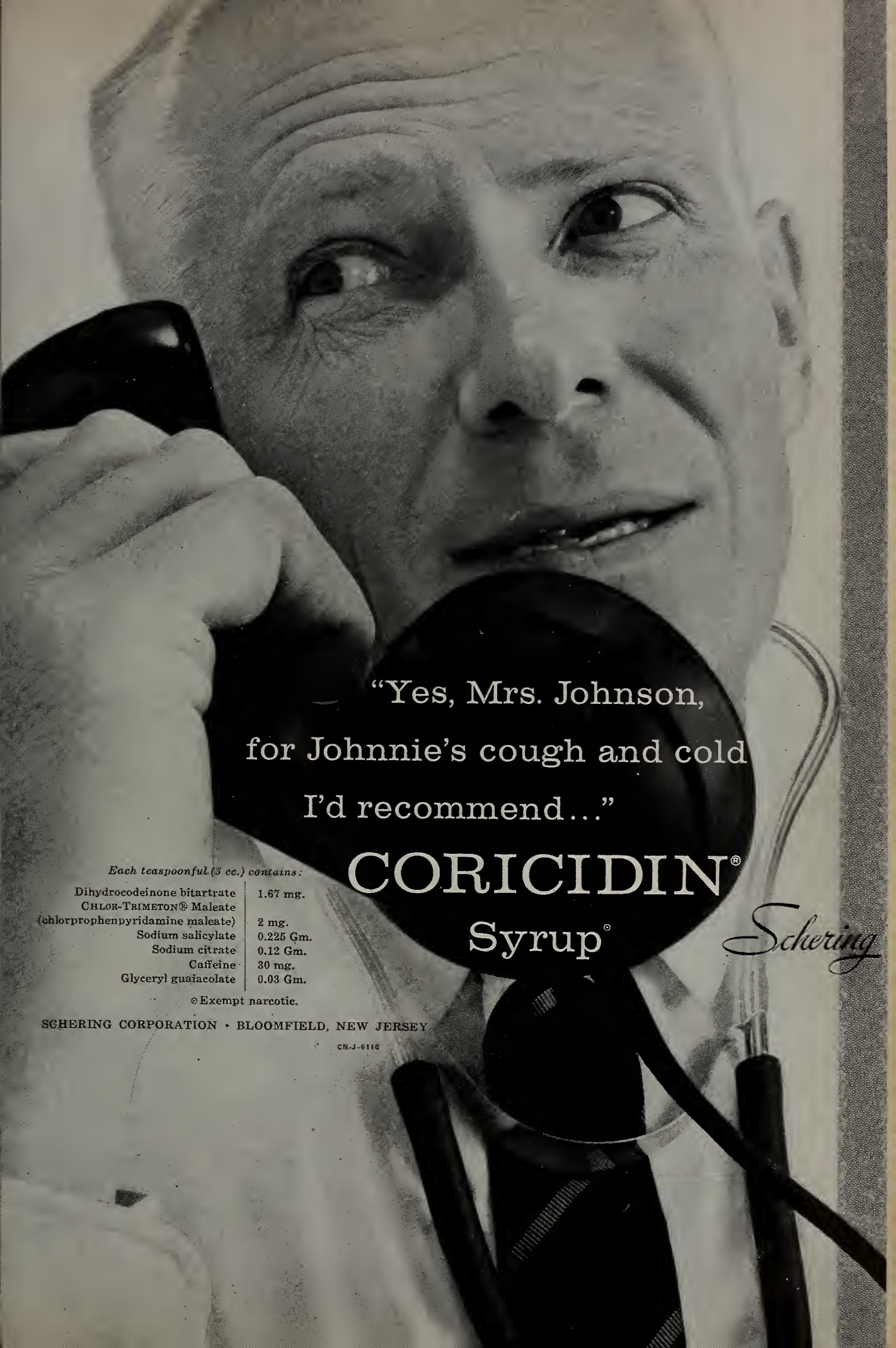
The two major problems facing the insurance industry are extension of coverage to senior citizens and the rising cost of health insurance, according to Morton Miller, New York, chairman of the Health Insurance Council.

Miller cited great gains in insurance coverage so that today 123,000,000 people—seven out of ten persons—have some protection. Americans have a wide range of coverages from which to choose, he said, but pointed out that ultimately the government may have to help those who are unable or unwilling to allocate enough of their funds for health benefits after retirement.

"The real challenge here is to find a way of doing so which will cause a minimum of disturbance to our fine system of private medical care and voluntary medical or health insurance," Miller said.

Leo Perlis, New York, director of community services activities for the AFL-CIO, said that changes in the science and practice of medicine as well as more health education resulting in a more health-conscious public, has created many medical economic problems. Other factors contributing to

(Continued on Page 1528)



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"Simpli-Trol" Portable Model Electrocardiograph

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AMA 1958 PR INSTITUTE

(Continued from Page 1526)

these problems are the growth of collective bargaining and the extension of trade unionism, the acceptance of responsibility for the workers beyond the plant gates by both labor and industry, population increases, moves to the suburbs, automation and added leisure time.

Perlis said that even though tremendous gains have been made in extending insurance coverage, labor is not yet satisfied with what has been accomplished. Labor will not be satisfied until there is greater coverage with more benefits and action.

"The need for continuing, constant experimentation in the economic laboratories exists if we are going to make voluntary plans work. We need experimentation on plans not only to provide medical and surgical care in hospitals but home care, dental care, psychiatric care and nursing care," Perlis concluded.

The Hon. Thomas B. Curtis, congressman from the second Missouri congressional district, cited three basic economic factors in American life today—suburbanization, an economy of plenty, and a fast-growing population.

Our increased cost of living, Curtis said, in many cases indicates an increase in the quality and standard of living. Among these increases are better medical care and longer life.

"People get an awful lot more for one dollar of medical and hospital care today than they ever got before," Curtis said. "I think one reason hospital costs are going up and have gone up is that the patient now comes out on his own two feet, instead of in a coffin—and his hospital stay is less because of it."

Years of added life, according to the congressman, is levying a tax of inflation on America's older citizens, creating an economic problem. One solution to reduce this problem he suggested was to build modern nursing homes which can care for the aged at a reduced rate.

Jules W. Lederer, Chicago, president of the Autopoint Company, told the audience that public relations is a selling proposition based upon listening and communicating.

Lederer agreed with Perlis that there will be increased participation of government in medical care provision and that the medical profession should do a better public relations job of telling the advantages of our voluntary system and pointing the way for the future.

MICROCLIPS

About one doctor in ten thinks the American Medical Association needs no improvement—that it's satisfactory as it is.—*J. Med. Soc. New Jersey*, 55:77, 1958.

Fred J. Drolett Named Michigan's Foremost Family Physician

Doctor Fred Drolett of Lansing is a medical doctor who began his service to humanity during the horse and buggy days and continues in this electronic age. Seventy-nine years young, Doctor Drolett is the proud example of the physician who has endeared himself to his colleagues, friends and patients.

In 1957, Dr. Drolett received the Lansing Lodge of Elks' Outstanding Citizen Award for fifty years of devoted service to the community as a doctor of medicine. In that same year, he also received the Fifty Year Award of the Michigan State Medical Society. On his birthday this past January he celebrated his 35th anniversary of the day he placed his shingle on the door of the office where he now practices.

Still very active, he makes his hospital rounds daily and, in fact, delivered the first baby born in Lansing in 1958 at 12:01 a.m., January 1.

During a long and distinguished medical career in Lansing, he has delivered more than 6,000 babies. He has served as Chief of Staff, as well as Chief of Obstetrics at St. Lawrence Hospital, and as Chief of Obstetrics at Sparrow Hospital. In 1941 he served as President of Ingham County

Dr. Drolett graduated from the Detroit College of Medicine in 1907. His two sons, Lawrence and Donald, are both practicing doctors of medicine in Lansing and a daughter, Dorothy, is a registered nurse.

William Osler once said, "The happiest and most useful lot given to man is to become a vigorous, whole-souled, intelligent General Practioner." Dr. Fred J. Drolett would wholeheartedly agree.

In an interview reported by *The Detroit Free Press,* Dr. Drolett said, "It's been a lot of fun and there is no profession like it in the whole world."



Fred J. Drolett, M.D.

Helping to make it "a lot of fun" is Dr. Drolett's own recipe for a long and active life.

"I smoke five cigars a day," he said. "And," he added, patting his stomach, "I eat what I please."

THE COUNTRY DOCTOR

Nestled among the hills of old Thunder Bay
Lived the country doctor, on call night or day;
To him rich or poor, were all alike,
To reach them, he would if he had to use his bike;
Neither cold wintry winds, nor chill of the night,
Were any hazard to him, in doing the right;
For his practice he lived . . . his labor of love,
Most of his patients he saved, but some went above.

The country doctor, "May God bless his soul,"
Dedicated his whole life, to reach one goal;
For lives to save, was his only thought,
And money no object, as he could not be bought;
Neither fee nor fame was ever a lure
In doing his duty to the rich or the poor;
All the monument he seeks, after leaving this world,
Is a count of the babes he brought into the world.

Though the snow drifts were high, and the going was rough,
When duty called him, he was mighty and tough;
He would hitch his two geldings to his trusty sleigh,
And make all his rounds in old Thunder Bay;
When his life on earth eventually came to an end,
"It was good old doc," . . . affectionately known to men;
Another good doctor would now take his place,
But, to his countrymen, "Old Doc" was still their ace.

—By Fred V. Hayford, M.D. Depicting practice at the turn of the century in rural Michigan.

Medicolegal Forms

Following are two additional simple forms selected by MSMS Legal Counsel from "Medicolegal Forms with Legal Analysis" prepared and published by the Law Department of the American Medical Association.

These forms are illustrative of those that the careful doctor will use in order to guard against liability for "invasion of the patient's right to privacy." These forms are offered with the usual reminder from Legal Counsel that standard printed forms should never be used indiscriminately nor relied upon blindly. In case of doubt—consult your lawyer.

AUTHORITY TO ADMIT OBSERVERS

PATIENT'S NAME _____ AGE _____ DATE _____

I hereby grant authority to Dr. _____ and to

_____ Hospital to permit the presence of such observers as they may deem fit to admit in addition to physicians and hospital personnel, while I am undergoing (operative surgery) (childbirth), examination, and treatment.

Signed _____

Witness _____

CONSENT TO TAKING OF PHOTOGRAPHS

In connection with the medical services which I am receiving from Dr. _____, I consent that photographs may be taken of me or parts of my body, under the following conditions: (1) The photographs may be taken only with the consent of my physician or surgeon and under such conditions and at such times as may be approved by him. (2) The photographs shall be taken by my physician or by a competent photographer, approved by my physician. (3) These photographs shall be used for medical records only, unless, in the judgment of my physician, medical research, education, or science will be benefited by their use. In that event I agree that they may be used for such purposes, provided that my identity is not revealed by the photographs or by descriptive texts accompanying them.

_____ M.D.

(Patient)

Witness

(Parent or Legal Guardian)

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General Practice and Psychiatry

By Benjamin Jeffries, M.D.
Detroit, Michigan

INCREASED communications and a closer relationship between general practice and psychiatry are goals for which we have been striving for a long time.

There have been difficulties in the past. You, in general practice, have been limited because of lack of organization and we, in psychiatry, have been limited because of pressing problems in a rapidly developing field. These factors are largely behind us now and we can really look forward to the fulfillment of our wishes and speculations.

Until now, contacts among psychiatrists have been primarily through medical journals and papers presented at medical meetings. These, at best, are second-hand and difficult for us to utilize in our day-to-day practice. We are now ready for the next step, namely, bringing the scientific concepts of psychiatry closer to the general practitioner. As it were—bringing psychiatry out of the clouds and down to earth. In recognition of this, the American Psychiatric Association and the American Academy of General Practice appointed a Liaison Committee in 1956.

The importance of this committee should be emphasized. It gives us the necessary leadership for the planning and action at the local level.

The basic premise of this liaison is the need for closer co-operation between psychiatrist and general practitioner, inasmuch as the generalist sees the sick person first. From this follows an urgent need to increase the general physician's psychiatric orientation and acumen, so that he may differentiate the mental illnesses and the mental aspect of physical illnesses.

The committee issued a report in the past year which summarizes the objectives of psychiatry and general practice and makes broad recommendations for action. The committee suggests the following specific areas for emphasis:

1. The development of more effective tools to handle the mental illnesses in practice.
2. The effective use of drugs—particularly the newer tranquilizing drugs.
3. The differentiation and prompt referral of those patients who need specific or intensive psychiatric care.

Another objective of the committee is to devise educational opportunities in the field of psychiatry for the physician in, or entering, general practice. The report recommends that to reach these objectives, it is necessary that educational programs be organized suitable to the needs of the general physician. It is suggested that a variety of approaches to the problem be made from the medical school through the postgraduate level.

In a recent newsletter of the American Psychiatric Association, the Liaison committee requests that it be informed about any plans for psychiatric programs for general practitioners.

Presented at the annual session of the Michigan State Medical Society, Grand Rapids, September 26, 1957.

They suggest that these plans be submitted for approval for credit to the American Academy of General Practice.

It is the hope of the committee that there will be greater participation by the general practitioner in community mental health planning and activity.

It is the aim of psychiatry to help the general practitioner who is now doing a good job, to do a better job. You are already handling the bulk of mental illness, whether you realize it or not. Inasmuch as we well know that a substantial percentage of your patients show neurotic illness either primarily or secondarily.

This reminds me of my work at Herman Kiefer Hospital where sometimes we wonder if we are operating a psychiatric service in a tuberculosis hospital, or, a tuberculosis division in a psychiatric hospital.

The area of greatest interest to both of us is *"What to do about those who are showing neurotic disturbances either solely or in combination with physical illness?"* The *"What to do"* very often really means, *"Are we doing the right thing?"*

The answers to these questions lie in the understanding of the dynamics of the personalities of our patients through demonstration. This, of course, means teaching and training. I feel that we must move along two basic fronts—one at the university teaching level, and, the other in the doctor's workshop—the hospital.

At the present time, our teaching centers are already developing programs, not only for interns and residents but also for psychiatrists and general practitioners. This development will continue and it needs encouragement from all of us.

The least developed and the most fruitful, I believe, is the teaching program in our hospitals. There is no question in my mind that an effective psychiatric program can be established in any hospital, if members of the staff indicate their desire. The type of program can be tailored to the specific needs of the physicians.

The program that I have in mind for a particular hospital would be a variation of the case study seminar. This technique provides familiar clinical material in a familiar setting, at a pace suitable to the group.

There are two major variations:

1. The presentation of patients who, after diagnostic work-up, present problems either diagnostically or therapeutically.

These problems would be studied and the emotional factors related to the presenting symptoms. The progress of treatment would be periodically reviewed and evaluated.

This program would give a greater variety of problems per unit time, which I have found to be extremely useful to physicians not primarily interested in psychiatry.

2. The second format would be the presentation of a referred patient whose history, diagnostic study and treatment would be studied in detail over a period of months.

This is a more intensive study plan which is used in pyschiatry and probably would not be of interest to the generalist.

Both techniques are patient-illness oriented and are studied from the standpoint of psychopathology and physiology, which is a classical medical teaching technique. Because of our personal involvement in such study seminars, we gain a great deal more understanding and feeling concerning the psycho-dynamics and treatment of mental illness.

An important aspect of the psychiatric programs we have been discussing, is the public health or community health implications.

The general practitioner with a knowledge of psychopathology, psychodynamics, therapy and epidemiology of the mental illnesses is in an excellent position to play a major role in our "Number One Public Health Problem."

Our responsibility in public health is traditional. Although our major role is that of dealing with disease, we all have the goal and objective of increasing the health potentialities and the prevention of illness in our patients and the community.

During the past ten years there has been a tremendous increase in interest and knowledge of mental illness on the part of the public. The public is more accepting of psychiatric concepts thus enhancing our opportunities for work in mental health and mental hygiene.

At times, I have been informed that physicians are disinterested and poorly equipped to work in these fields. I do not accept this. My experience has been that physicians are the best equipped to deal with health problems of the individual

(Continued on Page 1563)

Application of Psychosomatic Concepts by a Liaison Psychiatrist on a Medical Service

By Louis A. Schwartz, M.D.
Detroit, Michigan

THIS PAPER concerns the application of psychosomatic concepts by a liaison psychiatrist working on the medical wards of the University of Michigan Hospital during approximately the past two years. The purpose is to illustrate how patients on the medical service can be approached by the liaison psychiatrist enabling greater opportunity for understanding during the course of routine medical rounds and then interviewed individually for longer periods for subsequent presentation to the senior students, residents, and attending staff members.

First: *How does the liaison psychiatrist help the students, interns and residents working in small medical sections?* This is done by sharing with them the day-to-day observations of individual patients suffering from psychosomatic and other disorders. Thus they can learn in a thoughtful manner the concept of man as an organismal unit with whom the patient-physician relationship can be better appreciated in its dynamic implications. This experience can give the young physician poise and increased self-confidence in understanding the profound need of the psyche to deny the presence of organic illness, especially if it is serious. These denials can take varied forms as in dreams, hysterical symptoms or euphoria, providing a false sense of well-being. The prodromata of serious illness can be demonstrated by [21] "psychological disintegration which can become a sensitive indicator of something having gone wrong systematically." A physician managing a case of severe illness may become anxious himself when the patient does not respond to his resourcefulness, which in turn may be transferred to the patient.

Students,[6,12,14] in general, enter medical schools with idealism and humanitarian ambitions. After intensive laboratory courses followed by two years of concentration on clinical specialties, the intern and resident may have lost their ability to see man as a whole and can conceive of him only in terms of separate parts. The liaison psychiatrist does much for the morale and training of residents regardless of the branch of medicine in which they might be interested, because he helps them to develop skills in dealing with people.

During this phase of training, the resident, intern and student can be reminded of the responsibility for the total welfare of the patient and to learn to utilize the constructive values of community resources, social services and the significant contribution of clinical psychology. They[3,5] can learn about handling concomitant emotional factors such as anxiety, hostility, guilt, fear and varied levels of frustration. These may be exhibited in the form of acute panic reactions with fear of impending death. Most important is the enhanced opportunities for insight into the dynamic implications of family life, because the social and medical history obtained by contact with relatives arouses interest in the operation of the emotional milieu and environmental factors in disease. Students learn to take a psychosomatic history and to become aware of their own subjective personality reactions to the patients. Special[12] emphasis[18] is placed on the investigation of stressful situations in the life history of the patient which may be related to the onset or exacerbation of his illness. One of the observations made by members of our resident staff has been the surprisingly large amount of information which could be elicited by the fewer direct questions asked and by encouraging the spontaneity of the patient's story. Students and residents are encouraged to ask the patient what he, himself, thinks is wrong and to

Presented at the annual meeting of the American Psychiatric Association in Chicago, May 17, 1957.

Dr. Schwartz is a Fellow of the American College of Physicians and the American Psychiatric Association; Associate Professor of Psychiatry, Wayne State University Medical School; Instructor in Psychosomatic Medicine, University of Michigan Medical School; Senior Physician at Harper Hospital and Sinai Hospital in Detroit; Senior Consultant, Lafayette Clinic, Detroit.

ascertain the degree of insight regarding his own condition.

This now brings us, secondly, to the importance of the liaison psychiatrist to the patient himself.

If the patient is referred to the psychiatric consultant for examination after all clinical and laboratory examinations have been exhausted and the patient is ready for discharge (which is often the case), he usually fears that disclosures regarding his emotional condition may prolong his hospital stay. Rapport of the patient, in many instances, is poorly established with the consultant psychiatrist who usually sees the patient but once and this contact may be viewed by the patient as a threatening and unnecessary procedure. The psychotherapeutic relationship should begin immediately at the time of admission, thus helping the patient to see the liaison psychiatrist as an integral part of ward routine. Many patients have voluntarily requested further interviews with the psychiatrist using this procedure. Further, ward morale is improved as the truculent patient can ventilate his resentments. This non-threatening ward atmosphere gives lability to the potential for the anaclitic[8] type of therapy, which avoids the too rapid removal of defense somatization resulting in aggravation of deep psychic mechanisms. The preparation of patients for transfer to surgical wards is facilitated by allaying anxiety. This provides for an easier anesthesia, expedites convalescence and decreases the opportunity for the development of psychic trauma, especially if radical surgery may be required which might disturb the patient's body image or representation of himself. The cost of repeated hospitalization for recurrent or chronic disease can be reduced by the clearer evaluation of the psychic components, such as by the use of illness as a flight from intolerable life situations.

The patient's descriptions of observations of others in fear[4] or rage and his own reactions to such feelings often shed important light as to the genesis of symptoms. It is of significance to determine the patient's "will to get well" and his attitude toward secondary gain or compensation for illness. There should also be an evaluation[7] of reactions to present and past medical treatment, invalidism, and the relationship between current physical symptoms and existing psychological changes. Attention should also be called to patients who have paradoxic reactions[11] to drugs or who are the most recalcitrant to treatment with sabotaging of all therapeutic efforts, since such symptoms may serve a psychological purpose. The liaison psychiatrist[14] often is able in this way to obtain information which the personal physician, by direct questioning, might traumatize the patient thus aggravating symptoms. The presence of anxiety and guilt feelings appearing under a specific stress situation accompanied by sleep disturbance may warn of the setting up of an imminent accident-proneness.

Of interest is the approach in dealing with the family in cases of traumatic injury in order to avoid their increasing the anxiety and apprehension of the patient and thereby fixating symptoms. The rising cost of hospital insurance could be affected by a clear appreciation of the psychological mechanisms.

Finally, regarding the relationship of the psychiatrist to his fellow physicians—the former might be relieved of his aura of isolation (acquired by hours working in locked psychiatric wards) thus enabling him to fraternize with his medical colleagues.

The internists' interest can be aroused by seeing in his own patients the role of emotion in organic disease. With the increasing use of steroid therapy[15] the internist has come to recognize the vicissitudes of hormonal therapy—such as euphoria or affective symptoms with depression, the suicidal potential or, more uniformly, the development of aggression. The recent advances in biochemistry, neuropsychiatry and chemotherapy[11,13] have necessitated that the psychiatrist have some part in bedside care. Working in the medical ward he is able to observe cases otherwise not referred to him and he can see them early so that a non-threatening relationship can evolve. He can clarify some of the psychological hazards and problems of terminal illness, and should determine whether or not recent psychological problems of the patient are the same or different from those chronically present.

The psychiatrist with his insight into the unconscious is alerted to the likelihood of impending death. An increased restlessness and the development of multiple and implacable complaints may be forerunners of imminent demise.[2] He should ascertain how a given personality can be disorganized by toxic or infectious factors, and should be able to evaluate the degree of the patient's health consciousness, his concept of his body image, and the anatomy involved. Such questions

as the relationship of illness to hazards of elective or polysurgery and to repeated hospitalization must be considered. Working with medical colleagues, the internist[16,17] can bring his specialized knowledge of physiological disorders to the psychiatrist who, in turn, can determine the conflict situation and the specific physiologic accompaniments to chronically-present or periodically-returning emotional states.

Working on a medical ward, painstaking empirical[1] observations and factual reporting should complement theorizing. Cases should be selected without bias as to the emphasis on clinical or physiological data. We try to teach that there must not be the attitude that one, and only one, theory can explain the etiology of a psychosomatic disorder. As medical patients are studied and treated it becomes clear that an understanding of the patient's personality depends upon an accurate psychodynamic appraisal of his life situation, his defense mechanisms, conflicts and anxieties, rather than by specific behavoral patterns. Although psychosomatic research[1] has concentrated upon three general areas—(1) the level of the exclusively psychological, (2) the relation of personality factors to measurable physiological processes, and (3) the development of medical illness from deranged physiological functioning—we considered that in these disorders the psychological stress should be regarded as contributing primarily to the development of disturbed organic adaptation, namely, a medical disease.

Let us now consider the basic concepts under which the liaison psychiatrist operates. The fundamental hypothesis is Selye's[18,20] "general adaptation syndrome," which provides for the inter-relation of the physiological and psychological in the human organism. The theory implies that man is in a state of continual disequilbrium, striving to modify and come to terms with stress from without and strain from within. Hence, it is unjustified to consider "psychosomatic diseases" as purely psychogenic—that is to say, primarily determined by direct translation of psychic conflict into the structural sphere, as for example, in hysterical conversion symptoms. The ego, through its defense mechanism and executant functions, makes adaptation possible. If there is a disturbance of the adaptive functions, psychological symptoms result. In this way, repression,[9] denial, sublimation, substitute object choice and rationalization are a few common defensive measures used by the ego to facilitate adaptation to psychic distress. The processes of learning and communicating represent still other categories of the ego which may serve adaptive functions. When faulty adaptive patterns develop, or psychic stress cannot be managed by ordinary methods, secondary or tertiary responses—in terms of symptoms or character defects—appear. If psychosomatic disorders are related to the psychoneuroses, psychoses and other "psychiatric" entities, it becomes necessary to explain why some patients have predominantly visceral symptoms and others mainly psychological symptoms. We have observed that some patients actually alternate between attacks of asthma, bouts of ulcerative colitis, or peptic ulcer and actual psychosis. Such occurrence indicates that a patient may have more than one way of adapting to psychological stress, either by visceral pattern or by repression in the ego to precipitate psychosis. In evaluating a psychosomatic problem, we must understand the constitutional factors, the uniquely individual psychological experiences of the patient and the continued stressful situation. In this way we can evaluate what is happening in a patient by determining the kinds of psychological stress which have awakened adaptive responses in the viscera and the manner in which such visceral reaction-patterns serve as an adaptive function for psychological stress. There is no factual distinction between psychosomatic and non-psychosomatic disorders since the organism is activated more or less completely by any stress. The special contribution of the psychiatrist is to make available for understanding the effect of interpersonal, emotional or symbolic factors on the organism.

Obtaining the reaction patterns,[7] both physiological and psychological in terms of early and present reactions in the patient, his body image, his social environment, economic status, family, work, et cetera, affords an insight permitting understanding of repeated unsolved crisis which again and again initiate somatic complaints. We have observed, especially in patients admitted in acute panic fearing a "heart attack," the effect of pseudohereditary as opposed to truly hereditary factors—that is to say, exposure to or witnessing someone dying suddenly of a cardiac condition, such as a parent, relative or even a friend. Disturbances in secretory and smooth muscle functions whether circulatory or *in viscera* can be timed or related to the appearance of particular

conflicts—for example, exposure to a fatal illness in the family. Such exposure varies as to whether it occurs during the first five years of life, or during the latency period, adolescence, or adult life. A series of cases illustrative of the practical application of the foregoing follows.

An abstract of the record of a white man, single, aged twenty-nine, is reported in view of the acute problems presented by his ulcerative colitis.

Case Reports

Case 1.—The patient's antagonism and lack of co-operation created a ward problem. His condition was such that surgery was recommended with resection of the bowel considered due to the fact that his colon became like a pipestem and bleeding was marked. He responded to cortisone therapy; however, his turbulent aggressive attitudes continued. His diarrhea began July 31, 1954. He dated this specifically to a visit a few days before with a physician who aroused his rage by beginning the examination with a question: "Tony, how come as goodlooking a boy as you is not married?"

Prior to that he had an irritable bowel and had noticed mucus in his stools. He said the doctor upset him because he had been thinking about marriage and realized he was not prepared for it. He admitted that he was concerned about his masturbation which had existed for eight years and about which he felt a great deal of guilt. He consulted his priest who advised him to develop new habits. He developed cramping intermittent lower abdominal pain and had six to ten watery bowel movements per diem and four to six per night. Tenesmus continued and he became very weak with his weight dropping from 180 to 140 pounds in four months' time. He also complained of dizziness and pain on defecation. Belladonna seemed to increase his diarrhea. Kaopectate gave him little relief. He had a mild elevation of temperature. He was given sulfa drugs and vitamins. He was also put on a starvation diet by his former physician.

Family history revealed that his father, aged fifty-eight, had always been nervous and suffered from hypertension and had had a severe pruritus ani for over fifteen years. The patient said he used to hear his father scratching every night. His mother, aged forty-eight, is described as being over-protective, apprehensive and very solicitous of the patient. He is the eldest of four brothers and one sister. One brother, aged twenty-seven, was discharged from the Army with eczema after one-and-a-half years service. Another brother, aged twenty-four, weighs 230 pounds.

Past medical history revealed that he had malaria and dengue fever while stationed in New Guinea with the Signal Corps of the Army. He spent eight months in New Guinea and one month in Okinawa. While on Luzon he was persuaded by a "buddy" to visit a prostitute. He did not want to go but said he was "kidded into it." He was very frightened by this experience and went to the dispensary to determine whether or not he had acquired gonorrhea. He had no infection. Two months later upon persuasion by another friend he visited a prostitute in Okinawa. He again became frightened and went to the dispensary to be examined to see if he had a venereal disease. In spite of reassurance he continued to be frightened and two months later noticed mucus in his stools. This substance, he said, was clear and like jelly; but he did not go to see a doctor. He thought he had a "strain." When he was discharged from the Army he was still preoccupied with the possibility of having gonorrhea. He consulted a reputable urologist and had a cystoscopic and complete examination and was informed he had no organic disease. He said he was disgusted with himself and insisted there was a venereal disease. He consulted another physician who gave him prostatic massage over a period of one year. He was not told that he had a venereal disease but learned that he did have an enlarged prostate. He felt the doctor "implied" he had a venereal disease because he had given him penicillin. He checked with another physician and was told he had no venereal disease and this doctor would not take money for his visit. He felt discouraged and disgusted and finally saw another physician in July, 1954, which was the last medical man consulted prior to his admission to the University Hospital in Ann Arbor.

The following is a summary of the psychiatric findings on admission: He said he could not eat regularly due to his apprehension. He had no dates and although very attractive was disinterested in girls. He admitted having been teased and "picked on" all of his life due to his passive naive attitudes. He doubted his virility—"I felt I was anemic and weak." He said he had been under constant tension for the past twenty-five months, was unable to work continuously, and considered himself a failure. In view of his hostility and because of the bleeding, it was decided to have a sodium amytal interview. He would have been a poor surgical risk and as he was not co-operative with the doctors, further exploration was deemed advisable to evaluate his conflicts.

Under partial sodium amytal narcosis he revealed very dramatically the reason for his basic rage. He brought out the fact that while in New Guinea he had been told by some of the men in his company that since he was such a "loyal citizen" he would be given a machine "to break the Japanese code." This item supposedly had been seized from the Japanese and was called a "scrotogram" operated like a typewriter. He had even asked the company commander when the "scrotogram" would arrive. He was the butt of jokes and ridicule for several days. He was made aware of the situation by one of his friends. He became enraged but was powerless and thought of taking revenge. A few days later this matter was again discussed with him and he seemed to be less resentful. At the time of colectomy his emotional status had improved and he made a good recovery following the operation and was discharged from the hospital and follow-up psychiatric consultation was advised. The psychotherapy was continued by a resident physician under supervision.

It is doubtful that without the services of a liaison psychiatrist available in routine medical ward rounds that this case ever would have been considered for consultation. It had not been deemed advisable to stir this patient up further since the colectomy had already been scheduled, but psychotherapy was necessary to prevent possible continued ulceration at the site of colectomy.

The case of a fourteen-year-old boy with convulsive seizures and urticaria[5] demonstrates the need for continued observation to treat the psychological basis for symptoms. This patient was referred for psychiatric evaluation with the history and clinical findings as follows:

Case 2.—This fourteen-year-old obese, somewhat regressed, boy was brought to the Clinic by his parents because of "spells" of four-years' duration and chronic urticaria present since January, 1955. H. is an only child. His spells started with a "funny feeling" like nausea in his stomach. This feeling spread to the right shoulder and involved the entire right arm. Then his right arm would start to jerk grossly. He lost his vision, usually entirely, but sometimes (from his description) it sounded as though he had a half or three-quarter field defect. During all of this time he was conscious and could hear in spite of his inability to see. He never lost consciousness, fell down, or injured himself during these episodes. Almost all of them occurred while in bed at which time, when he felt one coming on, he would call his parents and they would come to him and comfort him. Following one of these episodes he would feel sleepy and frequently did sleep. He had no headache. On one occasion, recently, one side of his tongue was bitten during one of these. His parents had said that his eyes roll up at times during the episodes. His father noticed that during some spells he would smack his lips and makes a chewing movement with his mouth.

The first of these episodes came in 1951 when H. was ten and occurred when he was in bed with his parents. He explained that he had frequently gone into his parents' bed in the mornings because his father wanted him to. His father might say of an evening, "Why don't you come into bed with me tomorrow morning and we'll fool around." It was always to join the father that he enters the bed. Their fooling around consisted of wrestling in which they try to pin each other down and lie on top of each other. Although this occured less frequently than in former years, it still occasionally did occur. H. dreamed repeatedly as a child of an elephant rolling over on him. H's. parents were very reluctant to have him be away from them. They would take him with them almost every place that they went and told him that it would be dangerous for him to stay home alone because a burglar might come in and he would be defenseless. Until the age of about ten or twelve, H's. father spanked him severely with hand or a board on the seat whenever H. was the least bit self-assertive or when either parent caught him masturbating. H. stated that the Lord was helping him stop masturbating through his prayers.

In January, 1955, H. went to a dentist for braces. The braces were applied on three different visits and following each visit urticaria appeared on the abdomen. Following the last visit the urticaria spread to the remainder of the body and has remained chronic since that time. There is considerable pruritus associated with this. His I.Q. was 100. His skull x-ray was normal and a complete physical and laboratory examination was negative. E.E.G. revealed a dysrhythmia grade 2 which was generalized but maximal in the right hemisphere. Dermatologic consultation suggested that the urticaria might be psychogenic in origin, some recommendations about a diet were made and the use of chlor-trimeton 8 mg. b.i.d. was advised.

The neurological consultation revealed a normal neurologic examination except for a questionable plantar response on the right. It was the neurologist's impression that H's. spells represented a convulsive disorder with some components suggestive of a temporal lobe focus and focal grand mal seizures. He found no evidence of any space-occupying intracranial lesions. H. was placed on phenurone ½ grams two to four times daily. We felt that there were prominent emotional factors, with which he certainly needed help, but that in following him it would be necessary to remain mindful of the possibility of some kind of structural focal temporal lobe lesion.

On arrival in our hospital many of the laboratory studies were repeated without significant findings. Skin sensitization tests were done by an allergist and it was found that although allergic to wheat, potato and broccoli, it was felt that the reactions were not marked enough to explain the giant urticaria or angioedema from which he suffered. Following three months of frequent psychiatric interviews, it was apparent that his guilt reaction about masturbation resulted in a convulsion early in the morning or in getting the hives "if something good happened to me." Whenever the received a present or was pleased by attention from relatives or friends he would either have a convulsion early the next morning or have hives. He felt he did not merit the kindness of his parents and felt guilty about the cost involved in his medical treatment. He felt he should be punished. When this information was brought to the attention of his parents, the mother verified the patient's observation by stating that she had kept a careful record of the daily situation correlated with the time of appearance of the urticaria or convulsions. He exhibited no symptoms after three months of psychiatric treatment. It is obvious this boy was best treated psychiatrically on a medical ward.

We have noted that patients with functional disorders are rehospitalized in some cases repeatedly with the same complaint until a psychological evaluation brings out the true facts. To illustrate, we cite a patient who was seen during the fall of 1955 on the medical service of the University

Hospital. This patient had had forty-two admissions during the previous five years in many hospitals in Southern Michigan with six admissions at the University Hospital during this time. Each time he was admitted as a potential "acute abdomen" and after repeated routine and special laboratory examinations were made, no definite organic disease was definitely established. The patient underwent (despite these findings) a cholecystectomy, appendectomy and an exploratory laparotomy—all with essentially negative findings.

Detailed psychiatric study at the time of his last hospitalization, revealed the functional basis of his difficulty. His hospitalization during the five years was estimated to cost $85,000 which was paid for by two insurance companies and finally by the State. The liaison psychiatrist alerted to the functional basis of repeated hospitalization can do much to lower the cost of rising hospitalization insurance.

Another patient underwent polysurgery, having thirteen major operations, yet the basis for her difficulty was that of emotional conflict. She had been a favorite daughter in a well-to-do Catholic family. She had been deeply attached to her father who had indulged her. She married a Protestant against her parents' wishes. Her husband was a physician. He agreed that any children they should have would be brought up in the Catholic faith. They had three children, all of whom were refused permission to attend parochial schools. He berated his wife for attending Mass on Sunday mornings. He was impatient when she complained of physical discomfort and taunted her with "what shall we take out now"? A review of the pathology reports of tissue from her thyroid, gall bladder and appendix revealed a minimal pathology. In one of the earlier abdominal operations she had been sterilized at the request of her husband without her permission or knowledge. Her repeated illnesses were punitive devises to hold her husband and to punish him. Psychotherapy following long hospitalization and referral of her husband to a psychiatrist brought about a more satisfactory adjustment and no further evidences or recurrences of illness.

Summary

To summarize, the liaison psychiatrist on a medical service can participate in several uniquely significant areas. First, the residents, interns and students can learn from him to approach the patient as a whole, not only from the medical but from the emotional, economic and social points of view and learn to treat him with all the ancillary services.

Second, the internist can be made aware of the function of psychiatric problems in his patient and how their solution facilitates the treatment of the patient. He can also learn the importance of psychiatric evaluation of patients being treated with the latest hormonal and chemical compounds which, often, induce disturbing results.

Third, the hospital benefits from the liaison psychiatrist in that he prevents unnecessary and expensive procedures being carried out on individuals where not entirely indicated.

Finally, the patient is enabled to devote all his energies to recovering from his disease and not have them dissipated by the fear and anxiety of hospital procedures. Most vital from the psychiatric point of view, he learns that he need not express his psychic conflicts through his soma.

The psychiatrist himself is enabled to have access to patients in a non-threatening way as a part of the total medical care and at the same time to discard the isolation that disturbs his communication with fellow physicians. By tactful and thoughtful consideration he can do much in a general hospital to overcome many of the traditional resistances to the application of psychological insights in the cure of disease.

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Occupational Therapy Procedures in Rehabilitation Medicine as Applied to Hemiplegia and Arthritis

By Barbara Jewett, O.T.R.
Detroit, Michigan

REHABILITATION medicine is concerned with the restoration of maximal self sufficiency and usefulness of each individual—to care for his daily needs, participate in family and community affairs, and support himself through a vocation. The degree of rehabilitation which each individual achieves depends upon the abilities—physical, mental and emotional—which he possesses. Some patients are less disabled than others and their recovery occurs more rapidly and to a greater extent. Some can achieve full independence in all spheres of activity. Others must be satisfied to be able to care for themselves. Still others can become only partially independent. For each patient an individual goal must be set physically, mentally, socially, and vocationally.

Rehabilitation of the physically-handicapped individual is a complex problem and requires a team of professional people to work with the patient and his family to achieve rehabilitation. The planned rehabilitation program assists in making maximal use of the handicapped patient's time as well as his abilities. He is expected to do for himself all that he can. As soon as the patient has regained self-sufficiency in any activity, he begins to use it again daily on the ward and in the clinic. This results in an activity program throughout the day contributing to improvement in strength, co-ordination and endurance.

The occupational therapist as a member of the rehabilitation team assists in the evaluation and treatment program. The function of an occupational therapy program for arthritic and hemiplegic patients is basically the same. The procedures used are dependent upon the individual's needs in testing abilities and providing definite and specific means of controlling and grading physical activity, such as, increasing range of motion, muscle strength and co-ordination. The patient often needs motivation and assistance in hospital adjustment as well as adjustment to a residual disability. The activities program will provide for development in self care activities, avocational and hobby interests as well as provide a means of pre-vocational exploration and establishment of work tolerance. The occupational therapist must encourage socialization and recognize the need for referral to other agencies within the hospital or community.

The specific needs of the arthritic and hemiplegic patient will dictate the emphasis of the therapeutic relationship which must be established between the occupational therapist and patient. The emotional problems of the physically-disabled individual must be recognized and approached positively. Emphasis and attention must be placed upon the patient's capabilities and not on his inabilities. The arthritic patient must be helped to overcome the fear of pain and movement. Assistance is given the patient in planning less strenuous and tiring methods of performing familiar tasks to which he is to return after discharge. Patterns of movement and positioning must be established to prevent formation of contractures. Stimulating creative activities in occupational therapy can capture the interest of the patient and motivate him to actively participate and serve as a deterent to fear of pain.

The hemiplegic patient may be sensitive and irritable perhaps due to the loss of use of extremities or possibly aphasia and slurring speech. He may show rigidity of personality, an inability to function properly within a changed time schedule or situation. Rigidities are probably a result of withdrawal on the part of the patient in the face of overwhelming psychological trauma.[1] The Occupational Therapist must move slowly toward the patient at the outset and be gentle but firm in initiating the program. The program should be rigidly controlled relative to time, space

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Miss Jewett is Associate Professor, Wayne State University, Chairman, Department of Occupational Therapy and Chief Occupational Therapist, Department of Physical Medicine and Rehabilitation, Detroit Memorial Hospital.

and personnel, and activities varied within this frame work. All activities should be aimed at ego building. The patient must be made to feel increasingly secure if he is to rid himself of his natural tendency to withdraw.

Another psychological phenomena in the hemiplegic individual is propositionality. Many activities are done as habits operating on a level slightly under consciousness. When one becomes conscious of an activity, performance becomes less efficient and habit like. During concentrated interest on an activity or project often a spastic hand is quite functional. Propositionality is basically a problem of consciousness of movement. Patients move only to the point of efficiency dictated by consciousness. The patient must be taught to perform consciously to the highest point of efficiency and then turn the activities into habits which operate slightly under the level of consciousness. The most effective mechanism for this transition is functional activity.

Deterioration in the behavioral or evaluative standards is characteristic of many geriatric patients following a cerebral vascular accident. The psychological phenomena has been called amorality.[2] The level of aspiration and goals becomes lowered and subsequent inactivity and psychological trauma are evidenced by the patient saying: "It doesn't matter." "It's good enough," "I don't care," or "It's hard to do it the way you want it done." The patient after a C.V.A. is satisfied with much lower standards of performance than he was prior to the accident. Pride and perseverance toward realistic goals seem to become more difficult and poor performance becomes acceptable. Occupational therapy instituted soon after the C.V.A. prevents inactivity which increases amorality. Self-care activities which the patient can do should be done daily. He should be asked what he thinks of his performance and that of others and should be helped to evaluate his acts and raise his standards of evaluation. Amorality is not a result of inability to perform. It takes place in all areas whether disabled or not. It is in part the loss of cultural bounds in the form of goals or levels of aspiration as a result of being faced with great psychological trauma. Faced with great potential disability in the hemiplegia, the daily bounds and goals which the patient has learned become less significant. Another explanation is that the destruction of the neural tracts through the C.V.A. make the establishment of new tracts necessary if the former evaluation level is to be reachieved. The phenomena of a morality might have any one of three etiological factors: (1) disturbed neural tracts, (2) sudden inactivity and (3) reaction to overwhelming psychological trauma.

In the C.V.A. patient we often find "attentional dissipation." He has difficulty in paying attention to the stimulus at hand. It is difficult to teach such a patient because he seems unable to concentrate when instructions are being given and seems unable to persist in practicing to acquire skills as a result of instruction. The C.V.A. patient has difficulty in concentrating on one stimulus because it is difficult to ignore other stimuli. He is being bombarded by and reacting to many other stimuli about him. He must be taught to be selective in his reactions to stimuli in the environment. The occupational therapist helps the patient learn to pay attention to the task at hand and not to pay attention to other stimuli. Environment should have a low stimulus level because of the low stimulus threshold of the hemiplegia.

The occupational therapist assists in the evaluation of the disability by: (1) measuring joint limitations, (2) testing performance in activities of daily living, and (3) observation of patient behavioral pattern or attitudes. In the total treatment program the occupational therapist aids in the prevention and treatment of deformities by: (1) encouraging maintenance of good body positioning at all times, which may include the use of slings, and other supports, (2) providing activities to encourage full range of joint motion which may be assisted through sling supports, and (3) stretching joints through planned activities. The occupational therapist teaches the patient to perform the activities of daily living which include the fundamental motions of changing position, reaching, grasping, standing and walking. When these motions are carried out into real life situations and combined into actually "putting on shoes" we speak of activities of daily living. The therapist may need to develop assistive devices, such as, reaching tongs, long handled comb and shoe horn, knife-fork, etc., or to inform the patient where these items can be procured to help the patient meet his daily needs in spite of his disability.

Suggestions are made to the patient and his family for changes needed in the home situation, such

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Specificity and Sensitivity of the Reiter Protein Complement Fixation Test for Syphilis

By Benjamin Schwimmer, M.D.

Detroit, Michigan

THE IDEAL serologic test for syphilis would be: (1) sensitive, (2) specific, (3) easy to perform, (4) low in antigen cost, (5) have a readily available supply of antigen, and (6) be reproducible. This study was undertaken to determine the first and second points in regard to the Reiter Protein Complement Fixation test for syphilis, henceforth referred to as the RPCF. The situation in regard to points 3, 4, and 5 is known. The test, being a complement fixation test is more time-consuming than the flocculation and agglutination tests, requiring about the same amount of time and effort as a Wassermann (Kolmer). The antigen is expected to be extremely low in cost, a vital point in any procedure to be employed on a large scale, eventually costing about one cent per test. The supply of antigen is as yet uncertain and erratic, but American and foreign companies are now going into production and probably there soon will be no problem in this regard. Reproducibility, point 6, will not be touched upon in this study.

The Reiter's strain of Treponema pallidum is a non-pathogenic treponeme that can be cultured in large quantities. It was first studied as a source of antigen for the serodiagnosis of syphilis by Gaehtgens.[3-6] At first, a lipid extract of the organism was employed for serologic testing. This produced false-positive reactions in much the same manner as do the tissue lipid antigens employed in the reagin tests (i.e., Kolmer, Kahn, Venereal Disease Research Laboratory Test, et cetera).[1,7] D'Allesandro, in 1949, isolated a thermolabile soluble protein antigen from the organism.[2] This protein does not react with reagin in syphilitic serum, but with a true heat-stable anti-syphilitic antibody. The test employed is a complement fixation test.

TABLE I. SENSITIVITY OF RPCF COMPARED WITH KOLMER TEST FOR SYPHILIS
35 Cases

Diagnosis	Cases	RPCF		Kolmer	
		Positive	Doubtful or Negative	Positive	Doubtful or Negative
Asymptomatic neurosyphilis with positive spinal fluid Kahn or Kolmer	16	16	0	16	0
Tabes dorsalis	3	1	2	2	1
Tabo-paresis	1	1	0	1	0
Late congenital syphilis with stigmata	12	11	1	12	0
Secondary syphilis Darkfield positive	1	1	0	1	0

The sensitivity of a test for syphilis is relatively easy to determine. Thirty-five cases were selected that could be diagnosed as syphilis with relative certainty without resort to a blood (reagin) test at all. The diagnoses were made on the basis of physical or spinal fluid laboratory findings. These cases, all adequately treated, were in five categories shown in Table I. The results of the RPCF and Kolmer tests are shown.

The anergy in a high percentage of cases of tabes dorsalis is in accordance with previous experience with other reagin and treponemal tests. In this small series, the Kolmer appeared to be slightly more sensitive than the RPCF. However, excluding the case of tabes, both tests have a sensitivity of over 97 per cent.

In determining the specificity of a treponemal test for syphilis, two laboratory problems arise:

Biological false positivity.—The clinician is often faced with the situation where a patient has a positive serological (reagin) test for syphilis, but a careful history, physical examination, x-ray

From the Social Hygiene Division, Detroit Department of Health, Joseph G. Molner, M.D., Commissioner.

TABLE II. BLOOD SURVEY IN UPPER-CLASS AREA
536 Subjects

	Kahn	Kolmer	RPCF
532 specimens	0	0	0
3 specimens	0	4+	0
1 specimen	0	0	Anticomplementary

of the chest, and spinal reveal no evidence of syphilis. Until the advent of the treponemal tests for syphilis (TPI—Treponema pallidum immobilization, TPCF—Treponema pallidum complement fixation, RPCF, et cetera) there was no satisfactory method of making the differential diagnosis between latent syphilis and a biological false-positive serology. Careful studies have indicated that these tests are highly specific for syphilis and do not give a significant number of false-positive reactions.

Spontaneous or post-treatment reversal of reagin tests to negativity.—It has been well established that a high percentage (about 33 per cent) of syphilitic patients will eventually become seronegative without treatment when tested with the reagin tests. A higher percentage of patients afflicted with syphilis will become seronegative at varying times after treatment. However, the treponemal tests, testing for a true heat-stable specific antisyphilitic antibody, remain positive for life in the vast majority of cases, regardless of the results of the reagin tests. The significant exceptions are persons having tabes dorsalis and those treated adequately in the primary stage or early in secondary stage.

This poses a serious problem in the evaluation of a treponemal test for its specificity, that is, its freedom from giving false-positive results. For example, if 100 persons with no history or physical signs of syphilis were tested with both the Kahn and RPCF tests and 100 were Kahn-negative but four were RPCF-positive, would this mean that the RPCF resulted in 4 per cent false positivity? Not necessarily. These four positive results could be due to previous syphilis in which the serology (reagin tests) spontaneously reverted to negative but continued to show a positive treponemal test. This problem was approached in two ways:

1. Split specimens of prenatal blood tests were obtained from 536 private patients from an upper-class area where the incidence of syphilis would be expected to be very low.* A mass blood survey of such an area would yield less than 1 per cent positivity on serological testing. A Kahn, Kolmer, and RPCF were done on each specimen. The results are shown in Table II.

As anticipated, the positivity rate with the reagin tests was less than 1 per cent (in this case, 0.6 per cent) with the Kolmer and zero with the Kahn. All three patients with positive Kolmers had negative RPCF tests. The presumption is that these three represent biological false-positive reactions. In view of the known occurrence of false-positive reactions in pregnant women, a 0.6 per cent false-positivity rate with the reagin tests is not surprising.

Even if the single specimen that showed an anticomplementary reaction to the RPCF was considered to represent a false-positive reaction to the RPCF, this would amount to a percentage of false-positivity in this study of 0.2 per cent to the RPCF.

2. It has been established that the newborn infants of adequately treated mothers who have a persistently positive serology (reagin) will often show a positive reagin test for the first three months of life. This is due to the passive transfer of reagin to the fetus from the maternal circulation. The treponemal antibodies can also be passively transferred.

In this series, the infants of seventeen women patients of the Social Hygiene Clinic, treated for syphilis before the pregnancy in question, and not treated during that pregnancy, were blood-tested at ages three weeks and four months. None of the infants showed any physical signs of syphilis. All showed positive Kahn tests (varying dilutions) at age three weeks. All showed negative RPCF tests at three weeks. All were Kahn-negative at four months.

Comment and Summary

1. The RPCF has no advantage over the reagin tests in regards to sensitivity. The reagin tests are satisfactory in that regard.

2. The RPCF, when studied for specificity (i. e., freedom from false-positive reactions) from two approaches, resulted in false-positivity in 0.2 per cent and 0.00 per cent of cases.

3. The RPCF represents an extremely valuable and practical test that may eventually become routine.

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*For these sera we are indebted to Dr. L. W. Gardner, Mt. Carmel Mercy Hospital, Detroit.

Juvenile Delinquency

By Stuart M. Finch, M.D.
Ann Arbor, Michigan

JUVENILE DELINQUENCY is a broad term which has more of a legal connotation than a medical one. It indicates a pattern of behavior in a child which is contrary to the rules and regulations of his society. Obviously there are many things that a child can do of which his society would not approve. To name a few, he may lie, steal, cheat, fight, truant, run away or indulge in various types of sexual activity. We, as adults, lay down certain moral standards which we expect children to follow and whenever a youngster steps outside these boundaries we may label him delinquent. There are not only many unsocial ways that a child can misbehave, but there are numerous reasons he may do so. For example, a fourteen-year-old girl who is sexually promiscuous may be so because her mother is promiscuous. She may have been introduced to heterosexual activity at an early age by a relative or other adult. Still another possibility is that she resents her mother's chronic puritanical attitude and has chosen this sexual acting-out as a method of retaliation against her mother. Numerous other reasons may lie behind such a behavior pattern. In general, then, a delinquent is a youngster who behaves in a manner of which his society does not approve. This behavior may occur in school, at home or in the community.

It is important that the average physician have a realistic perspective in regard to the scope of the problem of delinquency. A great number of articles on this subject intended for both professional and lay consumption are published each year. Many of them are dramatic in nature and imply wide, sweeping assumptions which are not based upon reality. Actually, there are about 350,000 children under the age of eighteen who are brought annually to the juvenile courts of the United States. The number grows larger each year, but then so too does the population and the methods of reporting. It has been estimated that there will be approximately 40 per cent more children between the ages of ten and seventeen years in 1960 than there were in 1952. This obviously means that there will be more delinquent children even if the over-all percentage in the population remains the same. Certain other statistical data are useful to gain an impression of this problem of delinquency. For instance, the biggest number of youngsters who appear for the first time in juvenile courts are those between the ages of eleven and thirteen years.[4] It has been shown that nine-tenths of these youngsters have had, when their history is reviewed, serious difficulties in social adjustment prior to the age of eleven, but only at that time or within the next two years have they come to the attention of the court. Approximately 80 per cent of the youngsters referred to such courts are boys and the remaining 20 per cent are girls. If one considers both the first time offenders and the repeat offenders, some 84 per cent are between the ages of thirteen and sixteen.

Something should be said concerning the situation in Michigan. It was in 1945 that the first reasonably accurate reporting of juvenile delinquency was gathered from the entire state.[2] During that year 6,634 youngsters were referred to the juvenile courts as new delinquency cases. In 1955, ten years later, the new cases amounted to 10,736. This sounds as if there had been a tremendous increase in delinquency during these years. Actually, some of the increase can be accounted for in terms of improved reporting systems. Next, there were far more new traffic cases reported, presumably because more youngsters began to drive and to become involved in traffic mishaps or misdemeanors. In addition to this, there is the factor of the increased population of the state. Therefore, in the light of these facts, the actual increase in juvenile delinquency is far from the tremendous jump it originally appears to be. It has often been said that approximately two or three youngsters out of every hundred will eventually become seriously delinquent. This figure probably still stands. The reporting of juvenile

From the Children's Psychiatric Hospital, Ann Arbor, Michigan. Dr. Finch is Associate Professor of Psychiatry, University of Michigan, and Chief of Children's Psychiatric Service.

delinquency cases is still not thoroughly accurate. Many youngsters are brought to the attention of the juvenile court, but measures are taken or recommended which allow the case not to become an "official" one. Different counties deal with traffic offenses by juveniles in different ways. In some counties, juvenile traffic offenders are turned over to juvenile juries composed of their contemporaries. In other counties these matters are handled entirely by judges. In one county a young traffic offender might be listed officially as a juvenile delinquent, while in another, certain alternate methods might be tried before he is considered to be an "official" case. Thus it can be said that our present reporting and statistical data concerning juvenile delinquents leave much to be desired. Nevertheless, it remains that many youngsters are chronic irritants in our society and whether they have become "official juvenile delinquents" or not, they are still disturbed children who are behaving in a manner that is neither acceptable nor healthy.

There are certain broad sociological factors as well as intrafamily factors which have long been known to influence the incidence of delinquency. Some of these can be mentioned here. For instance, there are approximately six million children in the United States living in homes which have been broken by death, divorce or desertion. The effect of any of these events upon the child's developing personality obviously varies according to the age at which the event takes place, and the manner in which it is handled subsequently by the adults who are important to the youngster. Nevertheless, it remains that the child with only one parent or with separated parents cannot have the optimum, well balanced situation which exists in the normal mature family. The difficulty which may ensue in such a child's life is not necessarily one of delinquency nor even of other serious emotional problems, but it remains that his situation is not optimum. For instance, divorce more often than not takes place amid considerable emotional strife between the parents and this tension is apt to continue. Subsequently, its effect upon the children is one of producing insecurity, and delinquency may possibly be a result. It is known, for instance, that approximately half of all those children who come to the attention of juvenile courts in the United States, live in broken homes in which the parents have separated or divorced. This is obviously a far higher percentage than is true of the total population and indicates the potential damage that may occur to a child under such circumstances.

Another sociological factor which has long been known to contribute to delinquency, is that of overcrowded slum areas. In Philadelphia, for instance, one-twelfth of the city area contains approximately one-fourth of the total population and contributes approximately one-half of the delinquency referrals made to the juvenile authorities.[3] It has been repeatedly shown that slum clearance, if properly carried out, can produce a diminution in the juvenile delinquency rate in such areas. It is remarkable how few cities have taken effective action in this regard. Slum clearance is not an over-all answer to delinquency, but certain "blighted" areas can, if properly rebuilt, materially contribute to the lessening of delinquency rates.

Racial minorities produce more than their statistical share of juvenile delinquents. There exists in our society great prejudice, hate and other negative feelings toward certain racial minorities. These individuals grow up resenting their own society and acting-out against it in greater measure than those who belong to the majority. The widespread discrimination against these people can produce only counter-resentment in their families and their children and eventually contribute to the acting-out against society.

A large, but not always clearly recognized, contribution to delinquency is war. Our present crop of teenagers spent their formative years during the second World War and were further influenced by the Korean conflict. For the last fifteen or tweny years our society, and indeed most of the civilized world, has lived with the looming possibility of a recurrence of war. The advent of atomic power has made this threat a great deal more ominous than ever before in history. The possibility of military service for the men, and the disruption of the lives of civilian families is ever-present. Many fathers of today's teenagers were in service during the formative years of their children's lives. Families did not lead normal, secure and happy existences in those years. Many adults continue to talk of the uncertainty of our world today and the possibility of renewed conflicts. Adolescent children themselves are eager listeners to such conversations and may, especially if they are unstable, adopt the attitude that catastrophe lies in the near future and thus present behavior is to be excused.

Still another sociologic factor which is not al-

ways recognized is the prevalence of working mothers. In 1952, for instance, approximately one out of every four mothers whose children were under the age of eighteen was gainfully employed in some manner or other. The rising cost of living has made it necessary for many mothers to work and thus to play a less active role in the home. The ultimate result is a disorganized family unit with little cohesiveness. (In many instances they relegate part of their maternal duties to underpaid and untrained help.) In still other instances, the mothers work because they feel the maternal role is not particularly important. They tend to support their rationalization in this direction by citing the many other mothers of their acquantance who work. The mother becomes harried, rushed and anxious and she cannot conceivably give to her children all that she would ordinarily be able to give. This is obviously most important in the child's preschool years.

A final factor worth mentioning is the increased migration of families from one part of the United States to another. The population of California, for instance, particularly in the Los Angeles area, is growing by thousands of people every week. Many southerners from rural areas are moving north into large urban centers. The emotional turbulence and upheaval produced by such migrations have a tremendous effect upon the children. In addition, many such families are of a marginal income level and move into slum areas where morals and behavior patterns are substandard. The parents become primarily concerned about livelihood and pay less attention to the children. The youngsters are affected both by parental insecurity and by the moral degeneracy of the new neighborhood. All of these factors are important when one considers the over-all problem of delinquency. It becomes obvious that there is no single, simple answer to antisocial behavior in children.

Having established delinquency as a broad and complex problem, the question arises as to what role the physician should play in regard to it. First, one must decide whether the physician is merely a medical person or whether he is also an active and contributing member of his community. Because he is looked up to by most people and his advice is heeded, he is in a position to be widely influential, and most physicians fulfill the responsibility this position brings them. The mature physician is interested in juvenile delinquency because it is a problem of the community and he is willing to offer not only his medical services, but also to offer himself as a person in dealing with this major problem. (Our orientation here is primarily that of a physician acting in his medical capacity.) Unfortunately, the medical profession does not measure up particularly well in this regard. There is a common tendency in medicine to be primarily concerned with the patient who has organic illness. This attitude predominates in many medical schools and thus in the minds of many physicians. I would like for a moment to consider this problem from the standpoint of the individual physician who is called upon to evaluate a delinquent youngster. To the average doctor this may or may not be a common situation, but it is certainly one which the medical profession as a whole cannot ignore or refer to someone else. The mature physician of today is not only interested in people and all ills that man is heir to, but also he avails himself of at least the fundamentals of all areas of medicine. The delinquent may be sick just as much as the paretic or the anemic patient. If we as physicians reserve to ourselves the right to treat the sick, we must not exclude certain people because their illness disturbs us, makes us angry or because it reveals no demonstrable organic pathology.

As mentioned previously, the greatest percentage of "first time delinquent" youngsters is in that group between eleven and thirteen years of age and 90 per cent of those children reveal a seriously disturbed adjustment prior to eleven years of age. This means that much prevention has yet to be accomplished and it is in this area that medicine should play its greatest role. The tendency of many physicians is to assume "the child will grow out of this mischievousness." They fail to recognize the difference between ordinary childish exuberance and budding delinquency. The average delinquent does not come to the attention of the courts until he is at least eleven years old—mainly because he is not big enough nor experienced enough to get into serious trouble prior to this. The five-year-old, for instance, who has an embryonic delinquent pattern has a narrow scope of activity which does not reach the law enforcement agencies. It is, however, the type of pattern which should be recognized by the family physician. Preventive measures taken at this time can be remarkably rewarding in terms of the eventual cost to a family, a patient and to society in gen-

eral. Small children are restrained physically by their parents whereas their older counterparts cannot be so controlled. One mother recently said, "he has always been a behavior problem, but until he got to be about eleven I could handle him and force him to behave." What she meant really was that she could limit his sphere of activity so that he did not become a community problem. She certainly was not curing his delinquency.

The physician whose advice is sought concerning a delinquent youngster should be prepared to determine the following things. First, what the characteristic behavior pattern of the child is and how long it has been present. Second, from the over-all history of the child's development, why this pattern is present. Third, what can or should be done to eliminate the difficulty. These steps are not basically different from those followed in any medical case, but they do involve less tangible factors.

At this point I should like to make what may be an oversimplification of the problem and divide delinquency into an "inner" type and an "outer" type. The handling of a specific case depends in great measure upon this division and although mixtures often occur, it is important to have in mind the basic differences between the types. In the "inner" type of delinquency the primary problem is the psychopathology within the youngster himself. He is emotionally sick in that he has residual immaturities or conflicts within himself and his behavior is determined by these inner problems. To take a simple example, let us postulate a child of twelve who is inwardly passive. He has been coddled and babied by his overprotecting mother throughout his early years. However, when he was ten she sensed her mistake and began ridiculing his passive, babyish demands. The youngster was already aware of his immaturity and resented it, but his mother's criticism was the final blow and he buried the passivity under a layer of pseudoaggressiveness. Now, whenever his inner passivity surges up, he lashes out destructively and senselessly. To punish this child or to smother him with affection would not eradicate the problem since it is basically unconscious and persists in spite of the environment.

The "outer" type of delinquency is a result of improper—but not pathologic—training. These children have what are really healthy personalities, but they have been given the wrong set of directions. They have neither immaturities nor conflicts, but merely wrong impressions of how one should behave. To illustrate, it is perfectly possible for two pickpockets to marry and raise "normal" children who are also expert pickpockets. These youngsters may have received ample love and attention so that they have stable personalities, but they still firmly believe that picking pockets is a challenging and acceptable way to make a living. Psychologic testing of these children does not reveal true psychopathology.

An example of the "outer" type of delinquency was found in a fourteen-year-old girl referred to the Clinic because of a multitude of delinquent acts. Her history was, to say the least, a full one. She had cheated on school examinations, fought with her girlfriends, knocked two teeth out of her boyfriend when she thought he insulted her, lied to the truant officer and seemed to have been the constant center of much aggressive activity. Surprisingly enough when she was tested, the psychologist reported a comparatively normal personality structure. There was, in other words, evidence of a relatively flexible and strong ego and ample conscience and there was little on the test to indicate residual immaturities.

Further history revealed that this girl came from a family where the actions described above were normal and common. Even the street upon which she lived was the daily scene of activities of this type. Knifings had taken place several times in the recent past and fights occurred almost nightly. Tempers flared and the residents of the neighborhood settled things by fighting. Even the small children fought one another with parental encouragement.

The patient's mother had hit a nurse with a mop handle when she was hospitalized for the delivery of her last child. She resented some of the nurse's orders and had chosen her only method for showing this displeasure. The girl's father had praised his daughter when she knocked out her boyfriend's teeth, telling her that this was the proper way to handle such a situation. Surprisingly enough, this girl's parents had given her a reasonable degree of warmth and love during her early childhood and had been sincerly interested in her welfare. They had merely taught her poor methods of living. She illustrates the "outer" type of delinquency which is not truly psychiatric in nature. Other examples are numerous.

In Europe following the last war delinquency was rampant, but who could call the hungry child

who steals food a psychiatric problem? He may be delinquent but he does not have to be emotionally imbalanced. All these youngsters who commit delinquent acts but who are not psychiatrically ill, can be dealt with by means other than formal psychotherapy; particularly by means designed to relieve their real needs and to give them an environment which will help them learn accepted patterns of living.

The physician is concerned primarily with the child who shows a delinquent pattern as a result of inner psychopathology. I would like to mention here some of the most common psychiatric conditions which may lead to overt delinquent behavior. It should be borne in mind, of course, that although these will be presented as separate etiologies, one more often than not finds a combination present in the child.

Mental deficiency is not an uncommon contributing factor to delinquency. The child whose intellectual endowment is beneath that of his contemporaries is engaged in a chronic struggle to keep up with those around him. He often suffers from a feeling of inadequacy and is anxious to gain favor with his friends. If he happens to become associated with a delinquent group he can easily be persuaded into antisocial acts which he hopes will gain him favor with the rest of the group. Because of his mental deficiency he plans and executes these acts in such a way that he is often apprehended.

We recently saw in the Clinic a boy of ten years of age with a three-year history of a multitude of delinquent acts. He had stolen in school and at home as well as in the neighborhood. He had frequently become involved in fights, especially with smaller children. He was rebellious, antisocial and obstinate toward his parents and his teachers. Punishment, which had been frequent, had only seemed to make matters worse. The history showed that this boy had a seven-year-old brother and a five-year-old sister, neither one of whom presented any remarkable emotional problems. Both parents were intelligent and sincere, although neither seemed intuitive in understanding the emotional needs of their children—particularly this boy. Psycological examination revealed an IQ of 72. For comparison, examinations of his brother and sister revealed IQ's of 130 and 123. Other pychological tests, as well as the clinical examination, showed that this youngster felt himself to be inadequate, far beneath his brother and sister in lovability and that he deeply resented what he considered to be their superiority. His brother had progressed rapidly in school while he himself had had increasing difficulties in mastering the work. His resentment showed itself in his obstinacy and rebelliousness at home and he sought the companionship of boys who he felt accepted him more thoroughly. He then proceeded to perform delinquent acts at their urging and to gain their approval. In this case, the mental deficiency was an important cause of the developing character problem within the child. In many similar instances where a more intelligent younger sibling overtakes a mentally defective older one, aggressive and even delinquent behavior may result.

Psychosis at times is another underlying cause for delinquency. This, of course, implies a severe personality disturbance with serious distortion in ego functions. The psychotic child is unable to evaluate accurately the meaning of his environment and may sometimes react aggressively to it. Delinquency as the result of psychosis is not particularly common in earlier childhood but becomes somewhat more so during adolescence.

An example of this type of delinquency was seen in a fourteen-year-old girl who was referred because of acute outbursts of uncontrolled aggressive behavior occurring at home, school and even occasionally in the neighborhood. During these outbursts she became extremely difficult to manage and was physically assaultive toward her parents and schoolmates. She was often destructive to property, obscene in her language and had to be physically restrained. In the periods between these episodes she was a quiet, withdrawn, unsocial child with few friends and she seemed to live in a world all her own. Psychological testing and clinical evaluation revealed an essentially psychotic personality structure. Her ego control was poor and she was filled with tremendous hostility. She felt that everyone was against her and there were many paranoid elements in her personality. She made valiant efforts to control her aggression, but periodically under certain circumstances her control was shattered and the aggression poured forth with great force. Obviously with the psychotic delinquent, the psychosis itself is the important element and it dictates the therapeutic approach as well as the prognosis.

Another possible etiology of delinquent behavior is some organic condition such as a postencephalitic syndrome. Such a child often has a history

of relatively normal personality development and behavior adjustment until the organic condition occurs. Following this, there is a history of a marked change in personality, difficulty in control of instinctual impulses and the formation of a delinquent pattern. At times the organic process occurs very early in life so that the aggressive pattern seems to trace practically back to birth.

An example of this type of delinquency was seen in a boy of eight years of age referred to the Clinic with a history of numerous antisocial acts. He had beaten his little brother's head on the curb to the point of unconsciousness. He had on one occasion tried to stab his sister while she slept. On another occasion he had attempted literally to cremate a smaller child in the neighborhood. He was the frequent center of fights in the school yard. He often truanted from school and his referral to the Clinic was finally brought about when he shot another sister with a gun which he had stolen. The history revealed that he was the middle of eight children, all the rest of whom were relatively well adjusted. He had had a severe illness at the age of fifteen months with a high fever, convulsions and a period of unconsciousness. He had from that time on been difficult to control. He wandered away from home, showed a complete disregard for all rules and conformity and responded poorly to any and all types of punishment. His relationships were weak and tenuous and he behaved on a completely egocentric level. Neurological examination and psychological tests revealed the presence of diffuse organic brain damage.

The next type of youngster is one whose delinquent behavior is based upon an inner neurotic structure. These children are constantly plagued by a sense of guilt. In order to assuage this guilt they commit various antisocial acts in a manner that will lead to their discovery and punishment. The most marked characteristic of these youngsters is the fact that although they are intelligent and could undoubtedly get away with many things, they almost invariably leave some type of trail which leads to their apprehension and punishment.

A typical example of this type of delinquency is seen in a twelve-year-old boy referred to the Clinic for stealing money and cheating in school. The history showed that he had, on at least ten occasions, taken money from other youngsters and from home. Also he had taken small, relatively useless items from stores. There were at least a half-dozen times when he had been discovered cheating flagrantly in school. As a more detailed account of these various episodes was obtained, it became evident that this boy was unable to steal or cheat in a manner that would escape apprehension. He had, each time, arranged his own capture. For instance, it was discovered that although loose change was often lying around his own home, he stole only from one particular place where the money was always kept carefully counted. The teacher reported that his cheating in school was done in such a way that it could scarcely escape detection. The boy always received his punishment almost as if it were a relief and seemed genuinely sorry for what he had done.

This brings us to the last (and probably the largest) group of delinquents whose behavior patern rests upon inner psychic problems. These are the aggressive character problems which are often labeled psychopathic states when they occur in adults. These are youngsters who have a chronic fight with society. They are egocentric, immature, aggressive and live primarily on the pleasure principle. They want what they want when they want it and do not hesitate to take it from someone else. They suffer little guilt, and punishment only makes them more angry at society so they pursue more antisocial behavior. These are youngsters who have suffered a lack of warm parental love existing from early in life—often combined with excessive punishment. They have had no reason to love since they themselves were not loved. Conseqeuntly they remain infantile and love only themselves. They are childish, easily frustrated, unable to form stable relationships and do not learn from experience.

An illustration of this type of delinquent is seen in a fifteen-year-old boy brought to the psychiatrist by his wealthy and influential father. The boy had been a frequent offender for years. He had stolen repeatedly, had truanted and fought and had been expelled from four private schools. He had been accused of sexual approaches to several adolescent girls. On each occasion his father had used influence or money to get his son out of punishment. The boy was superficially pleasant, told only what he thought the psychiatrist already knew and obviously felt little guilt. If contradicted or forced to see something he would have preferred to overlook, he became belligerent. He obviously felt that he was right and everyone else wrong. He had no anxiety and was not uncomfortable. He

seemed to feel his rights were constantly being infringed upon and resented anyone correcting him.

This brings us to the important consideration of the parental role in responsibility for delinquency, especially of the psychiatric types. Considerable research[1] has produced evidence showing that in most of these cases there exists a conscious or unconscious parental approval of the delinquency. This statement might seem ridiculous to most parents and many physicians, but this is because they do not take into account the unconscious.

To give an example, let me briefly describe a "truant" although perhaps not a true delinquent. This eleven-year-old girl had missed more school than she had attended. Hers was a "good" family which was respected and apparently stable. Yet, as the psychiatrist gradually learned more about the home it was discovered that the mother did not like to be alone and in many ways felt uncomfortable when her daughter went to school. She frequently encouraged the child to stay home for minor illnesses and the daughter sensed this anxiety her mother felt when she attended school.

Parental contributions to delinquency are far more often on an unconscious rather than a conscious level. This means that they are quite subtle in their form. Neither the parent nor the child is consciously aware of the true state of affairs and it may be difficult to help them understand these unconscious factors. One father I know has repeatedly ignored warnings (and pleas) by neighbors and teachers and even psychiatrists that his son is seriously delinquent. The boy has stolen, lied, been destructive, truanted and been rebellious with his mother and even with his father. Yet this man states that he himself was this way at a younger age and then says, "Look at me now." The boy is aware of his father's permissive attitude toward his delinquency and somehow senses that this is one area in which he receives recognition from his father.

Thus, it can be seen, in summary, that the psychiatric aspects of delinquency are complicated. In some cases, a purely sociologic approach is sufficient. However, when the child's problem stems from emotional concomitants in himself or his home, a search must be made for the underlying cause of the behavior pattern and then appropriate steps taken to change this pattern.

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GENERAL PRACTICE AND PSYCHIATRY

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or community. Further, when I have called upon non-psychiatrically trained physicians to participate in mental health projects, they have accepted and worked with enthusiasm and effectiveness.

This, in general, is what we have been discussing today and gives an indication of the thinking at the national level and the possibilities at the local level.

It is my hope and sincere desire that you of the Michigan branch of the American Academy of General Practice and we of the Michigan Society of Neurology and Psychiatry (which is a district branch of the American Psychiatric Association) could have a joint committee similar to that functioning on a national level to develop the program to meet our needs. I would sincerely hope that your Academy would entertain such an action committee. I can assure you of the co-operation of our Society.

Summary

In summary, there is a definite movement afoot between psychiatry and general practice, at the national level, for the exploration and encouragement of the closest relationships—particularly in the area of the training and teaching of psychiatric material to the generalist.

We need to encourage the existing programs we have in our state and I strongly urge that we begin a hospital seminar program in our hospitals. An action committee to set such pilot programs in motion would be highly desirable.

Multiple Sclerosis

A Physiatric Approach to Management

By Kathryn J. McMorrow, M.D., M.P.H.

Detroit, Michigan

MULTIPLE SCLEROSIS is the most common disease of the human central nervous system. Characterized as it is by remissions and exacerbations, it often poses a difficult diagnostic problem to the physician. It is a disease of young adults with its peak age of onset in the third and fourth decades of life. Because we presently do not know the etiology, nor do we have a specific treatment, it is necessary to treat multiple sclerosis symptomatically. This requires an evaluation of the disabilities and a program of management which the patient can understand and to which he can lend his wholehearted co-operation.

The National Multiple Sclerosis Society estimates there are 10,000 patients in the state of Michigan, based on national figures of incidence. This is probably a minimal figure because it is also estimated that the prevalence in the Great Lakes area is seven times that found in the same latitudes, both in the United States and in Europe. This disease is not a killer but it is productive of severe disability and must be considered in the category of a chronic illness. The patient does have 85 per cent of a normal life span. Therefore, any approach to management must consider the emotional, social and vocational problems, which do arise in its management along with those of a physical nature.

Fatigue is the most prominent complaint of the patient and, for the physician, it is difficult to deal with. That patient is especially trying who has an associated character disorder, or when members of his family believe the complaint of fatigue is used as a method of control. These two latter considerations do require, in addition to counseling by the family physician, both psychiatric casework and family counseling services. Without their resolution, the physician will be frustrated in his management because he cannot secure either the patient's co-operation or that of the family. A useful rule of the thumb in dealing with the problem of fatigue is an explanation of the "energy budget." A sincere explanation by the physician as to why one does not spend next week's budget for necessities on this week's desires may suffice to keep the patient from overdoing to his own disadvantage.

Ataxia is another disability which the physician is called upon to manage. Careful observation of patients with ataxia suggests these results in those who are not maintained on physical treatment: First, the hip flexor muscles become weakened because of the wide based gait the patient attempts for stability. Then, an increase of lumbar lordosis occurs with tightening of the lumbosacral fascia. As a direct consequence of this, both the gluteus maximus and the gluteus medius muscles become overstretched and weak. This further impairs ambulation. Some patients will use canes to improve balance, but the large majority will, at this stage, spend much more time in a sitting or lying position. We then have a general deconditioning of all the musculature of the body. This includes the less efficient use of the respiratory muscles and an increase of fatigue because of the diminished pulmonary reserve. The patient with ataxia should be placed on a program of physical treatment within his individual tolerance to fatigue.

The program of exercises in this symptom complex is as follows: (1) Stretching of the lumbosacral fascia, (2) Straight leg raising, (3) Pelvic tilting, (4) Quadrupedal balance, (5) Squatting balance and (6) Progressive resistive exercise for gluteus maximus and medius muscles. Naturally, during an exacerbation, the patient should be kept on strict bed rest.

A third disability arises as soon as pyramidal tract deficits occur. When the anterior tibialis begins to tire and lose its function and clonus becomes troubling, a properly constructed short leg brace can do much to keep the patient ambulating satisfactorily. The stirrup-type brace, with a spring pickup and a T-strap to control supination, has proved to be adequate. The orthotist, however, must be cautioned that there is to be allowed no plantar flexion; otherwise the troubling clonus will continue to be present. The spring should allow 15 degrees of dorsi-flexion and the T-strap should

be sewed between the insole and the upper part of the shoe for control of the spastic inversion of the heel during the swing phase of the gait. Stretching of the heel cord and other spastic muscles should become routine early in management.

The patient who has developed spastic paraplegia has a much more severe disability and, consequently, management is far more difficult. The goal for the patient who also has weakness and tremors and inco-ordination of the upper extremities is, in fact, the wheelchair. This patient should be taught wheelchair activities of daily living.

The patient who has a good trunk and little or no involvement in the upper extremities can be helped. Stretching of the spastic muscles and strengthening of the upper extremities, including the trunk and the latissimus dorsi, are of prime importance. An appliance known as the Keystone Splint allows the spastic patient to stand supported in the ischial region. Ambulation in parallel bars will result in strengthening of the pelvic musculature and the lower abdominal muscles while wearing the Keystone Splint during a period up to six months. Generally this patient can then be ambulated with conventional crutches and short leg braces.

A fourth symptom very troublesome to the patient and the physician is that of bladder control. Frequency, urgency and incontinence not only are fatiguing to the patient, but can also result in social isolation and the loss of employment. Bladder infection is common. Every patient should have a urological workup, including cystometrograms, which will distinguish the type of bladder the patient has. Strengthening of the perineal musculature either through muscle re-education or through the use of the perineometer should be attempted at the first sign of frequency because urinary symptoms often are the result of poor muscular tone in the pelvic floor. Bladder stones also are not an infrequent complication of the urinary problem in these patients. Where long periods of non-weightbearing have occurred. osteoporosis may be present along with the osteomalacia and, therefore, hormonal therapy may be required.

The sensory deficits which do result in multiple sclerosis have proved to be impossible of any rational management. Phanodorn® may be of benefit in the severe tremors in certain individuals. However, there is no way of determining, without a trial, which individuals will respond. The use of functional occupational therapy can assist in the improvement of the co-ordination of the upper extremities. Nevertheless, treatment of these symptoms remains frustrating.

Many patients with severe inco-ordination and intention tremor of the upper extremities do become malnourished. The physician, confronted with the management of such patients, should take care to elicit the type of nutrition the patient is receiving. Not uncommonly a woman may literally starve because she cannot communicate her needs to her family. This is particularly true when the job of feeding is left to unsupervised children while the husband is working, or has abandoned his wife and family.

Constipation with fecal impaction also is a troubling symptom which must be managed. It is far more common than bowel incontinence in the patient with multiple sclerosis.

A few of the appliances which do help in activities of daily living for the multiple sclerosis patient are:

1. A collapsible wheelchair. This wheelchair should have at least foot plates, hand rims and hand brakes. Prescription of 8-inch casters rather than the conventional 5-inch casters will allow the patient to turn in a smaller area of space. This is especially helpful in toilet activities.
2. The standing table is a vital part of the equipment for the patient. It is expensive to buy, but easily constructed by an interested relative. Some time is spent each day in the standing table. This has the beneficial effect of reducing negative nitrogen balance and improving both the equilibratory and neurocirculatory reflexes in those patients who can no longer ambulate.
3. A porta lift is an especially helpful piece of equipment for the bedridden patient, or one too heavy to be lifted from his wheelchair to bed. It allows one person to do what normally would be required of two.
4. All canes and crutches should have suction tips which improve the stability both of the patient and the appliance.
5. A bedside commode is helpful in lessening the need for linens and for laundry service. This is especially true where the patient has urgency but is not truly incontinent.

The final portion of this paper will deal with some of the commonly met emotional, social and vocational problems with which the physician is often called upon to assist.

It is important to the patient with multiple sclerosis to feel that he has access to his physician for answers to the questions which beset him. The patient, generally, is anxious concerning the disabilities which take him to the physician in the first place. He is anxious concerning what multiple sclerosis is, and what effect it may have on him and his family. He is anxious whether he can hold his job. He is anxious about the whole host of drugs, and kinds of treatment to which he may be exposed. These questions do require straightforward but sympathetic answers.

Patients will, from time to time, become depressed. They will tend to isolate themselves from their family and friends. Not uncommonly they will have problems in the discipline of their children because of the fatigue factor and other physical limitations. The family doctor will find staunch help through pastoral counseling in these kinds of situations. Specific social casework services are often indicated, and referrals to local family service and other casework agencies will prove fruitful sources of assistance.

Visual difficulties do much to throw the patient back on his own inner resources. When reading, television and the movies can no longer be enjoyed because of the visual difficulty, the patient may resort to telephoning his physician to cope with his anxieties. Referral to "talking books," which are available in most libraries, will save the physician a great deal of time in dealing with these calls. A short note by the physician to the State Bureau of Social Aid can bring assistance to the patient through Aid to the Blind. The physician can remind the breadwinner that the Department of Internal Revenue does allow a second deduction where blindness is present.

Advice to the patient and his family concerning Social Security freezes, Aid to the Disabled and Aid to Dependent Children will be deeply appreciated. Referral to the State Office of Vocational Rehabilitation may help some of the patients with multiple sclerosis to benefit from the medical and vocational rehabilitation programs carried out by this division of the State Department of Public Instruction. These are all legitimate sources of help for the physician and his patient and they should be used. To suggest their use early may prevent a state of medical indigency with the consequent loss of the basic patient-physician relationship so vital to the patient.

Not infrequently, with the patient's permission, a frank discussion by the physician with the employer will help a patient to continue gainful employment. The patient will actually quit his job long before this would be necessary rather than ask for minimal concessions from his employer. Such simple things as the request to park his car closer to the employment facility are definite considerations which the employer usually can understand, and to which he will quite readily agree. Finally, the physician can benefit materially in a sustained program of management through the services of the visiting nurse or health department. This is especially true in those communities where a home care program has been developed. For example, in the Metropolitan Detroit area the Visiting Nurse Association does have available to the practicing physician nursing services, physical therapy according to the doctor's prescription, occupational therapy and even homemaker's services. The latter kind of service is invaluable when the patient may require hospitalization for a short period of time.

The entire concept of patient care is changing. Chronic illness, of which multiple sclerosis is a conspicuous example, requires the increasing cooperation of the family physician and those people in the community who can work with the physician to the advantage of his patient. The busy practicing physician cannot use his time to integrate and correlate these various kinds of services. However, because he is ultimately responsible for the care which the patient does receive, he can initiate these specific adjuncts to management. Unless he does this, his patient may seek out nostrums and cultist kinds of treatment, which may result in complete medical and social indigency.

To summarize in the management of the patient with multiple sclerosis, the physician-patient relationship is of primary importance. The physician is responsible for initiating the use of existing community resources necessary for his patient. The many problems arising in the course of a long-term illness such as multiple sclerosis have been discussed. The emotional and social factors inherent in the chronicity of multiple sclerosis are as important for the physician to manage as is the physical disability.

Michigan Multiple Sclerosis Center
1800 Tuxedo
Detroit 5, Michigan

Midline Incision for Cholecystectomy

By Millington O. Young, M.D., F.A.C.S.
Detroit, Michigan

THE PURPOSE of this brief report is to call attention to two facts: (1) unexcelled exposure of the extrahepatic biliary system is obtained via a high midline incision and (2) unequaled ease of performance of the various technical maneuvers of biliary tract operations is obtained by use of the high midline incision with the surgeon standing on the patient's *left* side.

Cholecystectomy is the most common upper abdominal operation. Surgical custom dictates that the operator stand on the patient's right side and use a right vertical or subcostal incision. It is also customary to advise against changing a method or procedure that has proven satisfactory in achieving the desired results. Nevertheless, it is believed that surgeons may be interested in the better exposure and increased technical ease made possible by standing on the patient's left side and working through a midline incision. These benefits should be even more apparent to the left-handed surgeon and to the surgeon who works with only one assistant.

In recent years, the midline incision has become increasingly popular for upper abdominal operations. However, none of 562 surgeons responding to a questionnaire indicated they used a midline incision for cholecystectomy.[3] This incision has several advantages. It is easier and quicker to open and close. No muscles or nerves are transected with the result that the patient experiences less discomfort during the postoperative period and permanent damage to the abdominal wall is minimal. The higher location of the incision with respect to the costal arch reduces the chance for dehiscence since the tension exerted is less at this level and the liver underlies a good portion of the incision. It is interesting to note that a majority of textbooks of surgical anatomy and atlases of operative technique depict the anatomical structures in the region of the hepatoduodenal ligament as viewed from the patient's left side.

From the Department of Surgery, The Riverside Clinic, Detroit, Michigan.

In 1954, Moore [1] reported his experience using the midline incision for fifty-six biliary tract operations. The excellent exposure of the structures of the hepatoduodenal ligament obtained when cholecystectomy had been performed with gastrectomy via a midline incision had been noted and led to the routine use of this incision for operations on the biliary tract. Exposure was good in all instances, regardless of the patient's obesity or the size of the costal angle. Saint and Braslow[2] described the beneficial effect of removal of the xiphoid process in increasing the lateral retraction of the wound margins. In the occasional instance where additional exposure is required, this brief maneuver is most helpful.

Stimulated by these reports, I have used the midline incision routinely for upper abdominal operations.[4] Additional experience using this incision for biliary tract operations has led to the conclusion that its many advantages deserve wider notice. The surgeon, standing on the patient's left side, inserts a self-retaining retractor. A deep blade attachment is used to retract the padded liver upward. A folded pad is placed over the duodenum which is pulled downward using a broad malleable (or other suitable) retractor held by an assistant. A pad is inserted to displace the hepatic flexure and any small bowel on the right and, if necessary, another is used to displace the stomach on the left. This allows an excellent view of the tensed hepatoduodenal ligament. The fundus readily comes into view when traction is made on the gall bladder. The latter is usually removed from below upward after injection of its bed with saline. Drains and tubes are brought out via a small stab wound through the upper end of the right rectus muscle. The single thick fascial layer is closed with interrupted figure-of-eight sutures of 00 serum-proof silk. Stay sutures have not been used.

There have been no wound complications in seventy cases in which this incision has been used for cholecystectomy and/or choledochostomy.

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A World of Medicine

International Newsletter No. 2

By Robert Hodgkinson, M.D.
Detroit, Michigan

A PHYSICIAN'S graduation may be dated by his familiarity with the viruses. This provocative statement serves to emphasize that few aspects of medicine have progressed in such steady, well defined steps during the past half century as the growth of virology. By 1910, four diseases (poliomyelitis, rabies, smallpox and yellow fever) were known to be caused by viruses. By 1920, a further four (chickenpox, measles, warts, herpes zoster and simplex) had been added to the list. Little progress was made in the twenties, but by 1940 mumps, rubella, influenza, psittacosis-lymphogranuloma infections and encephalitis (St. Louis, Japanese B and Russian Far East) had been shown to be of viral etiology as were infectious hepatitis, serum hepatitis and epidemic viral gastroenteritis ten years later.

In the 1950's, attention has been focused on the Coxsackie, the ECHO and the adenoviruses. The Coxsackie viruses are responsible for Bornholm's disease (epidemic pleurodynia) and probably for aseptic meningitis[3,6,10,11] and some cases of summer diarrhea. James Gear and his co-workers in South Africa, as well as other workers,[13] have shown these viruses to be the cause of a highly dangerous form of myocarditis frequently associated with encephalitis and meningitis. The Coxsackie viruses can frequently be isolated from the intestinal tract in both health and disease, there are at least nineteen antigenic types divided into group A and group B strains, and they are cytopathogenic (that is, they have the capacity to injure the cells in which they multiply during experimental propagation).

ECHO viruses are also found in the alimentary tract and are cytopathogenic. There are at least fourteen types. ECHO, an abbreviation for enteric-cytopathogenic-human-orphan, was a term devised to clarify earlier terminology. Their rôle in human disease has not been defined, but they are probably responsible for a proportion of cases of non-paralytic poliomyelitis and can cause diarrheal and respiratory disease.

Interest at the moment is concentrated on the adenoviruses (APC, RI or ARD viruses) which are responsible for a substantial proportion of undifferentiated respiratory diseases. At least fourteen serologically distinct adenovirus types have been established, of which twelve have been recovered from the human. Types 1, 2 and 5 occur chiefly during infancy and early childhood, whilst other types are most frequently "unmasked" from the adenoids and tonsils. They can cause an acute febrile pharyngitis similar to that caused by the influenza and hemadsorption viruses. Types 3, 4a, 14 and more rarely others cause pharyngo-conjunctival fever, a five-day illness occurring endemically and in sharp outbreaks. Types 4 and 7 are responsible for a considerable amount of acute respiratory diseases in military recruits. Type 8 has been associated with epidemic conjunctivitis. Virus pneumonia and acute follicular conjunctivitis have been attributed to other types. Serological evidence from widespread areas indicates that man is commonly infected with adenoviruses. They are readily spread from person to person. Disease has been successfully transmitted by bacteria-free nasopharyngeal secretions and by direct inoculation of types 1, 3, 4 and 5. Volunteers having specific antibodies are resistant.

The adenoviruses were responsible for an epidemic of pharyngo-conjunctival fever which started in Hamburg and spread south through Germany and into Switzerland in late 1955.[5,7] Viruses of serological type 6 were isolated in one group of 143 cases but one type accounted for ninety-two of the cases.[13] The disease presented as a high fever of acute onset lasting for about a week, associated with severe inflammation of the nose, throat, conjunctiva and with leukopenia. Conjunctivitis was seen in about a third of those affected, and the conjunctiva was red, edematous and granular. Half the patients suffered from nasal obstruction. The tongue resembled the strawberry tongue of scarlet fever, and enlargement of the lymph glands was common. Cough was conspicuous by its absence, and chest complications did not occur. School children between the ages of

five and sixteen were mainly affected. Some patients complained of vomiting, diarrhea, abdominal pain and this led to diagnoses of typhoid, dysentery and appendicitis; others showed headache, neck rigidity and convulsions suggesting a diagnosis of poliomyelitis or meningitis.

In the course of a trial of an influenza vaccine in Holland[4] amongst 2,000 factory personnel, 168 persons developing acute respiratory disease were investigated virologically and serologically. About 20 percent were found to be suffering from influenza B infection, and in most of the other 80 per cent there was a fourfold rise in titre against the adenoviruses. Morbidity was 15 per cent among the 1,000 influenza-vaccinated persons and 11 per cent in the 1,000 non-vaccinated. Complement fixing and neutralizing antibodies were also widely distributed in sera collected in Yorkshire, England.[1] Of 223 paired sera from patients suffering from acute respiratory disease studied by B. Balducci and his co-workers, twenty-four showed arise in complement fixing antibody titers.

Adenoviruses have been shown to be the cause of some outbreaks of epidemic keratoconjunctivitis, but other agents may also be involved. Wright, in 1930, demonstrated inclusion bodies in the corneal scrapings from patients in an outbreak in Madras. In 1941, Sanders claimed to have isolated a virus later shown to be variant of the St. Louis encephalitis virus from the epidemic of shipyard fever which occurred on the west coast. Recently, Fowle and her colleagues in Canada and Jawetz and his associates[9] in California have succeeded in isolating adenoviruses from patients. In Canada, it appears that type 3 was responsible and in California, type 8. Sera from patients in Japan, Italy, Switzerland and North America have been shown to contain neutralizing antibodies to type 8, whereas such antibodies are absent from the general population. Complement fixation tests indicated that an outbreak on the Clydeside in Scotland was probably caused by the adenoviruses.

Both formaldehyde- and heat-inactiviated adenovirus vaccines have been prepared.* In a controlled trial, 4,000 naval recurits received a formaldehyde-inactivated vaccine of types 3, 4 and 7. A substantial rise in the titre of serum antibodies was demonstrated, and there was a marked reduction in the incidence of febrile illnesses and diseases requiring admission to hospital. Type 4, but not types 3 and 7, adenovirus infections were prevalent at the time.[2] From field trials, it was concluded that the volunteers with antibodies, either induced by vaccine or naturally acquired, experience a much greater protection against infection. Types 4 and 7 adenovirus vaccine has been shown to be effective one week after injection[12] and maximum antibody levels to be reached in two weeks.[8] Two injections did not appear to give a higher titre than a single inoculation.

*A formaldehyde inactivated vaccine is now available commercially.

World Health Organization

The World Health Organization expert committee on rabies, which met at the Pasteur Institute in Paris at the end of 1956 under the chairmanship of Dr. Pierre Lépine, concluded that serum therapy combined with a vaccine was the best available treatment. The injury should be cleansed and cauterization with nitric acid and serum injected round the bite. Those exposed to rabid animals should be protected with chicken embryo or nervous tissue vaccine and be given a booster dose if bitten.

In Iran, it had previously been decided to investigate anti-rabies vaccine combined with hyperimmune serum for human beings bitten by suspected rabid animals. A separate study demonstrated that hyperimmune serum increased antibody titres in volunteers. In August, 1954, a rabid wolf attacked twenty-nine of the inhabitants of the small Iranian town of Sahané before being killed. The patients were quickly transported to the Pasteur Institute in Teheran. Eleven of the twenty-nine patients bitten on the limbs or trunk recovered whether treated with vaccine alone or with the addition of serum. Of the remaining eighteen with head injuries, three of the five given a twenty-one-day course of vaccine alone died, whereas of the thirteen given serum in addition to the vaccine only one, who had received only a single dose of serum, died. The mortality from rabies after wolf bites on the head has previously been shown to be 60 per cent in untreated victims and 28 per cent for those receiving vaccine.

Israel had also been previously selected for the trial of a living antirabies vaccine for dogs because of its well-organized public health service and the high incidence of the infection in animals. The vaccine had been proved earlier to have a powerful immunization action, to be harmless for dogs and to confer immunity for three years or more, thereby showing its superiority over inactivated vaccines.

A similar vaccine has been used for the vaccination of South American cattle subject to the bites of rabid bats and in Malaya. Ninety per cent of all dogs in Israel were vaccinated and other control measures such as the destruction of stray dogs and jackals undertaken. The incidence of rabies was at first markedly reduced, but in 1954 there was a sharp increase. However, of the thirty cases reported in dogs, none occurred in vaccinated animals.

Other countries involved in the rabies campaign were Latin America where the vector is the vampire bat, Canada where there has been a heavy epidemic among foxes, wolves and other wild animals, and Southern Rhodesia where jackals have been shown to transmit the infection. In India, 150,000 people have to be treated annually with anti-rabies vaccine following bites. Great economic loss is caused through sheep, cattle and other valuable livestock being bitten. In the United States, even bats which feed on insects and fruits have been found to be infected, and since 1953 about 100 cases of rabid bats have been reported. Three of these bit human beings. Bat surveys in various countries are being encouraged by the World Health Organization, so that more information on transmission can be accumulated. The bulldog-faced vampire bat is feared in Trinidad, although it bites mainly cattle. Although a number of countries have succeeded in eliminating rabies, increased international communication makes the presence of this or any other infectious disease in one country a potential threat to all others. Rabies was common in the United Kingdom in Napoleonic times, but it has since been eliminated by a strict quarantine. The first case of rabies since 1911 in the British Isles occurred in May, 1955. The man who died had been bitten in Pakistan two months previously.

Europe

Dr. G. Rath, of the Institute of the History of Medicine of the Bonn University, recently discussed the modern diagnosis of historical epidemics. Medical knowledge and terminology have been subjected to continual change and the same disease may appear very differently to an observer who considers disease on the basis of, for instance, a faulty mixing of the humors. Also, in many cases, past epidemics have been described only by lay people.

The term plague has been used to describe any overwhelming epidemic causing many deaths, and it therefore includes a multitude of diseases. We have, for instance, the "plague of Homer" of which even a tentative diagnosis is difficult, the "plague of Thucydides" which might be any of the infectious fevers, and the "plague of Antonin" which ravaged the Roman empire during the second century A.D. and caused Galen to flee from Rome and desert his patients. The first accurate objective description of true bubonic plague is not a physician's report but was written by the historian Prokopios in connection with the "plague on Justinian" which occurred in Constantinople during the sixth century A.D. After the "Black Death" of the 14th century, which was described by Guy de Chauliac, plague was very clearly defined.

In the 15th and 16th centuries, two new epidemics occurred. "English sweat," or as it has been alternatively called the "French disease," "Lenticulae" or "Petochial fever," started in England and invaded the continent in epidemic form in 1529. In was characterized by fever, headaches, somnolence and particularly by a drenching sweat. It was probably a virus infection but has not been described since. The other was the disease referred to as the "French disease" or "Morbus Gallicus," which has usually been considered to be syphilis. The prolonged controversy as to whether it was brought from America by Columbus or whether it existed in Europe before his time was given a new perspective about twenty years ago by Essed, a Dutch physician. He suggested that Morbus Gallicus was not syphilis but yaws. Reading through the reports without bias, the modern diagnosis of the French disease would certainly be yaws. It is a highly infectious disease characterized by discharging skin lesions, evil-smelling pus, severe bone and joint pains, extensive destruction of the nose and face and, like syphilis, has three stages.

Central and South America

The British Caribbean territories extend in the form of an arc of over 2,000 miles from British Honduras in Central America to British Guiana in South America. Between these two points lie the Cayman Islands, Jamaica, the Leeward and Windward Islands, Barbados, and Trinidad. These widely separated islands and mainland territories have close historical, cultural and economic ties. The surrounding sea markedly modifies the

tropical climate of the islands, and all have similar problems. The population is largely descended from African negroes, only 5 per cent being of unmixed white descent. Bananas, sugar and citrus fruits are common to all. Only Trinidad has rich supplies of oil and asphalt.

Improved medical care has resulted in a rapidly growing population, and the economy has difficulty in both absorbing these and increasing living standards. The excess of births over deaths is 25.3 per thousand, and the infantile mortality has fallen to 77 per thousand. Birth control is difficult since the average native believes a large number of children is an index of virility. The incidence of malaria is falling, and eradication is possible. Mortality, but not morbidity, from tuberculosis has declined, and mass vaccination campaigns have been completed in five territories. Mass treatment for yaws, which a sample survey showed an incidence of about 4 per cent, is under way in some islands. Paralytic rabies in cattle is increasing due to reintroduction from the main foci in South America.

Jamaica is the largest and richest of the islands with a booming tourist industry, large deposits of bauxite, profitable banana, rice and sugar plantations and increasing industrialization. Described by Columbus as "the fairest land that eyes have beheld," its people are relatively healthy, prosperous and have over a 70 per cent literary rate. The chief city of Kingston (population 155,000) is a logical choice as the capital of the projected Caribbean Commonwealth.

In 1945, the University College of the West Indies was established in Jamaica. Both preclinical and clinical instruction are given to medical students, and graduates receive a degree from London University. The Caribbean advisory committee for medical research was recently created, and close ties were established with the East and West African Councils for Medical Research and the Medical Research Council in London.

At a recent scientific meeting, papers covered a wide range of topics. The Regional Virus Research Laboratory in Trinidad reported the isolation of the Mayaro virus and the demonstration of two antibodies in the blood of the local inhabitants. Dr. G. Giglioli described studies he had made on mosquitoes in British Guiana since 1923. Anopheles darlingi has been shown to be the only vector of practical importance, and the acidity of the water in some areas prevents breeding. By names of DDT, malaria had almost been eliminated from this country since the war. Difficulties in the diagnosis of yaws were discussed. Serological reactions were of little assistance and a large proportion of lesions were not recognized as such. Experimental work indicated the root of hair follicles as a source of patent infection during remissions. Two locally occurring diseases were described: veno-oclusive disease of the liver in infants and a neuropathic syndrome in which there was upper motor neurone damage, damage to the first sensory neurone, rectrobular neuropathy and eighth nerve deafness. Lymphogranuloma venereum, bone and joint diseases, sickle-cell anemia and filariasis were also discussed.

The nature of vomiting sickness of Jamaica, which has been the cause of many deaths in children suffering from malnutrition between the ages of two and ten, was also the subject of a paper. The ackee tree has long been suspected as a possible cause. Its arillus is a favorite food in Jamaica and tastes like a fatty variant of roast chestnut. Following thirty-two deaths in St. James in 1951, an investigation was initiated and hypoglycemia was demonstrated in some cases. Later, two new polypeptides, hypoglycin A and B, capable of producing fatal hypoglycemia in laboratory animals were isolated. Following a survey of medical plants in Jamaica, a number of bush teas were tested clinically in the treatment of diabetes. None produced hypoglycemia. Extract of ackee was not tested owing to inadequate supplies.

South East Asia

Dr. C. Mani, Director of the World Health Organization Regional Office for South-East Asia, gave a broadcast recently over the India radio on the amount spent by South-East Asian countries on health. He stressed the point made many times before—but still requiring continual repetition—that the direct economic gains resulting from health schemes is far greater than the investment required to carry them out. In Thailand, approximately 10 million work days were lost each year, until very recently, due to malaria. This meant an annual financial loss of not less than 100 million baht—a sum fifteen to twenty times higher than the entire yearly budget needed to bring the disease under control and eventually to eradicate it completely.

Many countries in this area are rapidly increasing their investment in health. Ceylon has in-

creased its health expenditure five times during the last twelve years until it accounts for 2 per cent of the total national budget. The second five-year plan in India calls for an expenditure of 2,600 million rupees as compared with 1,200 million rupees under the first five-year plan. Of equal importance to the amount spent is how it is spent. It is tempting to lavish huge sums on the construction of showy buildings, such as hospitals when a greater return could be obtained by the use of prophylactic measures and mass treatment campaigns. Possibly the biggest problem in this area is the shortage of health workers. Whereas, countries in other parts of the world have one physician to every thousand of the population or more, no country in Asia has more than one for every 5,000 to 6,000 and many only one to 60,000 to 70,000. The shortage of nurses, midwives, sanitary engineers and health educators is even more critical.

The *Manila Times* of January 15, 1957, quotes Dr. Horace Delien, of the public health service, in confirmation of the lack of nurses in the Philippines. Instead of a ratio of one public health nurse to every 5000 of the population, there is only one to every 23,500. The shortages are accentuated by an uneven distribution which means that some areas are served by only one nurse to every 100,000 by the expanding rural health program, by the new anti-tuberculosis program encouraging home nursing, by the mushrooming of private and public hospitals, and by a population increase of 400,000 every seven years (in a population of 21 million).

Australia

There is an old belief that "primitive" races have less developed color vision and that many pigmented people have an insensitivity to blue. It appears, however, that this is largely a deficiency in language rather than vision, for in undeveloped languages many colors have no names of their own. The name of some associated object is used, or one word is used for several colors. For example, among the inhabitants of Upper Egypt, the word for milk is used for light colors and blue, and the word for yellow may be applied to green, light brown and faint red.

In an article on color vision in the native races in Australasia, Drs. Ida Mann, of Perth, and Dr. Cecil Turner, of Port Moresby, Papua, observe:

"This belief is probably based on old fallacious notions of an increasingly adequate color discrimination becoming developed as one climbs up the phylogenetic tree. Since we now know that man is nowhere near the top of this tree in specialization, and that color vision appears at intervals throughout the taxonomic scale, beginning certainly in the Teleostein fishes and possibly in the Holosteans (Walls) there is no argument left for the belief that the more primitive a race, or indeed a species the less its powers of hue discrimination."

In the course of three surveys to determine the incidence of eye disease found in Australasia, the opportunity was taken to test the people with the Ishihara color test. Results based on tests on over 500 white male subjects and over 4,000 aboriginal male subjects show that the incidence of defective color vision was 7.3 per cent in white Australian male subjects, 1.9 per cent in aboriginal male subjects and 3.2 per cent in half castes. Native races, therefore, appear to have a better color vision than the white population of Australasia. The only exceptions were noted in some isolated islands where reports of a high incidence of defective color vision may have been due to inbreeding.

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Some Medical Aspects of the Social Security Disability Insurance Program

By Roger J. Hanna, M.D.
Lansing, Michigan

SINCE THE INDIVIDUAL physician is the key man in any disability determination, it might serve a useful purpose and promote a better understanding of the program if I were to give you a few definitions and concepts of disability in relation to the Social Security Act.

The law says an individual is under a disability if he is blind or unable to engage in any substantial gainful activity by reason of a medically determinable physical or mental impairment. The impairment must be one that can be expected to be of long continued and indefinite duration, or to result in death.

An applicant is unable to engage in any substantial gainful activity if he is incapable of performing substantial service with reasonable regularity in any employment or self-employment, by reason of an impairment sufficiently severe to be the cause of inability to work. An individual who is unemployed by reason of economic conditions, unavailability of jobs, or unwillingness to work is not disabled by reason of his impairment. Factors unrelated to the employment capacity of the applicant which limit his availability for the labor market usually will not be relevant to a determination of disability. Family responsibilities, widespread unemployment, housing, etc., are examples of such factors. Inability to engage in substantial gainful activity must result from the impairment and its effect on the applicant's employability and not from other causes.

The law requires that the physical or medical impairment, which results in an inability to engage in any substantial gainful activity, be a medically determinable impairment. This means that the condition should be one that can be determined by a physician. It is the expressed intent of Congress that a finding of disability be based on medical facts, particularly those aspects of the determination that relate to the nature, extent and curability of the impairment.

A physical or mental impairment must be one that can be expected to be of "long-continued and indefinite duration," or that can be expected to result in death, and applied to a condition that has lasted at least six months and for which no approximate date of improvement or recovery in the future can be determined with reasonable certainty. This requirement relates only to the impairment and not to the effect of the impairment on the applicant's employability. In fact, it is hoped that a significant number of persons under a disability will be restored to employability by a relative short period of rehabilitation services.

The Senate report on the disability amendments states "an individual would not meet the definition of 'disability' if he can, by reasonable effort and with safety to himself, achieve recovery or substantial reduction of the symptoms of his condition." Impairments falling within this intent are called "remedial conditions" and diabetes, hypothyroidism, cholelithiasis, fractures, and cataracts would ordinarily be examples of a few of the conditions falling within this category.

Over 14,000 applications for disability benefits have been filed to date in Michigan, and they are presently coming in at the rate of about 1,200 a month. Good adjudication in the light of the foregoing concepts is of tremendous importance in protecting the integrity of the insurance fund and our economy, as well as being fair to the applicant. The understanding and co-operation of the medical profession is most necessary in maintaining determinations on a sound professional basis and in continuing to operate through the agency of physicians in the private practice of medicine.

Read at the Third Postgraduate Seminar in Physical Medicine and Rehabilitation, Bay City, Michigan, October 9, 1957.

Dr. Hanna is Review Physician for the Disability Determination Section, Office of Vocational Rehabilitation, Lansing, Michigan.

Wayne State University College of Medicine

Seventh Annual Symposium on Blood

January 17-18, 1958

CORRECTION OF DEFECTS IN EDTA BLOOD MAGNESIUM AND OTHER DIVALENT CATIONS

MARJORIE B. ZUCKER and JENNIE BORRELLI
Sloan-Kettering Institute for Cancer Research, New York City

Blood collected with disodium ethylenediamenetetraacetate as anticoagulant differs in the following respects from native, oxalated or citrated blood. It exibits a long thrombin clotting time, very rapid disappearance of factor V, no adhesion of platelets to each other or to glass, conversion of the platelets to spheres from their normal disc shape, and no retraction of clots formed by thrombin in the presence of platelets. But if $MgCl_2$ is added to fresh Na_2EDTA, platelet-rich plasma, or if MgEDTA is used as an anticoagulant instead of Na_2EDTA, these abnormalities are not seen. The addition of $MgCl_2$ to incubated EDTA platelet-rich plasma will restore the thrombin clotting time but will not increase the factor V concentration. The concentration of magnesium required to accomplish these changes is calculated to be a fraction of a millimole per liter less than one-tenth the concentration of calcium necessary to produce a normal clotting time. Similar small quantities of calcium, barium and strontium can correct the abnormalities of Na_2EDTA blood as well as can magnesium. However, the effect of calcium and perhaps of strontium may be attributed to liberation of magnesium from its EDTA complex. Since barium and strontium are not normally present in appreciable quantities in blood, it is suggested that magnesium may play an important role in the maintenance of a normal thrombin clotting time, factor V stability, platelet disc shape, platelet agglutinability and adhesiveness to glass, and clot retraction.

CLOT RETRACTION, A BRIEF LITERATURE SURVEY

G. BALLERINI
Institute of Medical Semeiology, University of Ferrara, Italy

For a normal development of the clot-retraction phenomena, fibrinogen, thrombin, platelets and calcium ions are necessary. But for some years it is supposed that also some plasma or serum factor(s) is also involved. Some factor(s) concerned with clot retraction can be adsorbed from plasma with barium salts and eluted. From this eluate it is not only possible to isolate a fraction promoting clot retraction but also others which have an inhibiting power on the same process.

An efficient dialysis of plasma produces a deficiency in clot retraction when platelets, thrombin and calcium ions are present and the addition of the dialysate to the dialysed plasma restores the contractile capacity. The function of the dialysate is relative to the glucose content but as the addition of glucose in different concentrations induces in the plasma only a partial or delayed retraction, it has to be assumed that unknown factors are present in the dialysate and probably are necessary for the utilization of glucose in the plasma-platelet system during the clot retraction process.

The important role of platelets has also been analyzed. Aging, storage, ultrasonic treatment are retarders of the favorable action of platelets on the clot retraction. But the possibility of extracting a hypothetical active principle(s) from the platelets in this process is still under consideration. The retractile property is said to be present only in the hyalomere. A lipid substance ("retractin") of platelet extracts is reported to be able to promote clot retraction. The dialysis of platelets induces the loss of platelet contractile property. In this dialysate the platelet vasoconstrictor factor (serotonin, 5-hydroxytryptamine) is present and in some particular experimental conditions it seems to exercise an influence on the retraction process. But the restored platelet system (dialyzed platelets + platelet dialysate, or dialysed platelets + serotonin) seems unable to duplicate the total influence manifested by whole platelets.

To conclude, it seems that for a normal development of clot retraction process the interreaction of platelets with various plasmatic factors (of which one is dialysable—probably represented by glucose—and another is of protein nature) is necessary. This interreaction is only possible in the presence of viable and structurally intact platelets whereas the characterization of a hypothetical platelet component responsible for this function has not yet come to a definitive phase.

Held at the Auditorium, Wayne College of Medicine, 645 Mullett Street, Detroit. The organizing committee consisted of Walter H. Seegers, Elwood A. Sharp and Paul Halick.

ANTI-Ac-G: A SPECIFIC CIRCULATING INHIBITOR OF THE LABILE CLOTTING FACTOR

John H. Ferguson and
Charles L. Johnston, Jr.
University of North Carolina School of Medicine, Chapel Hill

A bleeding tendency (hematuria and ecchymoses) acquired by an elderly white farmer, Y, following removal of a septic gall bladder, was shown to be due to a circulating anticoagulant with the peculiar property of acting specifically against AcG, the labile factor (V) of the blood-clotting system. Other possibilities were ruled out in an extensive series of tests. AcG of human, bovine, or canine origin was inhibited but, in sufficient amount, gave considerable correction of the defect, *in vitro*. Because of the very potent anti-AcG and consequent hypoproaccelerinemia (AcG assay: 1 per cent), the following test anomalies occurred: (1) prolonged clotting time of whole blood and of recalcified plasma; (2) long prothrombin time (Quick test), exaggerated by dilutions of thromboplastin, but improved by adding AcG; (3) long partial thromboplastin time (using brain cephalin); (4) abnormal thromboplastin generation; (5) deficient prothrombin consumption.

Assay for anti-AcG was from reduction in activity of a standard AcG ($BaCO_3$-treated beef serum) on addition of dilutions of patient's plasma or serum, and testing on *aged* human plasma. A titer of about 1:200 was found in both plasma and serum. No incubation period was needed for the full inhibitor effect. The inhibitor was well preserved even at room temperature and thermolabile only at about 70° C. It resisted pH change, between 5 and 10, and was unaffected by ether and benzene. It was nondialyzable, not adsorbed on $BaSO_4$, and accompanied the globulin fraction precipitated between 25 and 33 per cent saturation with $(NH_4)_2SO_4$. While the inhibitor was present, electrophoretic analysis of serum by both the paper and moving-boundary techniques agreed in showing an increase in α_2=and possibly α_1=globulin, perhaps at the expense of the β=globulin, the γ=globulin and albumin remaining normal. The A/G ratio was reversed, 0.85, on the second occasion. A month later, the pattern was normal and the anti-AcG no longer demonstrable, thus cancelling plans for an attempt at chromatographic separation. The plasma AcG was recovering, to 45 and 63 per cent of normal, on two successive days at the time of this last electrophoretic study. All tests were normal subsequently.

In the presence of the anti-AcG, using Y's plasma as substrate, thromboplastin generation tests with brain lipid, normal $Al(OH)_3$ plasma, and normal aged serum were abnormal, unlike similar tests in which aged normal plasma or plasma from a congenital AcG-deficient case were used as substrates.

Not only do the tests diagnose a unique case of clotting disorder with hemorrhagic tendency, namely, hypoproaccelerinemia due to a circulating anti-AcG, but they also add some new evidence concerning the role of AcG in clotting systems. All tests which require AcG will fail of their special purpose if this factor is not present in sufficient amounts. Its lack may indeed be imposed on such systems when the presence of a powerful anti-AcG, as in Y's plasma or serum, inhibits the AcG that is knowingly supplied. Only by adding enough AcG was it possible to perform AHF and PTC assays, or to rule out the antithromboplastin possibility, et cetera. Y's plasma failed to correct such deficient plasmas as AHF-, PTC-, Stuart-, and others, solely for the reason stated. The thromboplastin generation tests proved that AcG is normally required *both* for the plasma thromboplastin generation *and* for the activation of prothrombin to thrombin. This last was demonstrable for the first time with the significant use of Y's plasma as substrate in the T.G. tests, above. It confirms previous evidence that thrombin formation is prevented in artificial systems of calcium, *tissue* thromboplastin, prothrombin and proconvertin, when all AcG is inactivated by boiling the reagents. The data, therefore, suggest that very careful consideration of the labile (AcG) factor be given in all types of testing for the coagulative function of the blood.

CORRECTION OF DEFECTS IN CLOTTING ACCELERATOR FACTORS BY ADMINISTRATION OF METHIONINE AND VITAMIN K AND A NEW SULFHYDRYL-SUBSTITUTED METHYLNAPHTHOQUINONE, VITAMIN K-S(II)

John R. Carter and E. D. Warner
State University of Iowa, Iowa City

Relevant to continued investigations on the role of sulfur-containing linkages in blood coagulation, a related series of studies has resulted in the experimental and therapeutic trial of a sulfhydryl-substituted vitamin K compound, designated vitamin K-S(II). The preparation of this compound was based upon and preceded by experimental and clinical investigations which had demonstrated that accelerator activity is influenced greatly by the concomitant administration of DL-methionine and vitamin K. Because of this synergistic effect, vitamin K-S(II) was designed to incorporate both sulfur and propionic acid, a carbon chain product of methionine degradation, into the vitamin K molecule in the 3-position. The administration of vitamin K-S(II), like that of DL-methionine plus vitamin K, is capable of exerting a striking in-

fluence on accelerator factors. As evidence of this, selected animal experiments and two patients, critically ill with severe hemorrhagic disorders, will be presented.

More specifically, administration of DL-methionine to normal dogs effected a consistent but mild elevation of accelerator levels, but DL-methionine plus vitamin K always evoked an even greater response. These two compounds, when administered separately to cholecystnephrostomized dogs, resulted in a moderate rise of accelerator levels; when given concomitantly, hypernormal levels were achieved. Accelerator levels in these dogs on protein-free and methionine-free diets became almost negligible. With the addition of DL-methionine to the diets, levels returned to normal on the former and gradually increased on the latter. A similar quantitative response was observed in normal dogs on the methionine-free diet. In partially hepatectomized rats, the rate of recovery of accelerator activity was decidedly faster on methionine-supplemented diets than on the stock or menadionine-supplemented diet. The accelerator response to vitamin K-S(II) in these experimental subjects was comparable to that produced by the concomitant administration of DL-methionine and vitamin K.

Two patients with severe hemorrhagic diatheses, associated with deficiencies of accelerator factors, were treated with vitamin K-S(II). Accelerator levels returned to normal and hemorrhagic manifestations disappeared completely on this therapy. In one of the patients, studied over a seven-year period, DL-methionine and vitamin K, administered concomitantly, repeatedly exerted a corrective effect on accelerator levels, whereas fresh and banked blood and massive doses of vitamins K and K_1 had no effect.

In contrast to the effect of vitamin K-S(II) on accelerator activity, that on prothrombin was negligible except in vitamin K deficiency states.

TIME AND DOSAGE STUDIES OF THE REVERSAL OF MYLERAN AND RADIATION-INDUCED BONE MARROW HYPOPLASIA IN RATS BY HOMOLOGOUS MARROW CELL INJECTIONS

J. K. Weston, R. A. Fisken, J. Finzel, M. Lee, and R. E. Maxwell
Parke, Davis and Company, Detroit

The reversal of irradiation damage in rodents by injection of isologous or homologous bone marrow cells has been widely studied. As we have previously reported (J. K. Weston et al., Fed. Proc., 16:377, 1957), intravenous injection of Myleran (1,4-dimethane sulfonoxy butane) at the level of 20 mg./kg. produces a severely hypoplastic marrow in rats, and this chemically-induced hypoplasia can also be reversed to a considerable extent by intravenous administration of suspensions of homologous marrow cells. In order to gain deeper insight concerning the mechanism of marrow regeneration, we have now made further studies of this phenomenon involving comparisons of Myleran and irradiation (Co^{60}) damage.

In general, our studies have been limited to a period of fourteen days following insult to the marrow. This relatively short period of time was chosen for practical reasons (oriented toward a screening procedure in the search for other treatments) and also because the earliest phases of regeneration might be of the greatest interest. At the time of sacrifice, marrow is removed from long bones and the following data obtained for each rat (usually ten rats per group): (1) total nucleated cell concentration, (2) concentrations of ribo- and deoxyribonucleic acids, and (3) differential smear counts. The present report will be concerned almost entirely with conclusions based on the first two criteria, since the large number of animals involved has precluded a full consideration of the smear studies at this time.

The over-all picture was similar in several respects following either 20 mg./kg. of Myleran or 800 r. whole body irradiation. Without treatment, irradiation caused a more rapid drop in levels of nucleated cells, RNA and DNA, and there was greater day-to-day fluctuation; in both cases there was heavy mortality (ca. 90 per cent by day fourteen), mostly during the second week following Myleran, frequently beginning during the first week after irradiation. Following either insult, comparable regeneration and reduction in mortality by day fourteen was obtained from a dose of $125X10^6$ homologous nucleated marrow cells per rat given on day one, two, three, four, or five. Lesser effects were obtained by this treatment on day six or seven, and no effect was apparent from treatment on day eight, nine, or ten. When treatment was on day five after Myleran insult, there was no change in the marrow on day six, seven, or eight, but a consistent improvement began on day nine and continued through day fourteen; this improvement did not begin until day ten in the irradiated animals. Given on day five $100X10^6$ cells produced as much recovery by day fourteen as $125X10^6$ cells; fifty or $75X10^6$ cells produced intermediate effects; and significant increases could be detected with doses as low as fifteen or $25X10^6$ cells. The mortality experience in general was in harmony with changes in the levels of nucleated cells and nucleic acids; however, the lower doses of cells were more effective in reducing mortality from Myleran than from irradiation. This observation may be related to a higher incidence of adventitious infections following the more extensive depression of defense mechanisms by irradiation; in support of this notion, it has been found that antibiotic treatment may greatly increase survival with minimal improvement in the condition of the marrow.

While the nucleated cell and nucleic acid levels have been discussed as a unit, and they do increase or decrease in parallel on the whole, there have been many curious divergencies in individual cases. These divergencies may be related to fluctuations in the distribution of cell types as the marrow deteriorates or undergoes regeneration. This aspect of the problem will be considered in the light of available differential count studies. This work was done under AEC contract No. AT(11-1)-334.

CONTROL OF ERYTHROPOIESIS

Leon O. Jacobson
Argonne Cancer Research Hospital, USAEC and University of Chicago, Chicago

During our investigations of erythropoietin and the conditions that alter its production, we have accumulated data that appear to clarify (1) the role of erythropoietin in maintaining the dynamic equilibrium of the erythron and (2) the basic conditions that regulate the reaction.

Four conditions that are characterized by a profound reduction in erythropoiesis are transfusion-induced polycythemia, hyperoxia, acute starvation, and the one following hypophysectomy.

The administration of as little as a single 2 cc. injection of anemic plasma, prepared by our standardized procedure, to these animals brings about a significant response in terms of an increase in the number of reticulocytes and the incorporation of Fe^{59} into the red cells.

The rapid reduction in erythropoiesis that follows hypophysectomy is thought to be the result of an over-all metabolic reduction that occurs very soon after the pituitary is removed. As a result, the demand for oxygen by the tissues declines but the supply of oxygen remains normal because the red cell mass at this time has not yet fallen appreciably. Since the demand for oxygen is reduced and the supply is normal, the production of erythropoietin is reduced drastically, and, consequently, erythropoiesis is reduced.

Transfusion-induced polycythemia in mice suppresses erythropoiesis to the degree that no evidence of red cell production can be found by Fe^{59} uptake studies, reticulocyte counts, or histologic examination of the blood-forming tissue. The sensitivity to anemic plasma of these polycythemic animals is comparable to hypophysectomized rats. Similarly, the effect of normal plasma is slight but significant in polycythemic mice after six or more 0.5 cc. injections.

In these transfusion-induced polycythemic animals, the oxygen supply is increased but the demand is normal. Hence, the production of erythropoietin is reduced, and, as a result, erythropoiesis is, for all practical purposes halted.

Hyperoxia also reduces erythropoiesis in rats. Hyperoxic animals respond markedly to anemic plasma. The mechanism is considered to be comparable to that of transfusion-induced polycythemia.

Starvation in rats is another condition that results in decreased erythropoiesis. A rapid reduction in metabolism is known to occur in animals subjected to acute starvation (Morgulis, S.: Fasting and Undernutrition. New York: H. P. Dutton and Co., 1923). We consider such an animal to be comparable to the hypophysectomized rat in that its oxygen demand is reduced and its oxygen supply is normal, and, as a result, the production of erythropoietin falls. It is interesting in this connection that chronic protein depletion reduces erythropoiesis in rats within two weeks. These protein-depleted animals respond to anemic plasma in a manner more or less comparable to that of acutely starved rats.

Experimentally-induced conditions that bring about a profound increase in erythropoiesis are bleeding and the administration of phenylhydrazine. Plasma from animals that have been bled or treated with phenylhydrazine is rich in erythropoietin as can be shown by assaying it in hypophysectomized rats, polycythemic mice, or normal rats.

Bleeding and phenylhydrazine-induced anemia represent (through red cell loss by withdrawal or hemolysis, respectively) a situation in which the supply of oxygen is decreased but the demand remains within normal limits. Metabolic stimulants (dinitrophenol and triiodothyronine) increase the rate of erythropoiesis in normal rats as measured by incorporation of Fe^{59} into red cells. Rats treated with dinitrophenol or triiodothyronine would be expected to increase their metabolic requirement for oxygen without an immediate compensatory increase in the supply of oxygen. Thus, the oxygen supply and demand relationship appears to be responsible for an increase or decrease in the production of erythropoietin in maintaining the dynamic equilibrium of the erythron.

We have found that as early as six to twelve hours after an intramuscular injection of 4.5 mg. of cobaltous ion, the erythropoietin content of the plasma of rats is approximately equal to that observed in the plasma of animals subjected to the means we use routinely (bleeding or phenylhydrazine) for producing active anemic plasma. The plasma from the animals treated with cobaltous chloride affects the normal animal, hypophysectomized rat, and starved rat in a way that is comparable to that observed after the injection of anemic plasma.

Finally, we have accumulated evidence suggesting that the kidney may be a site of erythropoietin production. Hypophysectomized, gonadectomized, thyroidectomized, and splenectomized rats retain the capacity to increase erythropoietin production in response to repeated bleeding. This response is also seen within twelve hours after stimulation with cobalt or a single massive hemorrhage in rats from which the thymus; the stomach, intes-

tines, spleen, and pancreas, or 90 per cent of the liver has been removed. Removal of both kidneys from rats and rabbits causes them to be incapable of response. The production of erythropoietin is reduced but not eliminated in rats during the first twenty-four hours after both ureters have been tied off.

THE SIGNIFICANCE OF THE MINOR CROSS-MATCH

E. R. Jennings and Corinne Hindmarsh with technical assistance of Marie Renaud
Woman's Hospital and Wayne State University, Detroit

There is considerable disagreement among blood bank directors concerning the significance of the minor cross-match, i.e., reaction between the donor serum or plasma and the recipient red cells. Some believe it to be essential while others state that it is a waste of time.

Medical literature of the last ten years contains only two reports of hemolytic reactions resulting from atypical donor antibodies aside from those of the ABO groups. A survey of eighteen blood bank directors in various parts of the world has revealed that twelve of them routinely employ the test while the other six do not.

In an effort to learn of the clinical effects caused by atypical donor antibodies, transfusions of plasma were given which contained various Rh antibodies antagonistic to recipient erythrocytes. The laboratory and clinical observations have indicated that anti-Rh_0 (anti-D) is capable of causing significant hemolysis of recipient cells, but that in none of the patients examined did there develop any signs of renal impairment or the clinical syndrome that sometimes follows the transfusion of incompatible blood.

It is not essential to routinely employ the minor cross-match, but we recommend the use of an effective screen of the serum of all Rh-negative donors in order to avoid this undesirable transfusion effect.

APPARATUS AND PROCEDURE FOR DETERMINATION OF THE RELATIVE PLATELET AND LEUKOCYTE VOLUMES IN BLOOD

Morden G. Brown
American Optical Company, Southbridge, Massachusetts

The use of hematocrit values for erythrocytes as a check on or as a substitute for erythrocyte counts has come into wide use with the availability of relatively quick and convenient microhematocrit apparatus and methods. The extension of this procedure to measure similar volumes (in terms of per cent of whole blood) for platelets and leukocytes requires a convenient technique for separation of the platelets and leukocytes in order to measure each volume independently and requires a higher precision in reading the volumes since these volumes may be 0.1 per cent or even less. In the method which has been developed, a standard 75 mm. microhematocrit tube is used. After loading with the blood sample and flame sealing, the tube is spun in a special slow speed centrifuge to settle the erythrocytes and leukocytes but not settle the platelets. The upper end of the tube is then flame sealed and the microhematocrit tube broken above the settled cells. The two separate parts of the tube are then centrifuged at high speed to pack platelets, leukocytes and erythrocytes. The five measurements necessary for determination of platelet, leukocyte and erythrocyte volumes are then made on a special precision microhematocrit tube reader. With this reader, the microhematocrit tube is observed with a low-power monocular microscope and all settings are made sequentially at a single eyepiece reticle line. Special scales and a computer board section are part of the instrument to minimize the amount of arithmetic required in the determination of platelet, leukocyte and erythrocyte volumes.

THROMBOPLASTIN: NOMENCLATURE AND PREPARATION OF PROTEIN-FREE MATERIAL DIFFERENT FROM PLATELET FACTOR 3 OR LIPID ACTIVATOR

Eugen Hecht, Min H. Cho and Walter H. Seegers
Wayne State University, Detroit

A method was developed for obtaining a highly active fraction from rabbit brain tissue which meets all of the requirements of a complete thromboplastin in the "traditional" sense. This lipid fraction contains no protein. It is a complex consisting of sterol, glutamic acid, serine, ethanolamine, and probably sphingosine. These components are also found in lipid activator and in the lipid portion of purified platelet factor 3, the latter being a lipoprotein. It is lethal upon intravenous injection in suitable quantity, while purified platelet factor 3 and/or lipid activator are not. When the brain thromboplastin is combined with Ac-globulin and calcium ions, purified prothrombin changes to thrombin, but such change to thrombin does not occur with purified platelet factor 3 or lipid activator. It is very active in one-stage prothrombin time tests. Heating this lipid fraction at 100° C. for thirty minutes or refluxing it with ether for ninety minutes impairs only very little of its activity but refluxing with alcohol for ninety minutes destroys its activity. However, then the material can still function as a procoagulant. The material we have isolated is called *brain thromboplastin.* The word "thromboplastin" apparently now is utilized in all kinds of ways so that the

meaning is diluted extensively and the narrowest boundaries include all materials that in some way promote the coagulation of blood. We use the term more specifically and thereby attempt to rescue a valuable word instead of inventing new terms to fulfill an existing need. The words lung thromboplastin, beef lung extract thromboplastin, brain extract thromboplastin, and lipid activator are used in terms of carefully considered descriptions.

ASSAY OF PLASMA THROMBOPLASTIN ANTECEDENT (PTA) WITH PURIFIED CLOTTING COMPONENTS

Harold Gallick, L. A. Hyndman and K. B. McCall
Division of Laboratories, Michigan Department of Health, Lansing

Plasma Thromboplastin Antecedent (PTA)[3] is known as a coagulation factor different from Antihemophilic Globulin (AHG) and Plasma Thromboplastin Component (PTC)[4], a deficiency of which results in prolonged clotting times and incomplete consumption of prothrombin. Until now PTA has not been shown to have any role in the Thromboplastin Generation Test (TG Test)[2], although this test has proven useful clinically in determining deficiencies of platelet factor (P-F), AHG and PTC.

The work reported here shows that PTA participates in the TG Test and that a deficiency of PTA can be detected by the test. Conditions are described for the assay of PTA or other clotting factors and some of the properties of PTA are discussed. The requirement for PTA is best demonstrated by using purified components. When barium sulfate-adsorbed normal plasma is replaced with purified AHG and accelerator globulin (AcG), and platelets are replaced by the lipid platelet-substitute of Bell and Alton[1], thromboplastin generation is abnormal with sera deficient in either PTC or PTA. A purified source of PTC will not substitute for normal serum in this system until a source of PTA is also added (barium sulfate-adsorbed normal serum or purified PTA).

When purified reagents are used throughout, the test system is dependent upon the presence of each of the components (platelet-substitute, AHG, AcG, PTC, PTA) and the curves obtained may be related to their concentrations. It is possible therefore to assay any one of the factors by using it in limiting concentrations while maintaining optimal amounts of the others.

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STUDIES ON THE RELATION BETWEEN THE FIBRINOLYTIC ACTIVITY OF HUMAN BLOOD AND THE URINARY EXCRETION OF PLASMINOGEN ACTIVATOR (UROKINASE)

K. N. von Kaulla
University of Colorado School of Medicine and the Belle Bonfils Memorial Blood Bank, Denver

It was observed that during cardiac surgery with pump oxygenator marked fibrinolysis can develop during the perfusion period. In such cases the urine was devoid of urokinase activity in the first few postoperative days. This prompted studies on the relation between fibrinolytic activity of the blood and urokinase excretion.

For the studies, the euglobulin lysis test which can be applied in heparinized blood (K. N. von Kaulla and R. L. Schultz: Am. J. Clin. Path, in press) and a new quantitative determination of urokinase excretion based on the activation of human plasminogen by human urine in the cold (K. N. von Kaulla and C. Taylor: Fed. Proc., 16:342, 1957) were used. The essential steps for urokinase determinations are as follows. Mixtures of one ml. plasma each with 0, 1, 2, 3, 4, 5, and 10 ml. urine each diluted to 20 cc. with water, are subjected to rotation dialysis in cellophane tubing 8/32" I.D. against running tap water at 4° C. for ninety minutes. The activated fibrinolytic euglobulins are precipitated from the individual dialysates with carbon dioxide, separated by centrifugation, dissolved in 1 ml. 1/15 M phosphate buffer, pH 7.4, and added to 4 ml. purified casein, 1 per cent in phosphate buffer. After incubation for ninety minutes, the liberated tyrosine is determined. With normal urines, a characteristic activation curve results showing increased tyrosine release with greater proportions of urine. The curve begins to level off with 3 ml. urine and becomes flat with 4 or 5 ml. urine, since with the latter amounts all plasminogen in the plasma sample has been activated under the conditions of the experiment. Addition of purified urokinase (K. N. von Kaulla: Acta haematol., 16:315, 1956) does not bring about further activation. Inhibitors of plasminogen activation or of plasmin are not contributing to the results of the test.

The results showed that activator excretion preoperatively was normal. High values appeared immediately before or during the phase of maximal lysis. After fibrinolysis had subsided the values dropped within hours and subsequently the activator disappeared completely from the urine for one to several days, then gradually returned to control levels. The plasma euglobulin lysis time was normal during the non-excretory period. Complete absence of activator excretion was also observed in repeated tests with cancer of the bladder and penis and in early myocardial infarction. Normal excretion occurred in cystitis, pyelonephritis, bronchitis and other diseases. In all cases, plasma euglobulin lysis time was normal.

Studies are under way to elucidate further the biological significance of the urinary excretion of plasminogen activator and its relation to fibrinolytic components of the blood.

PURIFIED PHOSPHOLIPID ANTITHROMBOPLASTIN: STUDIES OF MECHANISM OF ACTION
(Preliminary Report)

R. R. Holburn, M. J. Silver,
D. L. Turner and L. M. Tocantins
Charlotte Drake Cardeza Foundation, Jefferson Medical College, Philadelphia

The effects *in vitro* of purified phospholipid antithromboplastin (P.A.) on various clotting factors were studied. P.A. was prepared as previously reported (Am. J. Physiol., 190:8, 1957) and solubilized with sodium desoxycholate in buffered saline solution (pH 7.4). Control clotting determinations incorporating sodium desoxycholate disclosed that this salt had no effect on these tests at the highest concentration (2 mg./ml.) employed. Increasing concentrations of P.A. result in progressive inhibition of the clotting of non-activated as well as activated normal human plasma. There was no loss in activity of bovine thrombin or fibrinogen incubated for as long as thirty minutes with concentrations of P.A. of 2 mg./ml. or less. Prothrombin activity (two stage method) was reduced to 75 per cent of the control value when P.A. was added to defibrinated normal human plasma at a concentration of 2 mg./ml.; concentrations of 1 mg./ml. or less had no effect. No effect on Ac-globulin activity, (two stage technique) was noted when mixtures of P.A. and plasma were incubated for thirty minutes. Addition of P.A. reduced the rate and amount of thromboplastic activity as tested in the Thromboplastin Generation System. Increasing the concentration of "alumina plasma" in the mixture increased the amount but did not alter the rate of thromboplastin formed. Increasing the concentration of serum restored the thromboplastic activity to normal with respect to both rate of formation and quantity generated. When increasing concentrations of P.A. were added to the Thromboplastin Generation Test mixture *after* maximum activity had developed, a progressive depression of thromboplastic activity resulted.

THE ROLE OF PLASMA ACCELERATOR-GLOBULIN AND ITS THROMBIN ACTIVATED FORM, SERUM ACCELERATOR-GLOBULIN, IN THE CONVERSION OF PROTHROMBIN

Betty R. Johnston and H. Jensen
U. S. Army Medical Research Laboratory, Fort Knox

The mode of action of plasma accelerator-globulin (PAcG) and its thrombin-activated form, serum accelerator-globulin (SAcG), in the conversion of prothrombin to thrombin was studied by employing a 3-stage interaction technique. In the first stage, either all or certain of the factors thought to react prior to prothrombin conversion were mixed in specified amounts. These factors were proconvertin and/or plasma, thromboplastin component as supplied by a purified preparation from a $BaSO_4$-eluate of aged rabbit serum (serum-eluate), antihemophilic factor (AHF), PAcG or SAcG, acetone dried platelets as a source of platelet factor 3, calicum chloride, and with added thrombin in some experiments.

Either PAcG or SAcG must be present in order to obtain complete conversion of prothrombin in the presence of serum-eluate factor(s) (proconvertin or plasma thromboplastin component or both), platelet factor 3, AHF, and calcium ions. If PAcG is present, it must first be converted to SAcG by the action of thrombin before a maximal prothrombin conversion rate is attained. SAcG does neither affect the degree nor the rate of interaction of serum-eluate factor(s), AHF, platelet factor 3 and calcium ions forming a prothrombin-conversion factor. It was found that the rate of thrombin formation was the same irrespective of whether SAcG was present in stage-1 or stage-2 It appears, therefore, that SAcG affects thrombin formation at a phase just prior to or during the conversion of prothrombin. If SAcG does become a component part of a single prothrombin-conversion factor, as has been suggested by some investigators, then the data obtained would indicate that this interaction must occur at a very rapid rate. The present data are also in agreement with the concept of Seegers (Alkjaersig, N., and Seegers, W. H.: Am. J. Physiol., 182:347, 1955) that SAcG accelerates the conversion of prothrombin to thrombin by a prothrombin-conversion factor.

Inasmuch as traces of thrombin will in the presence of PAcG greatly enhance the rate of prothrombin conversion by a prothrombin-conversion factor, a proper evaluation of a thromboplastin generation test should take into account the pos-

sible presence of trace amounts of thrombin derived from prothrombin in the serum or $BaSO_4$-treated plasma employed.

THROMBOPLASTIN GENERATION AS A TEST OF LIVER FUNCTION

S. F. Rabiner and T. H. Spaet
Montefiore Hospital, New York

By means of the thromboplastin generation test, previous investigators have demonstrated a serum defect occurring in certain patients on therapy with coumarin drugs or with liver disease. This defect was demonstrable in the presence of normal prothrombin levels, and was considered to result from depression of a clotting factor—named factor X. Subsequent studies have suggested that factor X may be identical to Stuart factor. In the present study, an attempt has been made to apply these findings in the development of a liver function test.

Three groups of subjects were studied as follows: (1) Patients with known liver disease on the basis of deranged liver function tests or histological evidence. (2) Patients with suspected liver disease in whom function tests were normal but the diagnosis was suggested by hepatomegaly, previous hepatitis, or other clinical data. (3) Patients with neither clinical nor laboratory findings suggestive of liver disease.

The majority of patients in group 1 and an appreciable proportion of patients in group 2 gave an abnormal serum curve in the thromboplastin generation test. Few patients gave evidence of reduced prothrombin either by the Quick or Ware and Stragnell techniques. The abnormal sera corrected the clotting defect in PTC-deficient serum, but they were defective in their ability to improve thromboplastin generation in stored serum. The defect thus corresponds to that described for factor X deficiency. Autopsy performed on several of the patients in group 2 confirmed the presence of liver disease indicated by the abnormal serum. No abnormality was found in the group 3 patients.

The findings suggest that the thromboplastin generation test may be a more sensitive liver function test than any currently in use. However, the test must be interpreted with caution, since it is sensitive to any situation in which vitamin K metabolism is disturbed.

A NEW APPROACH TO THE THROMBOCYTOPATHIES (THROMBOCYTOPATHY A)

Shirley A. Johnson, Raymond W. Monto and Jeanne M. Riddle
Henry Ford Hospital, Detroit

Fifteen patients with a hemorrhagic diathesis exhibited prolonged bleeding times as the only *in vivo* abnormality and short prothrombin consumption times as the only *in vitro* abnormality. The serum exhibiting the abnormally short prothrombin time unlike hemophilia and similar to thrombocytopenia contained as little prothrombin as normal serum, about 25 units per milliliter. This phenomenon suggested a dysfunction of platelets; and, since platelet factor 3 is the principle activity of platelets known to be involved in the formation of thrombin and probably concerned with the prothrombin consumption time, a study of the function of platelet factor 3 in these patients was undertaken.

About 200 ml. of blood were drawn from each patient and the platelets were collected by differential centrifugation and washed. Platelet counts were carried out on suspensions of normal and patients' platelets and by dilution equal numbers of platelets in the suspensions were obtained and the products were frozen.

The platelet factor 3 activity of these platelet suspensions was assayed by the method of Alkjaersig, Abe, and Seegers involving quantitative activation of purified prothrombin. The patients platelet extracts activated very little prothrombin, about 100 units, while the normal activated about 800 units per milliliter. Morphological studies of these platelets using the electron microscope suggested that faulty liberation other than content could be responsible for the apparent lack of activity. After treatment with ultrasonic oscillations, the patient's platelet extracts which previously had activated very little prothrombin converted the same amount as normal platelet extracts. The results of these observations suggest the designation of Thrombocytopathy A to this bleeding disorder.

THE PHYSICAL CHANGES OF PROTHROMBIN UNDER VARIOUS EXPERIMENTAL CONDITIONS

Francois Lamy and David F. Waugh
University of Pittsburgh and Massachusetts Institute of Technology, Cambridge

Using the purified prothrombin preparations of Seegers and co-workers, we previously determined a molecular weight of 68,000 and observed that the samples exhibited physical homogeniety. The prothrombin molecule appeared as a unit having an axial ratio of ~3.7 and a length of 119Å. At the same time, our brief examination of thrombin, which had been obtained by several methods of activation including treatment with concentrated potassium citrate, suggested that prothrombin could undergo a number of molecular changes some of which have a bearing on the objects of molecularity and activation.

Inherent prothrombin instability is demonstrated by dilution with saline for below 0.1 per cent protein, a dissociation into subunits of M ~34,000 takes place. Since dilute prothrombin may be

activated, we must suppose that this dissociation is reversible. At concentrations near 0.5 to 1 per cent and ionic strength 0.15, a similar dissociation may be effected at pH 5 by phthalate ion. At pH 2.0, fragmentation occurs for a unit of S~2 appears, while the remaining material aggregates.

Alterations in internal structure, without dissociation or fragmentation, take place at pH 11.9 as shown by measurements of sedimentation constant and optical rotation.

In the presence of a high concentration of citrate ions, prothrombin spontaneously activates to yield thrombin. A consideration of the activation curves suggests that two processes are at work: One is the autocatalytic activation reaction previously described by Seegers, the other being a progressive inactivation of the thrombin formed. The changes of the sedimentation constant of prothrombin at various citrate concentrations show that activation requires a dissociation of prothrombin into its two subunits with a subsequent unfolding of these.

If, instead of examining prothrombin in the presence of concentrated citrate, the solution is diluted with water to a concentration of 2.5 per cent citrate (conditions under which the activation curves are recorded) a different picture emerges. The small fragment previously observed after heat and acid denaturation is now always present together with the subunits expected after removing a fragment of S~2 from a half molecule of M~34,000.

Combining physical and chemical data we suggest that the true molecular weight of prothrombin and of thrombin are much smaller than the values presently accepted and that both proteins, and particularly thrombin, can exist in a variety of forms involving the interaction of a fundamental thrombin molecule with itself and with a variety of fragments.

ON THE MODE OF ACTION OF THROMBIN

K. Laki, J. A. Gladner and D. R. Kominz
National Institutes of Health, Bethesda

When thrombin clots bovine fibrinogen it splits off two peptides from the fibrinogen molecule. The C-terminal amino acids in both peptides are identified in this laboratory as arginine. Since excess glycine a-amino groups appear on fibrin, thrombin must be assumed to split arginine-glycine bonds when it removes the peptides. The action of thrombin is thus similar to trypsin but its action is restricted to the two arg-gly bonds in fibrinogen. This restricted specificity is probably determined either by the amino acids in the immediate neighborhood of the two peptide bonds split, or in the structure of the thrombin active center.

One mole of thrombin (Mw = 15,000) reacts with one mole of diisopropyl phosphorofluoridate (DFP). As in the case of trypsin and chymotrypsin DFP can react with only one of the serine residues in the thrombin molecules. Thus, only one of the six serines in the thrombin molecule can be converted to diisopropylphosphoryl serine when DFP inhibits thrombin activity.

Whether serine is part of the active center of the thrombin or it is only in the immediate neighborhood of it, requires further investigation. These aspects of the thrombin-action will be discussed.

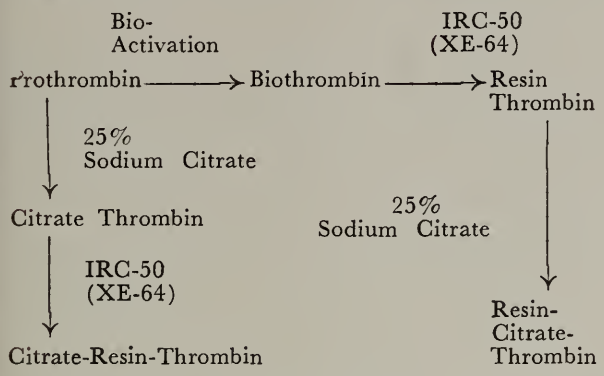
FURTHER STUDIES ON THE PURIFICATION OF THROMBIN

Walter H. Seegers and Walter G. Levine
Wayne State University, College of Medicine, Detroit

Purified prothrombin (Seegers, *Record Chem. Process 13,* 143 (1953)) can be converted to biothrombin in several ways, thrombin being the activator. In the ultracentrifuge biothrombin sediments at about the same rate as prothrombin (Lamy and Waugh: Physiol. Rev. 34:722, 1954; Seegers and Alkjaersig: Arch. Biochem. Biophys., 61:1, 1956), but on electrophoresis the properties of the two are quite different. According to Miller (Conference on Blood Cells and Plasma Proteins, Albany, 1957) biothrombin separates on the amberlite IRC-50 (XE-64) column (Rasmussen: Biochem. et Biophys. Acta, 16:157, 1955) to yield resin thrombin. This thrombin we have prepared free of salts and Robert Shepard finds it to be homogenous material upon analysis with an ultracentrifuge. Four successive preparations yielded an average activity of 4,100 units/mg. dry weight (4200-3900-4270-4030). A second adsorption and elution, or chromatography at constant pH did not increase or lower the specific activity. The activity for purified phothrombin is about 2,000 units/mg. dry weight and it has a molecular weight of resin thrombin. In other terms the x 62,700 or 30,600 gives the probable molecular weight of resin thrombin. In other terms the specific activity is 45,000 units/mg. "tyrosine." Purified resin thrombin digests fibrin substrates previously heated to free them of enzymes that might be present. The esterase activity is depressed in Na citrate solutions and upon standing the clotting activity is first lost.

In 25 per cent sodium citrate solution much of the tyrosine of resin thrombin becomes soluble in trichloracetic acid. It should, therefore, be possible to isolate resin-citrate-thrombin of even lower molecular weight than resin thrombin. We have activated purified prothrombin in 25 sodium citrate solution, separated the citrate thrombin (Seegers and Alkjaersig: Arch. Biochem. Bipophys., 61:1, 1956) and made a further separation with an amberlite IRC-50 (XE-64) column. The specific activity of this material was 47,000 units/

mg. tyrosine as compared with 33,000 previously achieved for citrate thrombin. The relationships of possibly different molecular structures can be diagrammed as follows:



The resin thrombin taken directly from the resin column is quite stable at 4°C. for months. Upon dialysis, to remove the phosphate buffer, activity is almost completely lost in a few hours. Consequently we had to find a way to remove salts. The thrombin is precipitated with $(NH_4)_2SO_4$, dissolved in water, precipitated by adding an equal volume of cold acetone. It is taken up in water and precipitated several times and then dried with acetone. This "salt-free" thrombin does not lose activity so rapidly upon dialysis. Evidently inorganic ions are of consequences for the stability of thrombin.

REVERSIBLE DENATURATION OF THROMBIN ACTIVITIES IN UREA SOLUTION

Kent D. Miller
Division of Laboratories and Research, New York State Department of Health, Albany

The esterolytic, clotting, and proteolytic effects of thrombin are absent in 8 *M* urea solutions but appear as the urea concentration is reduced below 1 *M*. Tolysylarginine methyl ester (TAME) was stable when mixed with thrombin in 8 *M* urea solutions, the ester being determined by the hydroxylamine reaction. Following eight-fold dilution, the TAME was enzymically hydrolyzed. On extensive dilution of diisopropyl fluorophosphate (DFP)-thrombin-8 *M* urea mixtures, clotting activity was reactivated, further indicating that the enzyme had not reacted with the DFP, a powerful stoichiometric inhibitor of the enzyme.

Since the clotting of fibrinogen is sensitive to a number of factors possibly unrelated to the enzymic action of thrombin (that is, different optimum pH and calcium ion concentration), gelatin was employed as substrate for the measurement of proteolysis. A gelatin preparation of high intrinsic viscosity was prepared and thrombic activity was followed by viscosimetry. In this manner micro quantities of thrombin can be determined. The optimal pH of gelatinolysis is 8.0 to 9.0. Since this is the same as for thrombin reacting with TAME and DFP, it is, possibly, the optimum pH for all thrombin reactions regardless of substrate size. Neither calcium nor citrate ions enhance gelatinolysis. At pH 8.5 in 8 *M* urea solution, the thrombin is without proteolytic effect on gelatin. On eight-fold dilution, the reactivation of the enzyme is followed by a rapid decrease in viscosity. This gelatinolysis is accompanied by a liberation of N-terminal glycine residues.

These observations suggest that thrombin requires a particular three-dimensional configuration in order to react with substrates of both low and high molecular weights. Also, thrombin tends to recover this configuration after partial unfolding in concentrated urea solution.

ACTIVATION OF PROTHROMBIN

Ricardo H. Landaburu and Walter H. Seegers
Wayne State University, College of Medicine, Detroit, Michigan

In experiments with purified biothrombin, it was found that strong solutions of sodium citrate or protamine sulfate (0.1 per cent w/v) or purified platelet factor 3 depress the esterase activity and leave the clotting unaltered. Apparently a depression of esterase activity is beneficial for the autocatalytic activation of purified prothrombin. In protamine sulfate solution, prothrombin gradually becomes thrombin and the yield of thrombin is even higher than in 25 per cent sodium citrate solution. Prothrombin also depresses the esterase activity of biothrombin, and itself serves as a substrate for the enzyme thrombin. When prothrombin becomes an inactive derivative or a substance refractory to being converted to thrombin in the presence of Ac-globulin, thromboplastin and calcium ions, it can nevertheless be changed to thrombin with the use of thrombin as a catalyst, just as was previously accomplished with the use of 25 per cent sodium citrate solutions. Theoretically, a prothrombin derivative(s) can serve as substrate competitor for thrombin and thus be an accelerator of prothrombin activation, or the derivative, under appropriate conditions can itself give rise to thrombin. Thrombin, as activator of prothrombin, can account for all observed conditions of prothrombin activation. The discovery of thrombin as activator of prothrombin offers a simplified view of the entire blood coagulation mechanisms. Two equations can describe the basic events.

$$\text{Prothrombin} \xrightarrow{\text{Thrombin}} \text{Thrombin}$$

$$\text{Fibrinogen} \xrightarrow{\text{Thrombin}} \text{Fibrin}$$

Other factors support the production and enzymic function of thrombin and these are called procoagulants. Opposed to these, and normally in exact balance, are those factors that hinder the

production or function of thrombin and these are called anticoagulants. In the presence of thrombin prothrombin can change to thrombin without Ac-globulin. Plasma Ac-globulin changes to serum Ac-globulin in the presence of thrombin but not with esterase thrombin. Consequently, the depression of esterase activity does not impair the capacity of thrombin to make the beneficial alteration in Ac-globulin.

CHARACTERIZATION AND ISOLATION OF HUMAN BLOOD ANTITHROMBIN

George Y. Shinowara and Dimite J. Buckley
The Ohio State University Hospital, Columbus

Antithrombin is the circulating anticoagulant of human blood and was first hypothesized in 1892. Subsequently investigation on this important biological substance has been hampered because its quantitative determination is obscured by fibrinogen. Therefore the present study was undertaken to isolate antithrombin and to determine its properties. The starting material was plasma. Fraction III+ IV (Shinowara) which was found to contain 96 per cent of the antithrombin activity and to be free of fibrinogen and other coagulation factors.

Further purification of antithrombin presented considerable difficulty. After numerous experiments the conditions for precipitation of Fraction III were evolved as follows: ~/2 0.0008, pH 5.1, ethanol concentration 20 vol. per cent, temperature —8.5° C. and precipitation time twenty-five minutes. This fraction has an average recovery of 94.9 per cent of the antithrombin activity of Fraction III + IV and contains 41.95 per cent of the plasma tyrosine and over 90 per cent of the plasma gamma globulin. Studies were done to determine the solubility, chromogenic factor, ultraviolet absorption and the electrophoretic composition of Fraction III.

A quantitative test procedure for antithrombin determination is described in which a standard antithrombin unit is defined as that which will destroy one unit of thrombin (N.I.H.) at 37.5° C. and pH 7.3 in thirty minutes with at least 40 per cent of the original 5 unit substrate per ml. activation mixture remaining. The influence of temperature, pH and mass on the thrombin-antithrombin reaction was studied, particularly at those concentrations employed in the test procedure. The reaction follows a first order course. The relationship of heparin and antithrombin was studied. Unlike heparin, antithrombin was found not to interfere in prothrombin conversion but to destroy thrombin after it was formed. The antithrombin level was also studied during the course of spontaneous coagulation.

OCCUPATIONAL THERAPY PROCEDURES AS APPLIED TO HEMIPLEGIA AND ARTHRITIS

(Continued from Page 1554)

as wheelchair selection; the approach to the home may need a ramp; the patient's bed should be stabilized and adjusted as to height; and floor coverings must be considered from the point of view of safety. The choice of types of clothing will make self dressing possible. The bathroom will need supportive bars and safety features installed. Simple rearrangement in the kitchen will make kitchen activities possible and give the homemaker a chance to continue to be a part of the homemaking responsibilities.

The occupational therapist must assist the rehabilitation team in re-establishing skills necessary for living which includes a plan to meet the total needs of the patient, physically, mentally, socially and vocationally.

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Michigan Chapter of the American College of Surgeons

Annual Meeting, March 18, 1958

THE VALUE OF SCALENE NODE BIOPSY IN THE DIAGNOSIS OF PULMONARY LESIONS

Raymond J. Barrett, M.D., F.A.C.S.,
Sung Hwa Yoo, M.D., and
William M. Tuttle, M.D., F.A.C.S.

Scalene node biopsy involves the removal of non-palpable nodes which lie in a constant fat pad over the anterior scalen and beneath the sternocleido mastoid muscles. Representing an extension of the mediastinal nodes, their biopsy affords a simple method of assessing changes in the mediastinal lymphatic system.

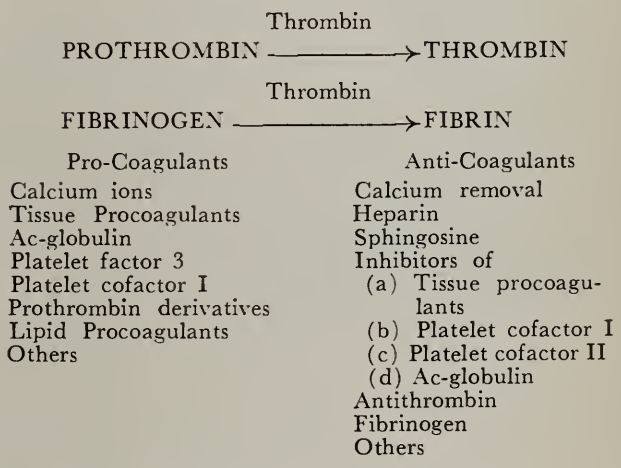
Experiences are recorded with 251 such biopsies performed by the same operators, or under their supervision, in both a private and a sanatorium practice. The private cases, representing relatively virgin material as would be expected, gave a higher incidence of positive biopsies than did the sanatoria cases. The effectiveness of the procedure ranged from a 5.7 per cent positive biopsy rate in sanatorium cases with unilateral pulmonary lesions, to a 37.8 per cent positive biopsy rate in private cases with bilateral pulmonary lesions. In bilateral disease, either right-sided or left-sided biopsy seems equally effective. The greatest usefulness of the procedure seems to lie in the diagnosis of Boeck's sarcoid since the biopsy was positive in 60 to 81 per cent of all cases in which this disease was finally proven. While the number of cases was too small to be statistically significant, the correct diagnosis was obtained in all cases of Hodgkin's disease and lymphosarcoma.

By contrast, biopsy gave the correct diagnosis in only 12 to 20 per cent of cases of pulmonary tuberculosis and in only 15 to 30 per cent of the cases of carcinoma of the lung in which it was attempted. The latter group consisted of those cases in which diagnosis, only, was to be established since a positive obviously indicates metastatic disease.

COAGULATION PROBLEMS IN SURGERY

J. Frederic Johnson, M.D., *Department of Physiology and Pharmacology, Wayne State University College of Medicine, Detroit, Michigan*

Recent progress in our laboratory has convinced us that the only factor necessary for the conversion of prothrombin to thrombin is thrombin itself. In such a scheme, the proposed factors which are considered important in blood coagulation can be listed as procoagulants which accelerate the process or as anticoagulants which inhibit. This is illustrated in the accompanying diagram.



Defective coagulation, if suspected from the patient's history or physical examination, can be ascertained by the following laboratory tests: (1) whole blood clotting time, (2) bleeding time, (3) tourniquet test for petechiae, (4) prothrombin time, (5) platelet count.

Marked deviation from the normal values in these few tests indicates the possible existence of a bleeding tendency which should be investigated further by specialized techniques.

Therapy for the defects in coagulation is primarily the use of whole fresh blood. Specific factor replacement such as fibrinogen, antihemophilic globulin, Vitamin K for prothrombin deficiency can be utilized in selected instances. How-

ever, the lack is often not found to be a single factor and the wider therapeutic latitude of whole blood is desirable.

Thrombosis and embolism are manifestations of hypercoagulability of the blood and are treated by the judicious, controlled administration of heparin and the coumarin derivatives.

The *sine qua non* of anticoagulant therapy is thoughtful, constant laboratory control of the coagulability of the blood. Adequate therapeutic levels of the anticoagulants must be maintained on an individual basis by continuuous accurate determinations and the dosage varied to match each patient and, further, to match alterations of sensitivity to the agent in the same patient.

A COMPARISON OF THE RESULTS OF MEDICAL AND SURGICAL TREATMENT OF GASTRIC ULCER

Robert E. L. Berry, M.D., and Louis Schmidt, M.D., *Ann Arbor, Michigan*

The problem of whether a gastric ulcer is malignant or benign will continue to be with us until such time as an accurate differential diagnosis is available without placing the resected ulcer under a microscope.

Five hundred gastric ulcers were studied in an effort to find out what happened to those for which there was reasonable question as to whether they were benign or malignant. At the University of Michigan Hospital, the majority of such ulcers are observed for a period of at least three weeks under strict medical regimen in the hospital before decision to operate is made. Of these, 287 were not operated upon and after a minimum of five years' observation cancer has not occurred. It has been assumed that these ulcers were benign. Of this group there has been a recurrence rate of 12 per cent.

One hundred and forty-four cases were operated because of a suspicion of cancer following failure of "adequate" healing. Of these, fifteen were malignant (10 per cent). When such early operation was done, five of this group were alive after five years. The remainder were dead with cancer of the stomach. Eleven other ulcer cases appeared to "heal" under medical treatment, only to return in less than a year with cancer. All of this group but one are dead.

The survival figure of 33 per cent in those undergoing "early" resection is simlar to that observed in cancer of the stomach when the surgeon feels reasonably sure that he has removed all of the gross cancer. It would appear that even such early operation does not contribute significantly to survival and that the most important factor as to whether or not a given cancer of the stomach is lethal depends upon the biological malignant potential inherent in the tumor.

INDICATIONS FOR THE USE OF THE ARTIFICIAL KIDNEY

Yoshikazu Morita, M.D.

In the past decade, the artificial kidney has proved itself useful in the treatment of renal failure. Not only does it remove retention products, such as urea, uric acid, phosphate and sulfates from the blood of uremic patients, it also corrects the abnormal plasma concentrations of sodium, potassium, chloride, calcium, and bicarbonate. Its chief use is in the management of the patient with acute reversible renal failure, such as occurs after severe shock, transfusion reactions, and drug reactions. In these persons, use of the artificial kidney may sustain life long enough to allow the diseased kidneys to recover adequate function.

There are two immediate indications for dialysis in a patient with renal failure: hyperpotassemia, best detected by electrocardiography; and severe uremia, best evaluated at the bedside by the clinical appearance of the patient. The artificial kidney is also useful in removing toxins from the plasma, such as bromides, salicylates, and certain barbiturates. Although it is an important therapeutic aid in the treatment of renal failure, it remains adjunctive to correct fluid, electrolyte and nutritional management.

Our Working Foundation Needs Funds

The Michigan Foundation for Medical and Health Education is a valuable organization to the people and to our profession.

Today it has an opportunity to "capitalize" on the present need for funds created by the increasing influx of students into the medical schools of our state.

By "capitalize" I mean simply taking advantage of this opportunity to render service. We usually think of capitalizing on something as an attempt to profit by some situation. And that is precisely the case in this instance for we can "profit" *altruistically* by recognizing the situation in regard to medical and health education as it now exists and then doing something about it.

As I see it, the situation is simply this:

1. There is a need for more trained persons in the professional health fields.
2. There is an influx of students into our colleges and universities.
3. The cost *of* these students to the taxpayers and the cost *to* these students of the courses they must take is increasing.

The trick is to get the students into the health fields, get sufficient facilities in our schools to teach these students, and get money into the students' hands so that they can get the education they seek. The Michigan State Medical Society, itself, can and will help in the first two of these three important activities. Although the last task is the toughest, it rightfully falls under the responsibilities of the Foundation as the trustees thereof recognize.

With a minimum of funds, the Foundation has already done a mighty fine job. It has wisely invested its capital. Its record of service shows numerous loans to deserving medical students who agree to practice in rural Michigan; its support of the outstanding Michigan Rural Health Conference has been of inestimable value.

But it just can't do the complete job—the ultimate—without your money and your influence. Your personal contribution to this cause is vital. Of equal import are your advices to others in position to invest in the health future of our state, that they use this facility which your profession has created. How about it?

Delbert B. Hollenbeck

President, Michigan State Medical Society

President's



Message

Editorial

MICHIGAN'S M-75

The Annual Session of the Michigan State Medical Society is history. The Blue Shield program has been through the wringer. During the very hours of the House of Delegates meeting, the projected M-75—which had been approved by the State Insurance Commissioner in May, had been publicized to our membership in June and had been offered to the public in July—was being demanded by labor in its negotiations with the three big automobile concerns and was being offered by these three administrative groups: Ford, Chrysler and General Motors, as part of their package offering to their laboring people. The program was acceptable from both standpoints and really was not truly a bargaining item. This acceptance by the automobile industry will cover about 1,750,000 persons. Other groups also have been offered the services and have indicated favorable reaction.

All summer, a growing disaffection was developing among a minority of the membership of the Michigan State Medical Society. Some objected completely to any service coverage—demanding only indemnity. Others thought Blue Shield should be limited to the indigent and the medically indigent. Others were not satisfied with the payments for their particular specialties as provided by the temporary schedule of fees to be paid. Some objected strenuously to the different methods of paying participating and non-participating doctors.

There are probably very few persons in the medical profession of Michigan, or elsewhere, who are completely satisfied with this insurance principle involved in pre-paying medical care. Almost everyone could very readily find items in the old contract or the new in which the payment offered was not or will not be as much as they consider to be their due, but fortunately enough physicians, in order to protect their patient as well as their own right to practice independent medicine, have been willing to accept.

Everyone plans to work for improvement. The fee schedule in the new M-75 is still under study by the fee schedule committee. There has been set up in every Counsellor District a medical care insurance committee to hear complaints and make recommendations in any case where the doctor feels he has been inadequately paid or unjustly treated.

In the discussions before the House of Delegates and in the reference committees, the dissatisfied groups had full opportunity and did express their beliefs and feelings. It appears from the various test votes that about one third of our membership are unhappy and demand to be shown that an honest effort is being made to meet their objections. The various committees and the Board while administering the program should bear in mind that our own Michigan-developed relative value scale must be presented and studied and must be sufficiently acceptable to the objecting members. At the same time, our members must render services under this contract in such a way that our subscribers will also be satisfied.

Twenty years ago, the threat of socialized medicine was extremely real. The Blue Shield service saved us. That threat is still real but the ogre is not so obviously pouncing upon us.

Not only Blue Shield but the medical profession is on trial. Will we respect and adhere to the published principles?

IMMUNIZATION

Immunization, particularly to polio and diphtheria, has broken down in certain areas of the United States. In several states polio is rampant. In the southeastern part of the State of Michigan there has been increasing recurrence of polio—approximately 600 cases (and last year there were approximately 150 cases of diphtheria). Medical research over the ages has developed protection against several diseases. Small pox—the earliest to be brought under vaccination control took many years and many drastic measures but is now almost unknown. If one case should occur in a community there would be panic.

Malaria and yellow fever are much of the same category. Our contacts with diphtheria and typhoid fever have been of more recent date. The methods of immunization are well-known and are available. Most children now receive the im-

munizing dose against diphtheria, smallpox, whooping cough and measles in their early years. We urge polio vaccine to be included in that pediatric procedure. Until it is thoroughly so-administered, we again urge our readers to administer this protection not just to the children or young adults, but also to the older ones. Polio sometimes occurs and recently has caused a violent death in Michigan of a person over forty years of age.

It might be well to re-survey the diphtheria situation and protect all those who are not now immunized. These two diseases could be completely eliminated. The cost is insignificant in comparison to the protection granted and we believe ways could be found in every community to protect those whose financial condition requires help.

POLIO VACCINE

The Michigan State Medical Society through The Council and the Michigan Department of Health have been urging for several years that the public become immunized to polio. During the first year of the Salk vaccine, the supply was limited as was its use to a certain category of children and pregnant women, but since the supply has become adequate, health authorities (including the United States Public Health Service) have recommended that everybody up to age forty be vaccinated.

This program has been advertised over radio, television, and the newspapers. The JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY recommended to the doctors about a year ago that we extend the program—removing the age limit. Older people do not frequently contract poliomyelitis but occasionally do. The editor personally took the vaccine—as did members of his family. He believes in taking what precautions he can.

Recently (early in September) almost every newspaper reported an epidemic of increasing numbers in Detroit and in three other states with increasing deaths. There have been a few cases of poliomyelitis in patients who had had one or two and possibly a third shot of vaccine, but so far as we can determine, none of these have developed paralytic polio. When Dr. Thor. Francis, Jr., made his report at Ann Arbor, publicizing the nationwide review of the massive polio vaccine injections, he estimated that the vaccine would be about 95 per cent effective and possibly more so in "paralytic polio."

The United States Public Health Service has reported that 44 million persons under forty have not yet had polio vaccination. A tenet of public health service has always been that if a major proportion of the population is protected against any infectious condition, the disease can be rather thoroughly controlled. If nearly 100 per cent could be protected, the disease could be eliminated as has almost happened in smallpox, diphtheria, typhoid fever, and yellow fever—especially in the more enlightened areas of the world. It would help if every doctor when he sees a new patient would inquire if he has had polio shots as one of his history-taking procedures—and we would not stop at age forty.

ANOTHER OBJECTION TO BLUE SHIELD

A group of about a dozen doctors have been in the habit of having lunch together for a long time. In general, the discussions avoid medicine except when some particular item is mentioned. One of the surgeons, a very prominent and influential man, remarked that there is a very serious objection to Blue Cross and Blue Shield being expressed by the faculties of many of the medical schools. Blue Cross and Blue Shield have made it feasible for thousands of patients with unusual or extremely serious or complicated conditions to have their work done in their own local hospitals by their own doctors. The patient load at the medical school hospitals has reduced to the extent that the faculties are much concerned over providing teaching material. They are considering curtailing intern and house physician services and the training of new specialists. This is being charged to Blue Cross and Blue Shield.

If true, the trend is serious and could materially handicap our teaching centers. Several joined in the discussion. Members of the group were surprised but mollified at an explanation offered by one of the senior members to whom the criticisms had been addressed. There is a very obvious reason for this trend of potential teaching material not going to the big cities and the big universities, or even from the big cities to the university clinics.

For about thirty years the medical profession has conducted a very extensive and well controlled training program to prepare young men for specialty service, has established and trained them to

pass the various specialty boards, and to do very acceptable work in their chosen fields. This has reached the point where there are very few communities of 25,000 or more which do not have thoroughly competent men to give all but the most elaborate medical and surgical care. Some special cases must be sent to the research and clinical centers for special evaluation. The majority can be well cared for in their home town areas within from 15 to 25 miles and the patient can be within close touch of his own family.

Our professors and medical teachers must expect that every time they train a new man to do the work which has previously been coming to them, they are setting up competition. This has always been the case as long as we have had scientific medicine and will continue to be so. This is one criticism which is unjust to make against Blue Shield and Blue Cross.

JENKINS-KEOGH BILL

The Jenkins-Keogh Bill, HR 10, in the last session of Congress passed the House but died in committee in the Senate. As our readers should know, this Bill provides for a voluntarily established method of investing a certain proportion of the income of certain groups (professions, self-employed) in retirement annuities, and that before tax deduction.

Industry has long had such a program and enormous reserves have been built up for retirement of executives and other employees. Through the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, we have been advocating this program for over ten years. At the present session, members of Congress have shown the greatest consideration for the measure and the House passed the bill.

We are publishing (page 1514) for the information of our members and readers a reply being sent to inquiries by Senator Byrd, the Chairman of the Senate Finance Committee. It has been known for years that the Bureau of Internal Revenue objected to this measure. This statement pinpoints that objection. The amount of loss in revenue which they mention is impressive but insignificant when compared to other programs and the favors granted industry in this same field. It is time our professional groups take an active interest in securing this type of legislation. The Jenkins-Keogh Bill as it has finally developed, is very much less liberal than what has been in existence for the employed persons for many years. What is being asked is only a small step toward equalizing the benefits and privileges our friends and neighbors do have now.

Both Senators from Michigan have responded to letters in the last few months stating their position as favoring this legislation. The Jenkins-Keogh Bill of the 85th Congress is dead. A new bill will be introduced in the Congress which will be meeting again in January. Letters will again be in order—directed not only to Michigan Congressmen but to every member of the Senate Finance Committee which will consider this Bill. Senator Byrd of Virginia will continue to serve as chairman of this important committee.

ONTARIO HOSPITAL CARE INSURANCE

In 1957, the Province of Ontario passed an act establishing the Hospital Service Commission with two basic responsibilities: (1) to insure the development throughout Ontario of a balanced and integrated system of hospitals and related health facilities, (2) to establish a plan for hospital care insurance in accordance with an agreement between the government of Ontario and the government of Canada.

The government does not plan to build hospitals but will stimulate the development of essential hospital facilities throughout the province. The commission took over the reins of an already active program of hospital expansion in Ontario which, during the period from 1946 to the end of 1957, increased the total number of beds in public general hospitals, hospitals for convalescents and hospitals for the chronically ill by 78 per cent. The growth of hospital accommodations will continue to be encouraged and guided by the commission.

The hospital insurance part of the program is being sold now to all residents of Ontario and will go into active effect at 12:01 a.m., January 1, 1959. Subscribers must register before December 1, 1958 and pay the first month's premium which will provide protection for three months until March 31, 1959. But the subscriber must pay a premium each month beginning in January. Enrollment for this insurance is compulsory for all residents of Ontario who are employed where there are fifteen or more persons on the payroll. Employers with six to fourteen employees may ap-

ply to form mandatory groups. Each employee is primarily liable for payment of his own hospital insurance premium and the employer is required to remit a premium for every eligible employee. If there is no arrangement whereby the employer undertakes to pay part or all of the hospital insurance premiums, the employer is authorized to deduct premiums from wages.

This program is compulsory as stated above for employed persons where there are fifteen or more or electively where there are six to fourteen. The subscriber may pay direct but if not his employer will deduct from his wages. This program can have but one result in Ontario—the Blue Cross will be limited to privately employed persons, or groups under six and will be extremely handicapped; in fact, there is a rumor that Blue Cross of Ontario will cease to exist. Other provinces of Canada are having the same difficulties. This program does not cover medical service but points to a condition which could very readily be established and which almost does exist in some localities.

MILTON ALFRED DARLING

President-Elect



Milton A. Darling M.D.

Born in Branch County, Michigan, and a graduate of Coldwater High School, Milton Alfred Darling obtained his D.D.S. degree from the University of Michigan in 1911 and three years later received his M.D. degree from the same institution, followed by two years of residency in obstetrics and gynecology.

In the autumn of 1916, he begain practice in Detroit, later serving for two years in World War I as Captain in the Medical Corps (Field Hospital 15), 2nd Division, A.E.F. He was Senior Surgeon U.S.P.H. (Reserve) from 1943-45, and was President of the Wayne County Medical Society 1955-56. He has served as Department Head of Obstetrics and Gynecology, Grace Hospital, and Chief of Staff of that institution for eight years. He is also Consulting Obstetrician and Gynecologist for Florence Crittenton Hospital.

Dr. Darling is a Diplomate of the American Board of Obstetrics and Gynecology, a member of the Detroit Academy of Surgery and Fellow of the American College of Surgeons. He is a member of the American Medical Association and of the Detroit Academy of Medicine.

He is Past President of the Michigan Society of Obstetricians and Gynecologists, Detroit Institute of Cancer Research, and Detroit Chapter of International Torch Club. He is also a member of the Detroit Golf Club.

CHARLES N. HOYT

Councilor, Seventh District

Dr. Hoyt, Port Huron, was born in Grosse Pointe, Michigan in 1914, graduated from the Detroit University School in 1931, attended Hobart College and the University of Michigan, graduating from the University of Michigan Medical School in 1938.

His internship and medical residence was at St. Lukes Hospital, Chicago, 1938 to 40. He was a medical resident at Cook County Hospital from July, 1940 until January, 1941, after which he established general practice in Cedar Falls, Iowa, until July, 1942.

Dr. Hoyt entered military service serving eighteen months with the Air Force in Europe in an evacuation hospital, as a Captain in the Medical Corps. After the war, he established general practice in Port Huron, Michigan, and has been there since 1945.

He served as Chief of Staff of the Port Huron Hospital in 1956 and was President of St. Clair County Medical Society in 1957. This year he became a member of the Public Relations Committee serving the Michigan State Medical Society.

ARE WE TAKING THE BLUE SHIELD FOR GRANTED?

We doctors are just as human as our non-medical friends. And we might as well confess that we share all the perversities of human nature—most of which seem so magnified when people become patients.

One of mankind's most dangerous perversities is to take for granted so many of life's blessings which were secured to us only by heroic effort and sacrifice on the part of our forebears.

Thus it is with our political freedom. As John Philpot Curran warned our infant nation in 1790: "The condition upon which God hath given liberty

to man is eternal vigilance; which condition if he break, servitude is at once the consequence of his crime and the punishment of his guilt."

Twenty years ago, when the American Medical Association, in special session, endorsed the principle of voluntary health insurance, American doctors in many scattered places began the long hard task of creating American medicine's own unique instrument, that is now known as Blue Shield. Truly, these older brothers of ours struck a great blow for freedom when they built this voluntary prepayment program which now serves one of every four Americans.

In support of their efforts, we must apply our energies to further strengthen and refine Blue Shield. Leadership in the affairs of our Plan now and in the future is a responsibility we cannot delegate nor can we permit it to be abridged.

This will secure the real and practical benefits of the Blue Shield Program for the public good—a principle to which medicine has always been fundamentally dedicated.

Indeed, American medicine has too great a stake in the future of voluntary health insurance to ignore Blue Shield. For when we doctors created Blue Shield we not only pioneered the wilderness of prepayment and built our main bulwark against socialized medicine, we also identified ourselves with an idea and a program to which the people of America have given a tremendous endorsement.

Eternal vigilance is indeed the price of our freedom in medicine.

APPLICATION OF PSYCHOSOMATIC CONCEPTS

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REITER PROTEIN COMPLEMENT FIXATION TEST FOR SYPHILIS

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Michigan Foundation for Medical and Health Education, Inc.

PRESIDENT'S ANNUAL REPORT

By Earl Ingram Carr, M.D., *Lansing*

This annual meeting of the Michigan Foundation for Medical and Health Education, Inc., is the thirteenth since incorporation in September, 1945. All established activities have proceeded throughout 1957 as usual by continuation and repetition of the several sponsorships. providing two established lectureships, running the business of the student loan fund, and keeping ourselves available for reasonable services as requests arise.

Our intimacy with the Michigan Health Council made a personnel change in the Michigan Health Council of our concern when their efficient executive secretary, Mr. E. H. Wiard, resigned to re-enter business effective September 1. The successor in this position is Mr. John A. Doherty who is already exhibiting agression and talent.

The eleventh Michigan Rural Health Conference, to which we have been designated the financial sponsor since its early inception, was held in Ann Arbor January 22 and 23. The theme this year revolved around the atom in its relation to medicine and health. The development of the subject by distinguished speakers and resource people, numbering fifty-six, brought forth praise and compliments. "One of the best" is one of the most frequently expressed comments. More than 300 registered for the conference, despite poor and slushy roads and bad weather.

The President of the Foundation was on hand for remarks to open the conference. A conflicting obligation prevented his appearance at the banquet. We are indebted to Dr. Harry A. Towsley for representing the Foundation as banquet speaker to explain the MSMS Postgraduate Education Program which for many years has brought lectures twice a year to geographically selected regions for the benefit of remotely situated doctors.

The Foundation Lecture for the Michigan Clinical Institute in March in Detroit, was given by Charles B. Huggins, M.D., of the Ben May Laboratory for Cancer Research, University of Chicago, on the subject, "Control of Human Cancer by Endocrinology." The Foundation presented Dr. Huggins with a scroll.

The Biddle Lecture was given in Grand Rapids at the annual meeting of Michigan State Medical Society by the Vice President of UAW-CIO, Mr. Leonard Woodcock, substituting for Mr. Walter Reuther on the subject, "Medicine and Labor in These Changing Times."

A television program in December in Detroit credited the part that the Foundation takes in the Rural Health Conference.

Only one applicant who might have qualified for the Student Loan Fund made inquiry in 1957. Because of a miscarriage of his letter, the informative reply was delayed. No response to requirements has yet been received. One processed loan reported a year ago for $2,000.00, being delivered $500.00 per semester, has been drawn in full. Outstanding loans aggregate $11,663.12 plus the above-mentioned $500.00 payable next semester, totaling $12,163.12 on the audit date.

Gifts this year have been disappointing, only $210.00 having been received in birthday contributions. Investment earnings for 1957 aggregate $4,056.86.

The Auditors show a total of book value assets of $130,235.54 besides redemption value increase of $5,843.68 and the balance of the allocation by Ingham County Medical Society of $3,847.66, including credited interest of $160.78, all of which makes a net worth of $139,926.88 on the audit date.

Universal remembrance by all doctors of the LeFevre Plan to make a birthday contribution to the Foundation would produce needed growth of assets. Your trustees are eager to extend activities as rapidly as money can be acquired.

January 30, 1958

SECRETARY'S ANNUAL REPORT

By William J. Burns, LL.B., *Lansing*

The Secretary has executed the duties of his office according to the By-Laws and as provided in Robert's Rules of Order, pursuant to the instructions of the Board of Trustees and with the helpful guidance of President Carr and Treasurer Gardner.

The report of the Treasurer† indicates the utilization of the Student Loan Fund created to aid the medical education of chosen medical students. It is to be noted that all loans to the selected medical students have been paid in full by the Foundation.

†See next page.

TREASURER'S ANNUAL REPORT

By H. H. Gardner, M.D., *Birmingham*

The report of the Auditor, Kostman & Smith of Lansing, Michigan, indicates the financial status of the Foundation as of December 31, 1957.

STATEMENT OF ASSETS AND EQUITIES
December 31, 1957

ASSETS		
Michigan National Bank, Lansing, Michigan (Schedule 1)		$ 6,824.85
SECURITIES OWNED (Schedule 2)		
(Market or Redemption Value $117,591.25)		
U. S. Government Bonds	$44,220.75	
Canadian Government Bonds	14,343.75	
Railway Bonds	26,385.45	
Public Utility Bonds	2,703.50	
Bank Stocks	5,327.41	
Public Utility Stocks	18,766.71	
		111,747.57
NOTES RECEIVABLE		
Benjamin F. & Mary Koepke	2,000.00	
L. Edmond Eary, Jr.	1,600.00	
John C. Shelton	1,250.00	
Donald P. & Constance E. Jackson	2,500.00	
Russell F. & Dolores M. Smith	500.00	
Paul C. & Mrs. Linnell	2,313.12	
Richard Morin	1,500.00	
		11,663.12
TOTAL ASSETS		$130,235.54

(Continued in next column)

Note 1—A reserve in an amount equal to 20% of the student loans has been set up to cover the possibility of losses on these loans.

EXHIBIT A

EQUITIES	
RESERVE FOR STUDENT LOANS (Note 1)	$ 2,332.63
FUND EQUITY	127,902.91
TOTAL EQUITIES	$130,235.54

STATEMENT OF INCREASE IN ASSETS
December 25, 1956, to December 31, 1957

BALANCE December 25, 1956			$127,332.90
RECEIPTS			
Various donations	$ 210.00		
Canadian exchange	10.27		
Refund of expenses	1.98		
Dividends and interest—net of amortization and interest paid on purchase per Schedule 2	4,056.86		
TOTAL RECEIPTS		$4,279.11	
DISBURSEMENTS			
Michigan Rural Health Conference	$1,000.00		
Foundation lecture	166.85		
Meeting expense	19.72		
Safekeeping fees	46.00		
Auditing	75.00		
Fidelity Bond	62.50		
Safety deposit box	4.40		
Michigan Corporate Filing fee	2.00		
TOTAL DISBURSEMENTS		1,376.47	
NET INCREASE IN ASSETS			2,902.64
BALANCE December 31, 1957			$130,235.54

EXHIBIT B

SECURITIES OWNED—DECEMBER 31, 1958

BONDS HELD IN SAFE-KEEPING	Interest Rate	Maturity Date	Interest Paid To	Face Value Or Number Of Shares	Market Or Redemption Value At 12-31-57	Book Value 12-31-57	Income From 12-24-56 to 12-31-57	Less Amortization and Interest Paid On Purchase	Net Income For Year
U. S .Savings Bonds—Series "F"		8-1-58	Cumulative	$ 1,000.00	$ 962.00	$ 962.00	$ 62.00		$ 62.00
U. S. Savings Bonds—Series "G"	2½%	8- 1-58	8- 1-57	15,300.00	15,085.80	15,300.00	382.50		382.50
U. S. Savings Bonds—Series "G"	2½%	5- 1-61	11- 1-61	10,000.00	9,700.00	10,000.00	250.00		250.00
U. S. Savings Bonds—Series "G"	2½%	4- 1-62	10- 1-57	5,000.00	4,820.00	5,000.00	125.00		125.00
U. S. Treasurey Notes	2⅞%	6-15-58	12-15-57	8,000.00	7,939.20	7,952.50	230.00		230.00
U. S. Treasurey Notes	2⅞%	6-15-58	12-15-57	5,000.00*	4,962.00	5,006.25	143.75		143.75
Penn. R.R.—Equipment Trust	3¾%	4- 1-64	10-15-57	1,000.00	955.00	975.74	37.50		37.50
Chicago, Milwaukee, St. P. & P.	2⅞%	5- 1-63	11-10-57	5,000.00	4,606.25	4,661.31	143.75		143.75
Missouri Pacific R.R.	3⅜%	4- 1-63	10-15-57	1,000.00	950.00	949.45	33.75		33.75
Dominion Canada 6th Victory Loan	3 %	6- 1-60	12- 1-57	15,000.00	14,887.50	14,343.75	450.00		450.00
Chicago & Northwestern R.R. Co. Equipment Trust Certificates	3¾%	6-15-58	12-15-57	5,000.00	4,968.75	5,000.00	187.50	$ 13.93	173.57
Detroit Edison Co.— Convertible Debentures	3¼%	2- 1-69	8- 1-57	800.00	1,164.00	800.00	26.00		26.00
Detroit Edison Co.— Convertible Debentures	3¾%	9-14-71	9-14-57	1,000.00	1,175.00	1,003.50	37.50	.30	37.20
Chicago, Burlington & Q. R.R.	3⅛%	2- 1-60	8- 1-57	10,000.00	9,700.00	10,034.49	312.50	11.50	301.00
Chicago, Burlington & Q. R.R.	2⅝%	1- 1-61	7- 1-57	5,000.00	4,706.25	4,764.46	65.65	17.50	48.15
Consolidated Edison Co. N. Y.— Debentures	4½%	1972	8-22-57	400.00	442.00	460.00	7.52		7.52
Consumers Power Debenture	4⅜%	11- 1-72		500.00	552.50	500.00			
					$ 87,576.25	$ 87,653.45	$ 2,494.92	$ 43.23	$ 2,451.69
STOCKS HELD IN SAFE-KEEPING									
Continental Illinois Nat. Bank & Trust Company of Chicago —Common				$ 76.00	$ 6,270.00	$ 5,327.41	$ 304.00		$ 304.00
Boston Edison Co.—Capital				110.00	5,390.00	5,625.00	308.00		308.00
Consumers Power Co.—Common				130.00	6,305.00	4,520.86	308.06		308.06
Detroit Edison Co.—Capital				200.00	7,600.00	4,603.41	400.00		400.00
Consolidated Edison of N. Y. —Common				100.00	4,450.00	4,017.44	240.00		240.00
					$ 30,015.00	$ 24,094.12	$ 1,560.06		$ 1,560.06
HELD BY TRUSTEE									
U. S. Savings Bond—Series "G" (Matured)	2½%	2- 1-57	2- 1-57				45.11		45.11
					$117,591.25	$111,747.57	$ 4,100.09	$ 43.23	$ 4,056.86

*Safekeeping receipt of 1st National Bank of Chicago

SCHEDULE 2

Michigan State Medical Society

September Session of The Council
September 28-October 3, 1958



MEMBERS OF THE COUNCIL, 1958-59

Standing (left to right): H. H. Hiscock, M.D., Flint; William Bromme, M.D., Detroit; E. S. Oldham, M.D., Breckenridge; B. T. Montgomery, M.D., Sault Ste. Marie; C. Allen Payne, M.D., Grand Rapids; O. B. McGillicuddy, M.D., Lansing; W. W. Babcock, M.D., Detroit; Charles N. Hoyt, M.D., Port Huron; Wilfrid Haughey, M.D., Battle Creek; O. J. Johnson, M.D., Bay City; G. T. McKean, M.D., Detroit.

Seated (left to right): B. M. Harris, M.D., Ypsilanti; J. J. Lightbody, M.D., Detroit; K. H. Johnson, M.D., Lansing; M. A. Darling, M.D., Detroit; A. E. Schiller, M.D., Detroit; D. Bruce Wiley, M.D., Utica; G. B. Saltonstall, M.D., Charlevoix; L. Fernald Foster, M.D., Detroit; Ralph W. Shook, M.D., Kalamazoo; and Wm. M. LeFevre, M.D., Muskegon.

Absent on Society business: H. J. Meier, M.D., Coldwater; D. G. Pike, M.D., Traverse City; George W. Slagle, M.D., Battle Creek; and T. P. Wickliffe, M.D., Calumet. W. A. Hyland, M.D., Grand Rapids, was in Europe.

HIGHLIGHTS

Eighty-one items were presented and discussed by the twenty-five members of The Council (eighteen councilors, and the elected officers) at the two meetings held coincident with the MSMS Annual Session in Detroit. The following matters and problems facing the medical profession of Michigan were discussed.

- Reorganization of The Council: D. Bruce Wiley, M.D., Utica, was re-elected as Chairman.
 A. E. Schiller, M.D., Detroit, was chosen as Vice Chairman.
 Wm. L. LeFevre, M.D., Muskegon, was selected as Chairman of the County Society Committee to succeed himself.
 Ralph W. Shook, M.D., Kalamazoo, was re-elected head of Finance Committee.
 B. M. Harris, M.D., Ypsilanti, was again chosen for the post of Chairman of the Publication Committee.

- The monthly Financial Reports were studied and approved as well as bills payable which were ordered paid.

(Continued on Page 1596)

- New MSMS Headquarters Building. Architects M. Yamasaki & W. R. Jarratt of Birmingham, made a visual presentation of final preliminary plans, including lantern slides and model of the 47 x 155 foot building to be erected in East Lansing.

 The final preliminary plans were approved by The Council and recommended to the 1958 House of Delegates.

- Medicare. Two amendments to the existing contract, correcting listing of typographical errors, were presented and the MSMS President was authorized to sign the revised contract; Michigan Medical Service was requested to continue as fiscal agent of the State Society in the Medicare program.
 An MSMS Representative to attend the AMA's meeting on Medicare, scheduled for Minneapolis, December 1, was authorized.
 The Council expressed gratitude to Mr. Jay C. Ketchum for the way he devotedly served the Michigan Medical Profession in the last few arduous months —even to endangering his health.

- President George W. Slagle, M.D., reported he had been advised that the American Osteopathic Association at its July 13-18, 1958, Convention in Washington, D. C., had changed its constitutional object to read "The object of this association shall be to promote the public health, to encourage scientific research and to maintain an improved high standards of medical education in Osteopathic Colleges."

- A Vote of commendation was extended to Doctor Slagle on his excellent work as MSMS President during the past year.

- Michigan Relative Value Scale. The Medical Care Insurance Committee was given the specific task of developing this Scale; further, protocol was created that all MCIC reports shall be presented to The Council or its Executive Committee. Inasmuch as the Medical Care Insurance Committee is a Committee of The Council. The Councilor District MCI Committees were declared Committees of The Council.

- Committee reports included Committee on Big Look, meeting of September 19; Medical Care Insurance Committee, meeting of September 20; Uniform Fee Schedule for Governmental Agencies, August 24; Committee on Study of Insurance Problems for MSMS Members, September 10—including approval of plan B covering group life insurance; Liaison Study Committee on hospital staff payments, September 11; Vocational Rehabilitation Committee, August 20; Permanent Advisory Committee on Fees, August 22; Scientific Radio Committee, August 27; National Defense Committee, August 27; Rheumatic Fever Control Committee, September 10; Advisory Committee to Michigan State Medical Assistants Society, September 14; Committee on Committees, September 19; meeting of Ubiquitous Host, September 25; Wayne County District Committee MCIC, September 9.

- The Supplemental Report of The Council was given careful review and was approved, for reference to the House of Delegates.

- A questionnaire was authorized to be sent to all MSMS members as a follow-up of the Annual Session, to gain recommendations for improvement of the convention and to obtain suggestions for speakers and topics for the 1959 Annual Session.

- International Drilling Machine's letter re their plans to organize a non-profit foundation to include outpatient clinics, hospitals, etc., was given consideration and referred to the American Medical Association, for advice and action.

- Jenkins Keogh: Legal Counsel Lester P. Dodd reported that this bill had been adopted by the House but had been bottled up in the Senate of Congress; however, it might be adopted soon by Congress and he anticipates numerous schemes—some good and some of no value—would be presented to doctors of medicine throughout the land, immediately upon approval of this measure. Mr. Dodd felt studies now should be made to take full advantage of such legislation by presentation of a bonafide, equitable plan to Michigan physicians. Mr. Dodd was authorized to explore, investigate and pre-develop such a plan, working with trust companies, to gain group advantage for doctors of medicine from the Jenkins Keogh legislation.

- Michigan Medical Service. The Council took action that no list of participating or nonparticipating physicians in any contract between members of the Michigan State Medical Society or any other insurance carrier approved by the Michigan State Medical Society be divulged.

- Permanent Secretary to MCIC. The Committee on selection included G. B. Saltonstall, M.D., Chairman, L. Fernald Foster, M.D., Max L. Lichter, M.D., Ralph W. Shook, M.D., G. W. Slagle, M.D. and Messrs. Wm. J. Burns and H. W. Brenneman. The Council declared that the MCIC secretary shall be under and responsible to the MSMS Secretary.

- All Councilors reported on the condition of the profession in their Districts.

- Michigan Health Commissioner A. E. Heustis, M.D., presented a progress report on poliomyelitis. In the drive for more complete immunization of young children, The Council directed the MSMS Child Welfare Committee to aid the State Health Commissioner, and also referred the matter to the Public Health Committee of the Wayne County Medical Society, offering any assistance the MSMS can give it.

- Official recognition of and thanks to retiring Councilors and Officers for important contributions to MSMS over the years was placed in the minutes of The Council; as was official thanks to all who helped with the 1958 Annual Session which registered a total of 4,035; also a vote of thanks was expressed to members of the MSMS Executive Office staff for their zeal and splendid work in connection with this outstanding 1958 Annual Session.



The control room of the television studio is the nerve center of activities during the final rehearsals for the special one-hour show. The technician in the pit at left makes an adjustment in his equipment as Jack Pardee, of MSMS, and Gilbert B. Saltonstall, M.D., MSMS President, look on. Also pictured are Director James Murray, with headset, and Writer Jack Kantner, chin in hand. The technician at the rear awaits a cue to operate the video tape sequences.



Sidney E. Chapin, M.D., Dearborn, conducted the physical examination performed on the show.



Coleman Mopper, M.D., Detroit, left, is assisted by Edward Mercantini, M.D., Detroit, as they perform a skin planing procedure.



Arthur E. Schiller, M.D., Detroit, provided the medical commentary during the show.



Moderator Bob Murphy introduces the motivation scene for the physical examination. The actors pictured are Marilyn Turner and Ernie Winstanley.



Clarence Livingood, M.D., right, head of the Department of Dermatology, Henry Ford Hospital, performs a biopsy of a surface lesion. James F. Hitselberger, M.D., Detroit, left, assisted in the operation.

TV Cameras Look in on "The Family Doctor"

An estimated one and a quarter million people in the Detroit area had a behind-the-scenes look at what goes on in a doctor's office by watching a special one-hour television show on WJBK-TV, Detroit, September 28, at 5:30 p.m.

The program, "The Family Doctor," was produced by WJBK-TV in co-operation with the Michigan State Medical Society, the Wayne County Medical Society and the Michigan Health Council.

Three surgical procedures which can be performed in a doctor's office, a demonstration of skin testing and a physical examination were all presented during the special telecast.

Bob Murphy, of WJBK-TV, acted as the moderator. Arthur E. Schiller, M.D., of Detroit, provided a running scientific commentary during the production. The surgical procedures and the skin testing had been recorded several weeks prior to the show on a new video tape process. As they were presented at regular intervals in the show, Dr. Schiller described what was taking place.

The first procedure was the removal of a keratosis by three methods. Charles Courville, M.D., of Detroit, used a patient to show how a keratosis can be removed simply in a doctor's office with diathermy, carbon dioxide snow or by curetting after pain is deadened with ethyl chloride spray.

At the conclusion of this demonstration, two actors set the stage for the motivation in the physical examination sequences. In the skit a husband complained of stomach pains after eating his wife's cooking. She insisted it wasn't her cooking but something the matter with his inner workings. As a result, she called their family doctor to make an appointment for her husband to have a physical exam.

There followed an actual examination of the actor-patient by Sidney E. Chapin, M.D., of Dearborn. The exam included an EKG and lab tests—all performed before the television cameras. The diagnosis: duodenal ulcer.

In the other procedures, Coleman Mopper, M.D., of Detroit, assisted by Edward Mercantini, M.D., of Detroit, carried out a skin planing. The face of the female patient had been pitted with acne scars. While this was going on, Doctor Schiller and Bob Murphy also discussed the advances made in skin planing since World War II.

The third procedure, a biopsy, was conducted by Clarence Livingood, M.D., head of the Department of Dermatology at Henry Ford Hospital. He was assisted by James F. Hitselberger, M.D., of Detroit. The sequence was carried out in three parts. First, Doctor Livingood showed various types of skin lesions present on the skin of a patient. Then he removed a lesion for biopsy. In the third stage, he showed how the biopsy was carried to completion with a microscopic examination.

Homer A. Howes, M.D., of Detroit, assisted by his nurse, Mrs. Hazel Johnston, R.N., demonstrated scratch tests for ragweed sensitivity and an intradermal test on a patient allergic to certain foods.

At the end of the program, Gilbert B. Saltonstall, M.D., Charlevoix, President of MSMS, introduced the Honorable Louis Miriani, Mayor of Detroit, who proclaimed Family Doctor Week in the Detroit area.

The special one-hour telecast was written and produced by Jack Kantner of the Michigan Health Council. The program was directed by James Murray, of WJBK-TV. Other WJBK-TV personnel who were instrumental in setting up the time for the program and making arrangements for a smooth functioning production were Ralph Rust, TV Program Production Manager, and P. J. Frommert, Executive Producer.

Technical advice for the production was provided by a special television committee of the sponsoring organizations. They were Arthur E. Schiller, M.D., Detroit; Sidney E. Chapin, M.D., Dearborn; and R. W. Teed, M.D., Ann Arbor.



Gilbert B. Saltonstall, M.D., President of the Michigan State Medical Society, studies his script before introducing the Mayor of Detroit.

WAYNE COUNTY MEDICAL SOCIETY AUXILIARY DIRECTORY CORRECTION

Our attention has been directed to an error on Page 77 of the Directory of Members, Michigan State Medical Society, September, 1958. Listed herewith is the corrected membership directory of the Southern Branch-Wayne County Medical Society Auxiliary. Our apologies for the error in the original listing.

—The Editor

WAYNE COUNTY MEDICAL SOCIETY AUXILIARY SOUTHERN BRANCH

Alban, Mrs. Emil J., Jr.....15287 Philomene, Allen Park
Allen, Mrs. John V.....15265 Philomene, Allen Park

Beck, Mrs. Stanley M., Jr.....15649 Churchill, Wyandotte
Bennett, Mrs. H. Stanley.....
29767 East River Road, Grosse Ile
Bott, Mrs. Edmund T.....
1804 Thirteenth Street, Wyandotte
Bower, Mrs. Donald W.....
1005 King's Highway, Lincoln Park
Boyd, Mrs. John Huntley....2052 Church Place, Trenton
Braden, Mrs. Robert G.....
25060 East River Road, Grosse Ile
Brown, Mrs. Charles H.....1729 Davis, Wyandotte
Brown, Mrs. Robert A.....
22623 West River Road, Grosse Ile
Bruer, Mrs. B. J.....9037 Park Avenue, Allen Park
Butler, Mrs. Harry R.....9415 Mortonview, Dearborn

Cahalan, Mrs. Joseph L.....13381 Catalpa, Wyandotte
Cameron, Mrs. Arthur J.....155 Vinewood, Wyandotte
Cassel, Mrs. Harry E...1816 Fifteenth Street, Wyandotte
Coan, Mrs. Glenn L...24099 West River Road, Grosse Ile
Cook, Mrs. James A...2246 Twentieth Street, Wyandotte

Deering, Mrs. Robert J.....
26225 West River Road, Grosse Ile

Easterly, Mrs. Robert L.....
2514 Eighteenth Street, Wyandotte
Engel, Mrs. Earl H.....33 Emmons Court, Wyandotte
Erickson, Mrs. Eldon W.....
29385 East River Road, Grosse Ile

Firnschild, Mrs. Paul G.....10528 Andrews, Allen Park
Foote, Mrs. James A.....870 Winchester, Lincoln Park
Frothingham, Mrs. George E.....
1657 Twenty-Third Street, Wyandotte

Ganos, Mrs. Thomas.....9238 Vine, Allen Park
Gilbert, Mrs. Harold R.....13146 Phalps, Wyandotte

Herkimer, Mrs. Daniel R.....
1802 Buckingham, Lincoln Park
Hileman, Mrs. S. Lee.....755 New York, Lincoln Park
Hillyer, Mrs. John W.....
29897 Red Cedar Drive, Flat Rock
Hoffer, Mrs. Thomas.....1556 Walnut, Dearborn
Holmes, Mrs. George F.....23 Emmons Court, Wyandotte
Honor, Mrs. William H.....
20446 East River Road, Grosse Ile
Hookey, Mrs. John A.....
2872 Van Alstyne Boulevard, Wyandotte

Jones, Mrs. William J...15839 Crescent Drive, Allen Park

Kelly, Mrs. John J.....
2820 Twenty-Second Street, Wyandotte
Knaggs, Mrs. Earl J.....13179 Phelps, Wyandotte
Knapp, Mrs. Byron S.....7536 Colwell, Allen Park
Knox, Mrs. Ross M.....15400 Philomene, Allen Park
Kowaleski, Mrs. John J.....9646 Vine Street, Allen Park
Kuhn, Mrs. Richard F.....27857 Elba Drive, Grosse Ile
Kutsche, Mrs. John D.....2616 Lenox, Trenton
Kwasiborski, Mrs. Sanley A.....9495 Island, Grosse Ile

LaBerge, Mrs. J. M.....1767 Ash Street, Wyandotte
Lebamoff, Mrs. Alexander T...7427 Rosedale, Allen Park
Libbrecht, Mrs. Robert V...15330 Wick Road, Allen Park

Maibauer, Mrs. Fred P.....1742 Ash Street, Wyandotte
Maynard, Mrs. Fred M.....9366 Manor, Allen Park
McColl, Mrs. Charles W.....
2285 Twenty-First Street, Wyandotte
McGlaughlin, Mrs. N. D.....
2062 Twenty-Second Street, Wyandotte
Mikesell, Mrs. Wesley B., Jr.....
24650 Kensington, Taylor Township
Momcilovich, Mrs. Bozidar.....
24537 Laurel Drive, Flat Rock
Morley, Mrs. Arthur R., Jr.....
15753 Promenade, Allen Park
Murray, Mrs. Robert J.....2906 Riverside Drive, Trenton

Nagle, Mrs. John W...26633 West River Road, Grosse Ile
Noe, Mrs. Joseph T.....8436 Church, Grosse Ile

Proud, Mrs. Robert H.....
29155 Evergreen Avenue, Flat Rock
Proud, Mrs. Russel F...29883 Red Cedar Drive, Flat Rock

Ray, Mrs. Kenneth J.....28059 Elba Drive, Grosse Ile
Ridge, Mrs. Ralph W.....
3227 Van Alstyne Boulevard, Wyandotte
Rinkel, Mrs. Robert W...21800 Willoway Road, Dearborn
Roberts, Mrs. Arthur J.....859 Winchester, Lincoln Park
Rogers, Mrs. J. Dudley.....
2329 Twentieth Street, Wyandotte

Schroeder, Mrs. Carlisle F.....
26505 East River Road, Grosse Ile
Schwarz, Mrs. Frank W...321 South Claremont, Dearborn
Schwocho, Mrs. Niles H.....
15917 Crescent Drive, Allen Park
Speck, Mrs. Carlos C.....14839 Markese, Allen Park
Stryker, Mrs. Walter A.....
21604 East River Road, Grosse Ile
Szladek, Mrs. Frank J.....28315 Elba Drive, Grosse Ile

Taurence, Mrs. William H.....
2316 Twentieth Street, Wyandotte
Tenaglia, Mrs. Thomas A.....
820 King's Highway, Lincoln Park
Thomson, Mrs. Daniel C.....18459 Parke Lane, Grosse Ile

Van Becelaere, Mrs. Lawrence A.....
21355 Knudsen Drive, Grosse Ile

White, Mrs. Donald H.....20685 Meridian, Grosse Ile
Whitelock, Mrs. Edward H.....
650 King's Highway, Wyandotte
Woodley, Mrs. Bernard J.....3271 Pale Avenue, Trenton
Worzniak, Mrs. Joseph J.....1639 Davis, Wyandotte

MIDLINE INCISION FOR CHOLECYSTECTOMY

(Continued from Page 1572)

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3. Summers, J. E.: Abdominal incisions; present status in the United States. Am. J. Surg., 84:177-181 (Aug.) 1952.
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In everyday office practice as well as under hospital conditions Dartal is consistent in its effects as few tranquilizers are.

Dartal promotes emotional balance

Dartal effectively decreases or relieves emotional hyperactivity and psychomotor excitement.

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SEARLE

*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

DIABETES

Diabetes, for a long period of years, has ranked among the most common ways to die in Michigan. The record shows:

In 1930, it was the tenth leading cause of death.
In 1940, it was the eighth leading cause of death.
In 1949, it was the seventh leading cause of death.
In 1957, it was the sixth leading cause of death.

The Michigan diabetes death toll in 1957 was over 1,500. A comparison of death rates for the ten leading causes of death in the United States and in Michigan during 1956 shows that diabetes is the only leading cause of death in adults for which the Michigan rate is higher than the rate for the nation as a whole.

In terms of diabetes program, the specific objectives of the Michigan Department of Health are:

Screening.—To help screen selected groups of apparently healthy adults to discover evidence of previously unrecognized diabetes. The purpose of screening is to help get the patient to his doctor when the disease is in the early, asymptomatic stage, and also to contribute to scientific knowledge about the incidence and prevalence of diabetes.

Patient Services.—Upon referral by the practicing physician, to assist with the care and/or education of patients.

Professional and Public Education.—So far, a number of diabetes projects have been carried out with the co-operation of medical societies and local health departments and with individual practicing physicians. These include: mass diabetes detection campaigns which have reached 26,128 people since 1954; nutrition consultation to staffs of medical care facilities; a pilot project in training classes for diabetes patients referred by their physicians; home nursing services, including food and nutrition consultation by request of the physician; distribution of limited quantities of educational materials; and several training conferences on diabetes.

Plans for the Future

It is the intent of the department to continue to work with interested and responsible groups in co-operative efforts such as the following:

1. Screening
2. Morbidity studies, including prevalence and incidence within selected groups
3. Patient education, nutrition consultation and nursing service for the patient and his family upon referral by the practicing physician
4. Education to help create greater public and professional understanding of diabetes, and to further encourage the individual to assume responsibility for his own health and the health of his family
5. In-service training programs for community health agency personnel and others, emphasizing the supporting role of the health department in diabetes control.

Conclusion

The Department believes that diabetes is not only a major health problem today, but, because of the hereditary factor, will become increasingly important in the future.

Its interest is to ensure the most effective combination of private individual incentive and community resources to help practicing physicians meet this particular problem—the same kind of a mutually acceptable effort which has proved and established itself in so many other programs in the past.

CERTIFICATE OF DEATH

Section 326.9, Compiled Laws, 1948 reads in part as follows: "The attending physician or in the absence of an attending physician, the coroner shall fill out and sign the medical certificate of death or stillbirth within 24 hours after death. The funeral director shall then state over his signature and address the date and place of intended burial, cremation or to which such body is to be removed, and present the completed certificate to the registrar for a permit for burial, removal or other disposition of the body.

"The name of each person who signs the certificate of death or stillbirth as herein required shall be legibly printed, typewritten or stamped upon such certificate immediately beneath the signature of such person."

AAIT PRESIDENT

Don E. Gilbert, chief inhalation therapist at the University of Michigan Medical Center, was appointed president of the American Association of Inhalation Therapists at the annual meeting, Wednesday, November 12, 1958.

Gilbert organized the Inhalation Therapy Department at the University of Michigan in 1950. One of the first of its kind in the country, the department has become a model for hospitals throughout the United States. Gilbert is author of a handbook on inhalation therapy published this fall.

The AAIT is consponsored by the American College of Chest Physicians and the American Society of Anesthesiologists. It has 700 members in the United States and Canada.

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Write for additional information regarding other uses which include management of hiccup and reflex vomiting, as well as relief of discomfort associated with laryngoscopy, esophagoscopy, gastroscopy and the passage of esophageal and gastric tubes.

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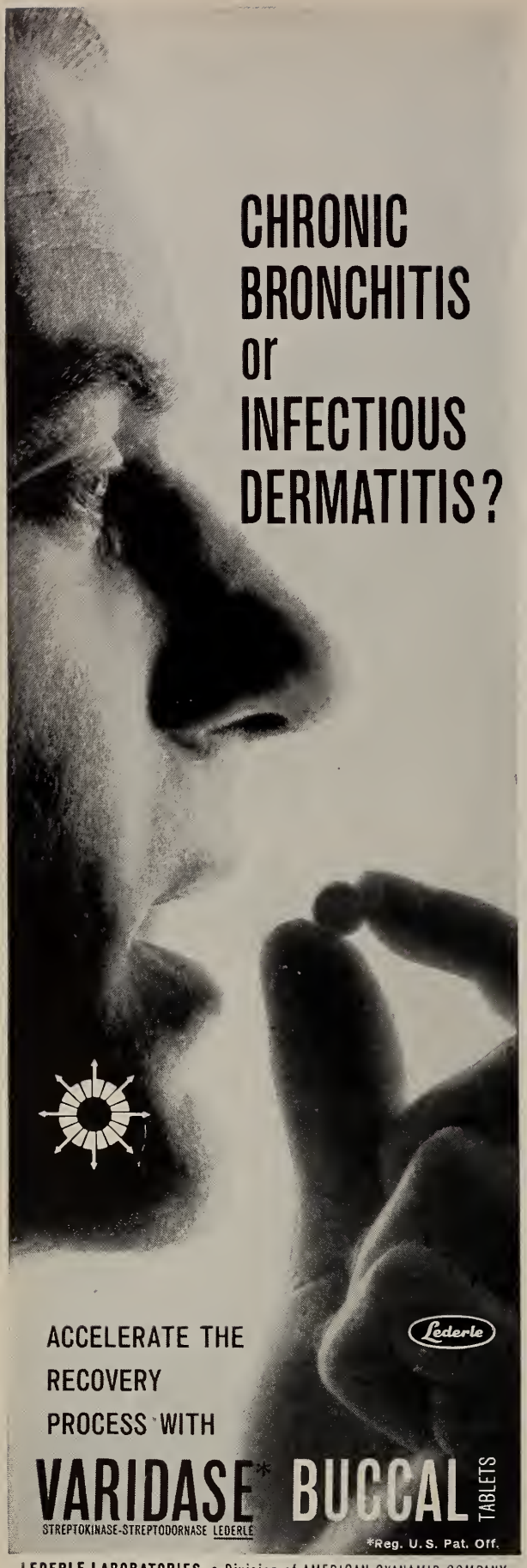
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In Memoriam

JAMES ETHELBERT DAVIS, M.D., eighty-eight, Dexter pathologist, died August 17, 1958.

A native of Woodstock, Ontario, Doctor Davis attended the Woodstock Collegiate Institute before studying pharmacy at the Detroit College of Medicine. After receiving the Degree of Ph.G., he entered the Detroit College of Medicine, graduating in 1896 with his M.D. degree. In 1917 he received an M.A. degree in Pathology from the University of Michigan, and in 1922 he attended the University of Vienna where he studied pathology, specializing in the field of obstetrics and gynecology.

In 1918, Doctor Davis became Professor of Pathology at Wayne University College of Medicine. Several years later he was appointed Professor of Pathology and Chairman of the Department. In this capacity he served until his retirement in 1940.

In 1922, he was president of the Wayne County Medical Society.

BERT U. ESTABROOK, M.D., seventy-eight, Detroit physician, died September 8, 1958.

Doctor Estabrook, a native of Detroit, was graduated from the Detroit College of Medicine in 1903 and had been a Detroit Deputy Health Commissioner for 25 years prior to his retirement in 1947.

He was a member of Phi Rho Sigma fraternity, the Detroit Athletic Club and the S.S. Peter and Paul Jesuit Church.

RAY L. FELLERS, M.D., seventy-one, Detroit physician, died September 12, 1958.

A native of Elliston, Ohio, Doctor Fellers was a Detroit resident for 46 years, was a graduate of the Detroit College of Medicine and staff physician at Mt. Carmel Mercy and Providence hospitals.

He was a member of the Michigan Sovereign Consistory of the Shrine, Clam Lake Lodge F&AM, and the Elks Lodge.

SHERMAN GREGG, M.D., seventy-eight, Kalamazoo physician for forty-four years, died August 27, 1958.

Born near Coloma, Doctor Gregg lived in Ann Arbor and St. Joseph before moving to Kalamazoo in 1914. He attended the University of Michigan, Rush Medical School, Chicago, and Harvard University. Doctor Gregg was a 33rd Degree Mason, the oldest past commander of Peninsular Commandery No. 8, Knights Templar.

He was past master of St. Joseph Lodge No. 437, F & AM; Fidelity Lodge No. 513 and Anchor Lodge of S.O. 87; a member of Chapter 13, Royal Arch Masons; Kalamazoo Council No. 63, R. & S.M.; past most wise master of the Robinson Chapter of Rose Croix; past sovereign of the St. Vincent Conclave of the Red Cross of Constantine; a member of the Royal Order of Scotland; and a member of Saladin Temple of the Shrine;

(Continued on Page 1606)

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specific desensitization for *lasting immunity

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SPECIFIC DESENSITIZATION . . .

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is obtained by desensitizing your patient for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction for each. Specific desensitization against irritants such as foods, epidermals, dust, fungi, bacteria and pollens immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For your patients that have already been skin tested by any means, simply send their list of offenders to the Allergy Division. Prompt 7-10 day service on all Rx's.

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SHERMAN GREGG, M.D.

(Continued from Page 1604)

and on the advisory board of DeMolay. He was also a member of the Quatuor Coronati, Corresponding Circle of London.

STEPHEN LEE HILEMAN, M.D., fifty-nine, Ecorse physician, died in the crash of his private plane, September 24, 1958.

Formerly Ecorse City Physician for ten years, he had practiced in Ecorse since his graduation from Wayne State University thirty years ago. He specialized in industrial surgery and was the physician for several downriver industrial concerns.

Doctor Hileman had been flying for nine years and had owned the plane in which he crashed for two years.

ALFRED E. HILLENBRAND, M.D., forty-nine, a Detroit general practitioner, died September 26, 1958. Doctor Hillenbrand was a staff member of Bon Secours Hospital. He was a graduate of Wayne State University Medical School and a World War II Air Force Captain.

ARCHIBALD E. MAC GREGOR, M.D., eighty-three, Battle Creek, died September 17, 1958. Born in Saginaw in 1875, Dr. MacGregor took teacher's training in Valparaiso, Indiana, and taught school for four years before undertaking his medical education. He graduated in 1901 from the Detroit College of Medicine and took his residency at Fort Street Hospital in Detroit.

Doctor MacGregor maintained memberships in Masonic Orders, the Athelstan Club, Rotary Club and the Battle Creek and Gull Lake Country Clubs.

DONALD H. McRAE, M.D., seventy-five, Detroit physician for fifty-three years, died September 8, 1958. A native of Wilksport, Ontario, Doctor McRae was a 1905 graduate of Wayne Medical School. For the last nine years, he had operated the Lincoln Clinic of Detroit.

He was a member of Scottish Rite, James A. Cliff Lodge No. 424, F. & A.M. He served as a first lieutenant in the Medical Corps in World War I and was attached to the Mayo and Ford Hospital units.

CLAUDE V. RUSSELL, M.D., seventy-seven, Lansing surgeon for fifty years, died September 25, 1958.

Reportedly the first Michigan physician to use radium in private practice for the treatment of cancer, Doctor Russell received his medical education from the University of Wisconsin, University of Chicago and Rush Medical College.

A native of Wisconsin, he had made his home in Lansing for the past fifty years, and was a member of Rotary, Masonic Lodge and Plymouth Congregational Church.

Doctor Russell, during his long active medical career, had been chief of staff at St. Lawrence and Edward W. Sparrow Hospitals.

(Continued on Page 1608)

Say you saw it in the Journal of the Michigan State Medical Society



all cold symptoms

New timed-release tablet provides:

...the superior decongestant and antihistaminic action of Triaminic

...non-narcotic cough control as effective as with codeine, but without codeine's drawbacks

...an expectorant to augment demulcent fluids

...the specific antipyretic and analgesic effect of well-tolerated APAP

...the prompt and prolonged activity of timed-release medication

Each* TUSSAGESIC *Tablet contains:

TRIAMINIC®	50 mg.
(phenylpropanolamine HCl	25 mg.;
pheniramine maleate	12.5 mg.;
pyrilamine maleate	12.5 mg.)
Dormethan (brand of dextro-methorphan HBr)	30 mg.
Terpin hydrate	180 mg.
APAP (N-acetyl-para-aminophenol)	325 mg.

To reduce upper respiratory congestion and irritating secretions.

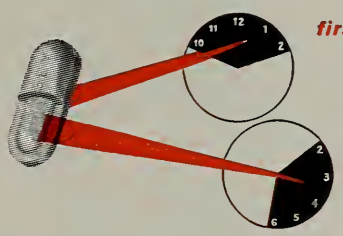
For non-narcotic control of the cough reflex.

To augment demulcent respiratory secretions.

For specific, highly effective antipyresis and analgesia.

Tussagesic Tablets provide relief from *all* cold symptoms in minutes, lasting for hours.

Dosage: One tablet in the morning, mid-afternoon, and in the evening, if needed. The tablet should be swallowed whole to preserve the timed-release action.



first—3 to 4 hours of relief from the outer layer

then—3 to 4 more hours of relief from the inner core

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(Continued from Page 1606)

EARL R. SWIFT, M.D., seventy-five, Lakeview physician, died August 5, 1958. A native of Cleveland, Ohio, Doctor Swift spent the past thirty-four years of his life in Lakeview.

GORDON L. WILLOUGHBY, M.D., fifty-eight, a Flint surgeon, died September 25, 1958.

Born in Chesley, Ontario, Doctor Willoughby received his medical degree from the University of Manitoba before moving to Flint in 1926. During World War II, the Army assigned him to the 15th Evacuation Hospital throughout the Tunisian, Sicilian and Italian campaigns. Attaining the rank of major, he served directly behind the front lines. In the Anzio beachhead, he slept in foxholes and performed operations in the midst of battle.

Doctor Willoughby was on the staffs of Hurley, McLaren General and St. Joseph Hospitals.

RUSSIAN MEDICAL DICTIONARY

The Russian-English Medical Dictionary compiled by Stanley Jablonski of the National Library of Medicine staff is now off the press. It is available at $11, from Academic Press, Inc., 111 Fifth Avenue, New York 3, New York.

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NEWS MEDICAL

MICHIGAN AUTHORS

Walker A. Lea, Jr., M.D., Temple, Texas, and **William B. Taylor, M.D.**, Ann Arbor, are the authors of an article entitled "Gamma Globulin In The Treatment of Herpes Zoster," published in *Texas State Journal of Medicine,* August, 1958.

Richard M. Berg, M.D., and **Joseph O. Reed, M.D.**, Detroit, are the authors of an article entitled "Congenital Tracheo-esophageal Fistula Without Stresia of the Esophagus," published in the *Harper Hospital Bulletin,* July-August, 1958.

J. C. Cook, M.D., K. L. Krabbenhoft, M.D., and **R. Songe, M.D.**, Detroit, are the authors of an article entitled "Solitary Benign Cyst-like Lesions Of The Long Bones in Children," published in *Harper Hospital Bulletin,* July-August, 1958.

W. S. Reveno, M.D., Detroit, is the author of an article entitled "Gleanings—1958 Meeting, American Goiter Association," published in *Harper Hospital Bulletin,* July-August, 1958.

H. C. Moritz, M.D., Detroit, is the author of an article entitled "Unusual Lesions In The Newborn—Case Report," published in *Harper Hospital Bulletin,* July-August, 1958.

John S. DeTar, M.D., Milan, is the author of an editorial entitled "The Family Physician, Which Doctor?," published in *Current Medical Digest,* August, 1958.

Kenneth W. James, M.D., and **John B. Tisserand, Jr., M.D.**, Ann Arbor, are the authors of an article entitled "Treatment of Acne Vulgaris," published in *GP,* September, 1958.

Christian Helmus, M.S., Grand Rapids, is the author a paper entitled "Acute Otitis Media in Children," published in the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY and digested in *Digest of Ophthalmology and Otolaryngology,* September, 1958.

Reed O. Dingman, M.D., F.A.C.S., Ann Arbor, is the author of an article entitled "Surgical Treatment of Defects of the Scalp," read at the Twenty-second Annual Congress of the United States and Canadian Sections, International College of Surgeons, Chicago, September 9 to 13, 1957, and published in *The Journal of the International College of Surgeons,* August, 1958.

Harold A. Oberman, M.D., and **Graydon A. Long, M.D.**, Ann Arbor, are the authors of an article entitled "Liposarcoma of the Mediastinum," published in the *University of Michigan Medical Bulletin,* July, 1958.

Sheff D. Olinger, M.D., Robert D. Currier, M.D., and **Russell N. DeJong, M.D.**, Ann Arbor, are the authors of an article entitled "Clinical Experience with Chlorzoxazone (Paraflex) in Neurotic Disorders," published in the *University of Michigan Medical Bulletin,* July, 1958.

Robert G. Lovell, M.D., Ann Arbor, is the author of an article entitled "Evaluation of the Ethical Performance of Medical Students by Their Peers," published in the *University of Michigan Medical Bulletin,* July, 1958.

Leonard E. Himler, M.D., Ann Arbor, is the author of an article entitled "Motivation of the Patient in Rehabilitation," presented before the Conference on Rehabilitation of the Patient at Home or in Nursing Homes, May, 1958, Ann Arbor, and published in *Industrial Medicine and Surgery,* September, 1958.

Carl H. Almond, M.D., and **Robert E. L. Berry, M.D.**, Ann Arbor, are the authors of an article entitled "Significance of the Fall of Serum Sodium Following Operative Trauma," read at the Fifteenth Annual Assembly of the Central Surgical Association, Columbus, Ohio, February, 1958, and published in *A.M.A. Archives of Surgery,* September, 1958.

Steven J. Figiel, M.D., Leo S. Figiel, M.D., and **Desmond K. Rush, M.D.**, Detroit, are the authors of an article entitled "High Kilovoltage Spot Compression Studies: New Approach to Colonic Polyp Detection," published in *Medical Radiology and Photography,* Volume 34, No. 2, 1958.

J. H. Ahronheim, M.D., Jackson, is the author of an article entitled "Medicine and Religion," presented before the Jackson County Medical Society, February 19, 1957, and published in the *Mississippi Valley Medical Journal,* September, 1958.

* * *

The American Congress of Physical Medicine and Rehabilitation will hold its thirty-seventh annual scientific and clinical session August 30 to September 4, 1959, inclusive, at the Hotel Leamington, Minneapolis.

Scientific and clinical sessions will be given August 31, September 1, 2, 3 and 4. All sessions will be open to members of the medical profession in good standing with the American Medical Association and/or state or county medical association.

Full information may be obtained by writing to the Executive Secretary, Dorothea C. Augustin, American Congress of Physical Medicine and Rehabilitation, 30 North Michigan Avenue, Chicago 2, Illinois.

* * *

Bernard M. Baruch Essay Award is being offered to stimulate interest in the field of physical medicine and rehabilitation by the American Congress of Physical Medicine and Rehabilitation. A prize for an essay on any subject relating to physical medicine and rehabilita-

(Continued on Page 1612)

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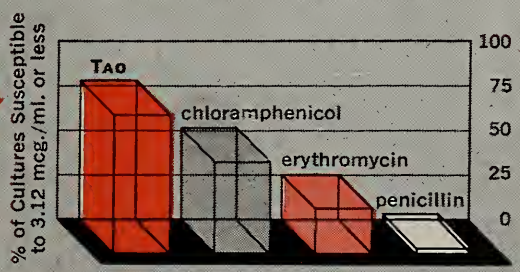
effective . . .

CLINICAL RESULTS	adults	children	all Staph infections
Cured	172 (80%)	148 (89%)	71 (88%)
Improved	28 (13%)	8 (5%)	7 (9%)
Failure	17 (7%)	11 (6%)	3 (3%)

Types of infecting organisms: The majority of identified etiologic microorganisms were Staph. aureus and Staph. albus. Tao has its greatest usefulness against organisms such as: staphylococci (including strains resistant to other antibiotics), streptococci (beta-hemolytic strains, alpha-hemolytic strains and enterococci), pneumococci, gonococci, Hemophilus influenzae.

even against resistant staph[1,2] . . .

Per cent of "antibiotic-resistant" epidemic staphylococci cultures susceptible to Tao, erythromycin, penicillin and chloramphenicol.[1]



well tolerated . . .

REACTIONS:

(a) adults	(b) children
Total—9.2% (20 out of 217)	Total—0.6% (1 out of 167)
Skin rash—1.4% (3 out of 217)	Skin rash—none
Gastrointestinal—7.8% (17 out of 217)	Gastrointestinal—0.6% (1 out of 167)

There was complete freedom from adverse reactions in 94.5% of all patients. Side effects in the other 5.5% were usually mild and seldom required discontinuance of therapy.

plus . . . stability in gastric acid • rapid, high and sustained blood levels • high urinary concentrations • outstanding palatability in a liquid preparation

Dosage and Administration: Dosage varies according to the severity of the infection. For adults, the average dose is 250 mg. q.i.d.; to 500 mg. q.i.d. in more severe infections. For children 8 months to 8 years of age, a daily dose of approximately 30 mg./Kg. body weight in divided doses has been found effective. Since Tao is therapeutically stable in gastric acid, it may be administered at any time, without regard to meals.

Supplied: Tao Capsules—250 mg. and 125 mg.; bottles of 60. Tao for Oral Suspension—1.5 Gm.; 125 mg. per teaspoonful (5 cc.) when reconstituted; unusually palatable cherry flavor; 2 oz. bottle.

References: 1. English, A. R., and Fink, F. C.: Antibiotics & Chemother. (Aug.) 1958. 2. English, A. R., and McBride, T. J.: Antibiotics & Chemother. (Aug.) 1958. 3. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy (Aug.) 1958. 4. Celmer, W. D., et al.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 476.

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(Continued from Page 1610)

tion will be awarded annually. The contest, while open to anyone, is primarily directed to interns, residents, graduate students in the pre-clinical sciences and graduate students in physical medicine and rehabilitation. Reprints covering the rules and regulations of these two awards are available.

WALTER J. ZEITER, M.D., Executive Director
American Congress of Physical Medicine and Rehabilitation

* * *

The MSMS House of Delegates, in September 1957, authorized a committee of the Council to select a site and make arrangements for a new headquarters office building to house the Michigan State Medical Society. Many sites were studied over many months and finally a place was selected on the northwest corner off M78 as it goes through Lansing and Abbott Road. The site is something over three acres, has a slight elevation in it, a few trees, and a very commanding area. An architect was selected and the first model of the structure shown to the Council meeting in July. The scale model of the proposed building and the site was presented to the House of Delegates and any who wished to see it at the meeting in September and October, 1958, at Detroit. This model was in the grand ballroom for all to see. The plan was selected and accepted and details are being drawn up to be put out for bids at the first opportune time after considering labor, materials and construction business so as to get the most favorable conditions. For a couple of years the Society has been setting aside a certain amount of each member's dues in the nature of a special assessment to accumulate a building fund. This plan will continue for two or three more years and even longer, if necessary.

The present cost is more than anticipated when the project was first started. The building will have offices for the secretarial, administrative and public relations staffs, stenographic pool, storage spaces and a board room sufficiently large to accommodate many committee meetings, including the Council; also a president's room which can be used as a conference room, and an editor's room which can also double as a conference room. It is hoped to have this structure well toward completion in 1959.

* * *

The final business of the MSMS House of Delegates was the election of officers in the wee small hours of Wednesday morning, October 1, 1958, the clock having been stopped at midnight. Wm. L. LeFevre, M.D., Muskegon, Councillor of the Eleventh District, B. T. Montgomery, M.D., Sault Ste. Marie, Councillor of the Twelfth District, and T. P. Wickliffe, M.D., Calumet, Councillor of the Thirteenth District, were all re-elected to new terms.

W. B. Harm, M.D., Detroit, Councillor of the Seventeenth District, declined re-election and was succeeded by Warren W. Babcock, M.D., Detroit. J. F. Beer, M.D., of St. Clair, Councillor of the Seventh District, resigned for personal reasons and Charles W. White, M.D., of Port Huron was elected to succeed him.

(Continued on Page 1614)

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in all diarrheas

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(Continued from Page 1612)

Delegates to the American Medical Association.—W. D. Barrett, M.D., Detroit, and R. L. Novy, M.D., Detroit, incumbents, were re-elected. W. H. Huron, M.D., of Iron Mountain desired to retire and George W. Slagle, M.D., of Battle Creek was elected in his place. The order of preference was Novy, Barrett, Slagle.

Alternate Delegates to the American Medical Association.—John R. Rodger, M.D., declined re-election and George W. Slagle, M.D., was advanced to delegate. The election and the order of precedence were Luther R. Leeder, M.D., Detroit. Wm. Bromme, M.D., Detroit, and Ralph Shook, M.D., of Kalamazoo.

The President-elect was Milton A. Darling, M.D., of Detroit. The Speaker, Ken Johnston, M.D., of Lansing, and the Vice-speaker, J. J. Lightbody, M.D., of Detroit, were both re-elected.

* * *

Blue Shield Board Elections were held at the meeting of *members of the corporation,* Tuesday afternoon, September 30, 1958.

Board of Directors:

Three-Year Terms:

Mr. Waldo I. Stoddard
Max L. Lichter, M.D.
Edwin H. Fenton, M.D.
G. Thomas McKean, M.D.
George W. Slagle, M.D.
Carleton Fox, D.D.S.
Gilbert B. Saltonstall, M.D.
John M. Wellman, M.D.
B. M. Harris, M.D.

Two-Year Terms:

Mr. Robert A. Frye
William S. Carpenter, M.D.
W. H. Huron, M.D.

Michigan Hospital Association Representatives

Three-Year Terms:

Mr. Ronald Yaw
Mr. Franklin D. Carr

At the first Executive Board meeting of Michigan Medical Service on Wednesday, October 8, 1958, the following officers were elected:

President—L. Fernald Foster, M.D.
Vice-president—Donald W. Thorup, M.D.
Secretary—G. Thomas McKean, M.D.
Treasurer—Waldo I. Stoddard

* * *

The Bons Secours Hospital eleventh annual Clinic Day Program was held on September 24, 1958. The Annual Award of Merit was presented to Dr. Ira George Downer of Riverside Clinic, Detroit.

* * *

The Blue Cross Commission of the American Hospital Association and the **Blue Shield Medical Care Plans** held a session on enrollment and public relations at the Edgewater Beach Hotel, Chicago.

On the closing day, September 19, the annual awards were announced in various membership groupings. The gold trophy for Plans with more than 500,000 members

(Continued on Page 1616)



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JAMA, Mar. 28, 1953

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(Continued from Page 1614)

went to the Associated Hospital Service of Philadelphia. The gold trophy for 200,000 to 500,000 members went to the Hospital Service Plan of Lehigh Valley, Allentown, Pa. In Plans with under 200,000 members, the Blue Cross and Blue Shield Plans of Phoenix, Arizona, won first prize. Michigan Hospital Service was one of the other seventeen receiving honorable mention.

* * *

The National Foundation, formerly the National Foundation for Infantile Paralysis on September 23, announced the new virus research awards amounting to $1,643,233. Twenty-one grants were made for the "March of Dimes Virus Research"; $9,490 went to Institut Pasteur in Paris—the smallest grant. The University of Pittsburgh received the largest grant, $262,000. There were no grants for Michigan.

* * *

The Medical Science and School of Nursing Building in the Medical Center provides classrooms and laboratories for several departments of the Medical School and School of Nursing, Ann Arbor. It contains 279,871 square feet and was built at a cost of $8.5 million in state appropriations.

* * *

Marion S. DeWeese, M.D., associate professor of surgery at the U-M Medical Center, has recently returned from a two-month stay at the University of Antioquia in Colombia, South America, where he gave general surgical lectures to medical students and staff.

His visit was part of the Rockefeller Foundation's educational program in support of South American Medical Schools.

"Their teaching program is similar to ours," Dr. DeWeese said. "But I saw types of surgical diseases that we rarely, if at all, see here, and observed surgery under different conditions."

Others from the Medical Center have visited the University of Antioquia. Dr. Arthur C. Curtis of the Dermatology Department is there now. Previous lecturers include Dr. Robert Berry, surgery; Dr. William H. Murphy, Jr., bacteriology; Dr. Joseph Chandler, biological chemistry; and Drs. Robert Bolt, H. Marvin Pollard and Jere Bauer of internal medicine.

* * *

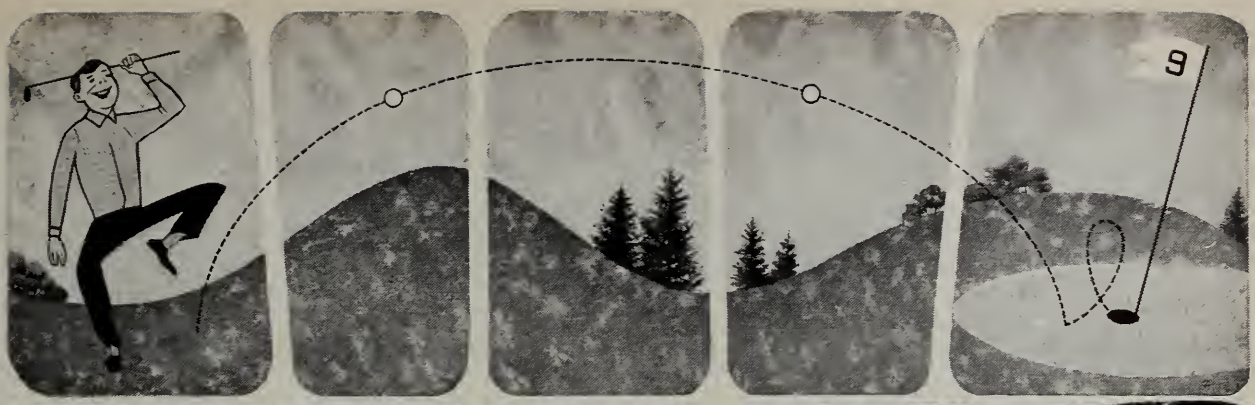
The American Academy of Physical Medicine and Rehabilitation is pleased to announce the election of the following officers for 1958-59:

Louis B. Newman, M.D., Chicago, President
Clarence W. Dail, M.D., San Gabriel, Calif., President-Elect
Ray Piaskoski, M.D., Wood, Wis., Vice-president
Harriet E. Gillette, M.D., Atlanta, Ga., Secretary
James W. Rae, Jr., M.D., Ann Arbor, Mich., Treasurer
Dorothea C. Augustin, Chicago, Executive Secretary

* * *

Dr. Christopher Parnall, former director of University Hospital, received an honorary award, and **Dr. Hsi-Yen Liu,** for the second time, won the senior award pre-

(Continued on Page 1618)



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(Continued from Page 1616)

sented at the annual University of Michgan Medical Honors Convocation, Sept. 22, 1958.

The awards were given in Rackham Auditorium by Dr. Albert C. Furstenberg, dean of the Medical School. They were preceded by an address by President Harlan Hatcher and an introductory note by Regent Charles S. Kennedy.

Dr. Parnall, director of University Hospital from 1918 to 1924, was honored for his vision in laying the grounds for the Medical Center and for his pioneering concepts in hospital administration. He received his undergraduate and M.D. from the U-M.

The presentation of the senior award to Dr. Lieu for the second successive year represents the first time in the history of the award that the same person has received it twice.

* * *

Guy Nunn conducts a so-called "Wake-up" broadcast representing UAW-CIO over CKLW between 6 and 7 in the morning. On Tuesday morning, September 30, he conducted a question and answer period with a woman's voice "Pat" asking questions and he answered.

He stated that ten or fifteen years ago, there was a differential of three years between the expected life of men and women in the United States. Women lived longer because they secured reasonable exercise in their daily work. They do not expose themselves to risky occupations or much inclement weather and in spite of the fact that they have to pay, they do consult the doctors from two to three times as much as men. At the present time, their life expectancy is seventy-three years while that of men is sixty-seven, in the United States. A differential now of six years, which, unless fundamental conditions are changed in another ten or fifteen years, might double in that time. The expectant age of women in the United States is the longest in the world. Men are not so fortunate; they take risks women do not; their work is more hazardous, and they do not go to doctors except for major things.

Pat asked, *Is there a reason for this difference?* The answer was *"Yes, while women are the longest-lived in America, men rank way down the line.* In several countries, life expectancy is longer for both men and women and Nunn enumerated several countries—England. Denmark, and others. The reason is very simple. There is national government health insurance. so that the men do not have to spend any money to consult their doctors; since there is no hesitancy, health is better and life longer.

* * *

"It is known that radiation can be dangerous but *fire* can be dangerous also. It is a matter of control. It is a fact that for centuries mankind has lived with an amount of radiation some thirty times greater than the fallout to this date from nuclear tests. It is also

(Continued on Page 1620)



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excellent for lesions of head and hands
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1. Welsh, A. L., and Ede, M.: J.A.M.A. *166*:158, 1958.
2. Bleiberg, J.: J.M. Soc. New Jersey *53*:37, 1956.
3. Abrams, B. P., and Shaw, C.: Clin. Med. *3*:839, 1956.
4. Bleiberg, J.: Am. Practitioner *8*:1404, 1957.
5. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.

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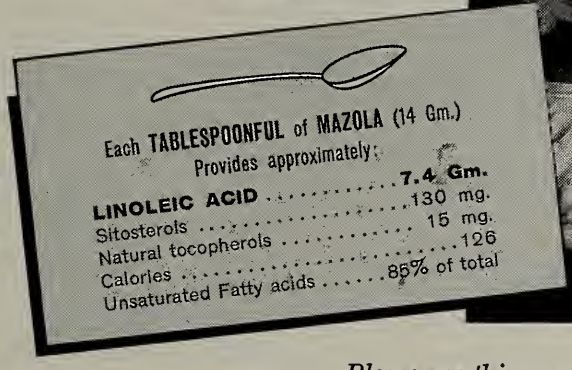
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(Continued from Page 1618)

a fact that modern man has received a great deal more radiation over his entire body from x-ray and fluoroscopic examination than from nuclear fallout.

In the medical profession it is known that radiation is an effective treatment for certain diseases and a necessary accompaniment of important diagnostic procedures. It cannot be discontinued nor should it be indicted indiscriminately. It is necessary to evaluate potential *dangers* against possible benefits."—Louis M. Orr, M.D., President A.M.A. at *World Medical Association.*

* * *

The Eighth Annual Symposium on Blood will be held at Wayne State University, Detroit, on January 16 and 17, 1959. The presentation of papers is scheduled to begin at 9 a.m., Friday. Facilities for a group dinner and social get-together are being reserved for Friday evening. Saturday, the scientific session will be from 9 a.m. until 12 noon. The schedule provides ample time for the audience to discuss contributions of the invited speakers. Arrangements have been made to publish abstracts of the papers in *Thrombosis et Diathesis Haemorrhagica.*

This year, the Symposium moves from the downtown medical center to the McGregor Memorial Conference Center, located on the main campus (Second Avenue at Ferry). This building is a creation of architect Minoru Yamasaki and represents a new departure from both the traditional and the modern in University architecture. The building gives the impression of two temples connected by a glass hall, and the play of light and shadows endows it with warmth, beauty and dignity. In this setting the organizing committtee hopes to attain a new high level mark in science living appropriate to the achievements and contributions of our colleagues.

Everyone interested is cordially invited to attend.—Walter H. Seegers, *Chairman;* Elwood A. Sharp, and J. Frederic Johnson.

* * *

Wayne State University College of Medicine reports the largest freshman enrollment in its eighty-year history—125 men and women began classes September 15, 1958.

Legislative approval followed by consent of the University's Board of Governors to spend the money for the fifty-student increase came last spring.

This action followed two years of concentrated effort by medical, health and community groups to train more doctors in the wake of a serious shortage.

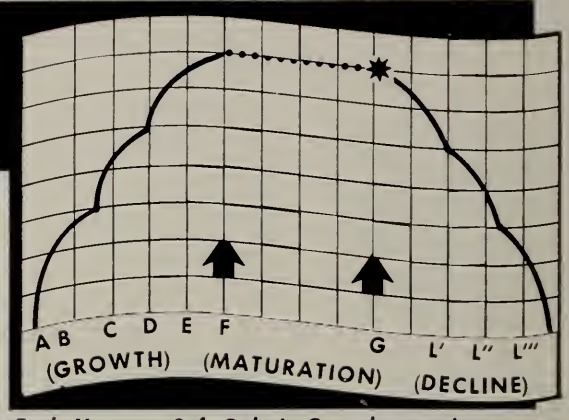
Prior to 1950, Wayne College of Medicine enrolled between sixty-five and sixty-eight freshmen. Since 1951 the enrollment has been seventy-five freshmen.

Effects of this increase will not be felt until this group graduates in 1962.

(Continued on Page 1622)

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Ferrous Sulfate	50 mg.	Pyridoxine Hcl.	0.3 mg.
Rutin	10 mg.	Niacinamide	20 mg.
Ascorbic Acid	30 mg.	Manganese	1 mg.
B-12	1 mcg.	Magnesium	5 mg.
Molybdenum	0.5 mg.	Iodine	0.15 mg.
Cobalt	0.1 mg.	Potassium	2 mg.
Copper	0.2 mg.	Zinc	1 mg.
Vitamin A	5,000 I.U.	Choline Bitartrate	40 mg.
Vitamin D	400 I.U.	Methionine	20 mg.
Vitomin E	1 I.U.	Inositol	20 mg.
Cal. Pontothenote	3 mg.		

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*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

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(Continued from Page 1620)

The following officers have been elected for the 1958-1959 year from the Houghton-Barage-Keweenaw County Medical Society:

President, F. E. Kolb, M.D., Calumet, Michigan
President-elect, H. J. Winkler, M.D., L'Anse, Michigan
Secretary-Treasurer, M. S. Williams, M.D., Houghton, Michigan
Delegate to MSMS, P. S. Sloan, M.D., Houghton, Michigan
Alternate Delegate, L. C. Aldrich, M.D., Houghton, Michigan
Member Board of Ethics, F. S. Hosking, M.D., Laurium, Michigan
Judicial Councilman, A. B. Aldrich, M.D., Hancock, Michigan

* * *

The Michigan Association of Blood Banks held its fourth annual meeting on October 18, 1958 in the auditorium of David Whitney House, headquarters of the Wayne County Medical Society. Leo W. Walker, M.D., Lansing, President of the Michigan Association of Blood Banks, gave the welcome address. The program chairman was Frank R. Ellis, M.D., Detroit.

* * *

Changing trends in the public health movement and their impact on the operating programs of public health agencies and teaching programs in public health schools will be studied by The University of Michigan School of Public Health.

The research will be financed by a five-year grant of $167,620 from the W. K. Kellogg Foundation, Battle Creek. The study will be undertaken by the newly organized research and teaching service of the U-M School of Public Health, which will be under the direction of Hugh B. Robins, M.D.

Dr. Robins comes to the new position from his post as health director of Calhoun County, including the city of Battle Creek. His appointment to the position of professor of public health practice was effective Oct. 1.

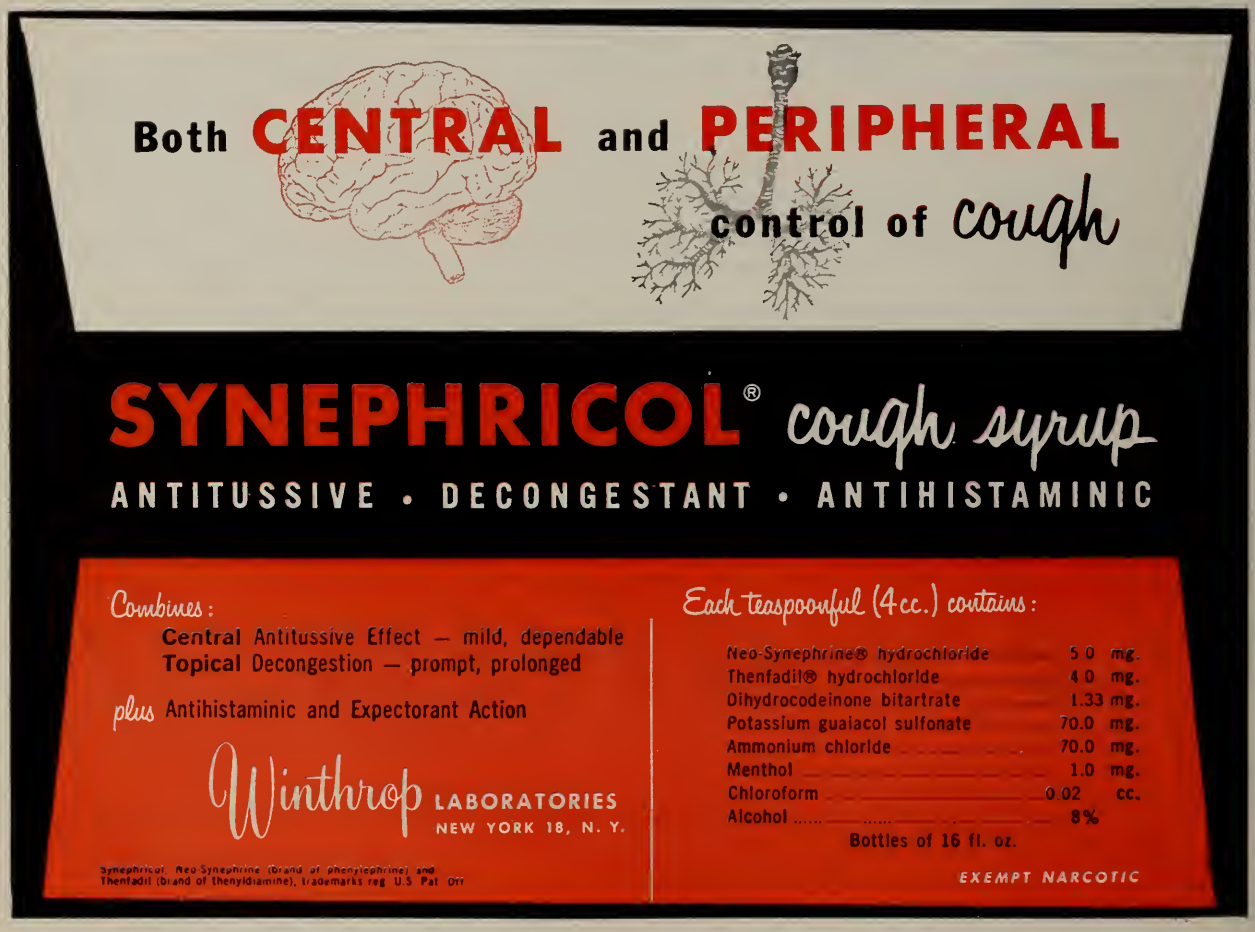
Dr. Robins has been a non-resident lecturer in the School of Public Health and has participated annually in the basic course in public health practice. He has held the Calhoun County position for approximately twenty years. Prior to that, he was health commissioner of Charleston, West Virginia.

Commenting on the studies, Dean Henry F. Vaughan made the following statement:

"Unquestionably the total vista of the public health program is undergoing a remarkable change. The programs for the control of the common communicable diseases have undoubtedly passed their zenith, especially now that we have the Salk vaccine for infantile paralysis and new vaccines are becoming available for the common respiratory diseases.

"As a consequence of these conservations in the earlier years of life, increased attention is being given to the chronic diseases, cancer, heart disease, diabetes,

(Continued on Page 1624)



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(Continued from Page 1622)

arthritis and mental health. All of these changes in emphasis require a review of the pattern under which community organizations, both official and voluntary, should approach the new look of health conservation and promotion.

"The characteristics of the health department and its services will be remolded to accommodate the new problems. This will influence the pattern for the training of physicians, nurses, dentists, engineers, and men of sanitary science. There is need of research and experimentation. There is need of greater team work between the staff of the official health department, the voluntary agencies and the free enterprise as represented by industry and the private practice of medicine and dentistry. It will be studies of this kind which will be undertaken under the direction of Dr. Robins."

Dr. Robins was born in Claremont, West Virginia, on Nov. 3, 1899, and is a 1924 graduate of University of Cincinnati Medical School. He assumed his Calhoun County position in 1937, living in Marshall. The city and county health commissionerships were combined in 1944 and since 1948 Dr. Robins has lived in Battle Creek.

His resignation from the Calhoun County position will be effective November 1. During October, he will be "on loan" to fulfill the position with the U-M School of Public Health.

* * *

While the Salk vaccine has saved thousands from crippling in the past three years, thousands of others have escaped paying the toll of paralytic polio only through sheer luck, according to the 1957 Annual Report issued by the National Foundation. The statistical analysis heavily underscores the danger of neglecting these inoculations.

The report shows that from an annual average of 38,727 cases of paralytic polio in the five years preceding the Salk vaccine, there was a decline to 28,985 cases in 1955, to 15,140 in 1956 and to 5,894 in 1957.

At the end of 1957 there were two out of every five persons under forty years of age, the susceptible age group, who still had received no vaccine.

* * *



The Tuberculosis and Health Society of Wayne County has established a tuberculosis research fund with Christmas Seal donations and memorial gifts to further medical research in the state, Richard L. Lea, executive secretary, announced.

Projects eligible to receive grants will be designed to contribute better understanding of the behavior, prevention, and control of tuberculosis. Research projects must be conducted in connection with a qualified Michigan school or institution.

Arthur Vorwald, M.D., Professor of industrial medicine at Wayne State University's College of Medicine, is

(Continued on Page 1626)

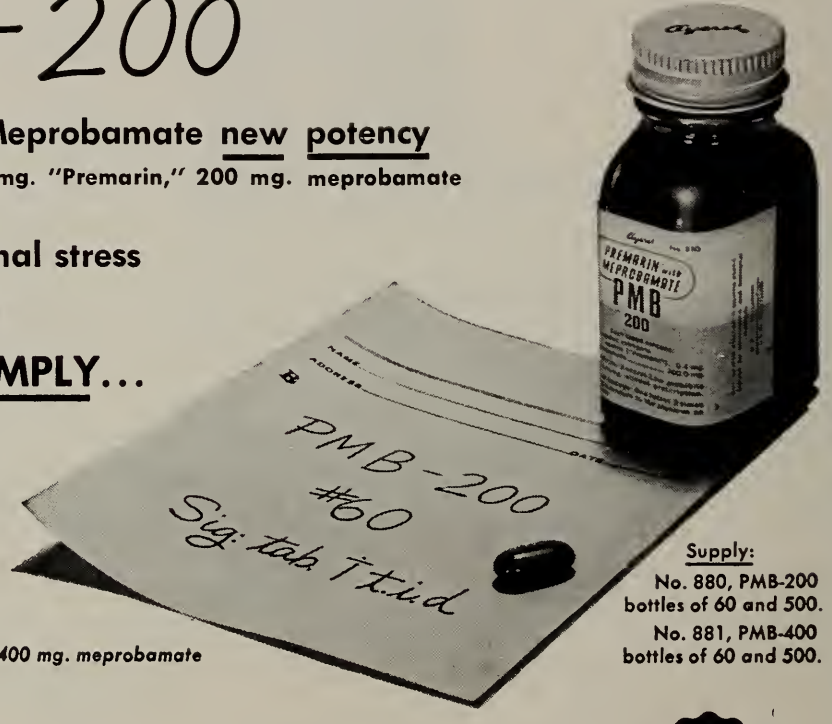
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Vitamin D
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Oyster Shell Calcium
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Vitamins A-D-C-E
Natural Trace Minerals
Ferrous Sulfate
DOSAGE: 1 tab. t.i.d.

OS-*feo*-CAL

Therapeutic Iron
Oyster Shell Calcium
Vitamin D
Natural Trace Minerals
DOSAGE: 1 tab. t.i.d.

OS-*feo*-VIM

Therapeutic Iron
Oyster Shell Calcium
Vitamins A-D-C-B6 and K
Natural Trace Minerals
DOSAGE: 1 tab. daily.

note low dosages!

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*HARDY, J. A.: *Obstet. & Gynec.* (Nov., 1956)

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- eliminates need for injections in certain cases, lengthens interval between injections in others
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SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

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(Continued from Page 1624)

chairman of the medical research committee, which will make the grants. Also serving on the committee are G. Thomas McKean, M.D.; Walter Nungester, M.D., chairman of the Department of Bacteriology, University of Michigan College of Medicine; Lester K. Kirk, president of the Standard Accident Insurance Company; and Paul T. Salcow, M.D., medical director of Herman Kiefer Hospital.

The fund is made up of gifts given to the TB and Health Society in memory of deceased tuberculosis patients or to honor a friend or relative who has recovered from the disease. Some contributions come from individuals and business firms who make charity donations instead of sending Christmas gifts or cards. Part of the fund is Christmas Seal money from the annual sale in November.

"Although tuberculosis is one of man's oldest disease enemies, its baffling nature has foiled researchers in many efforts. Knowledge of tubercule bacilli is increasing, and treatment has improved rapidly in the past eight years. But there still is no vaccine practical for mass use, and much needs to be known about certain germ strains that become immune to modern drug therapy." reports Lea.—MICHIGAN TUBERCULOSIS ASSOCIATION.

* * *

The American Board of Obstetrics and Gynecology, Part I Examinations are to be held in various parts of the United States and Canada, on Friday, January 16, 1959, at 2:00 p.m.

Candidates notified of their eligibility to participate in Part I must submit their case abstracts within thirty days of notification of eligibility. No candidate may take the written examination unless the case abstracts have been received in the office of the Secretary.

Current bulletins outlining present requirements may be obtained by writing to the Secretary's office: Robert L. Faulkner, M.D., American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

C. G. Menzies, M.D., Director of Michigan State University's Health Service since 1953, is returning to practice in the field of ear, nose and throat medicine, within the University's Olin Memorial Hospital.

Filling the new position of hospital manager is Mr. Richard Holman, and serving as Medical Director is James S. Feurig, M.D.

* * *

The House of Delegates of the American Hospital Association, at its meeting in Chicago in August, adopted a statement of policy with respect to meeting hospital needs of the aged, as follows:

1. The American Hospital Association is convinced that retired aged persons face a pressing problem in financing their hospital care.

2. It believes that federal legislation will be necessary to solve the problem satisfactorily. It has, however,

(Continued on Page 1628)

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The Wisconsin Alumni Research Foundation has licensed the production of such a complete protein in the form of V^{10} Protein Concentrate. V^{10} Protein is composed entirely of grains, yet results of laboratory tests by the Foundation show that it has a protein efficiency value equal to casein, the high quality protein standard commonly used in protein evaluation work.*



Now V^{10} Protein is available in Michigan in V^{10} Protein Bread and V^{10} Protein Graham Crackers. These delicious foods add variety to the daily dietary requirement for protein. V^{10} Protein Bread and Graham Crackers will greatly aid in the planning of meals and will help promote health and vigor for all age groups.

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*A complete report on these animal feeding studies is available on request. Address WISCONSIN ALUMNI RESEARCH FOUNDATION, P. O. Box 2217, Madison 1, Wis.

(Continued from Page 1626)

serious misgivings with respect to the use of compulsory health insurance for financing hospital care even for the retired aged.

3. It believes that all possible solutions must be vigorously explored, including methods by which the dangers inherent in the Social Security approach can be avoided.

4. It believes that every realistic effort should be made to meet the hospital needs of the retired aged principally through mechanisms utilizing existing systems of voluntary prepayment. However, it is conceivable that the use of Social Security to provide the mechanisms to assist in the solution of the problem of financing these needs may be necessary ultimately.

5. It believes that any legislation developed to provide for government participation to meet the hospital needs of the retired aged should be so devised as to strengthen the voluntary prepayment systems, and should conform to the following principles:

(a) Legislation designed to provide for the hospital needs of the retired aged should provide essential hospital services and should exclude custodial care provided for nonmedical reasons.

(b) Government participation should be restricted to persons over sixty-five who are not regularly and substantially employed. The voluntary prepayment system provides a satisfactory mechanism for the coverage of other persons, regardless of age.

(c) Any program in which the federal government participates to meet the hospital needs of the nonindigent aged should emphasize individual responsibility and make the application of a means test unnecessary for obtaining benefits.

(d) Such a program should be based on the service benefit principle and should provide benefits sufficiently comprehensive to remove the major economic barriers to hospital care for the retired aged.

(e) Such a program should make benefits available through nonprofit prepayment plans.

(f) Hospitals should be paid fully for the cost of care rendered.

(g) Such a program should not provide services in facilities operated by the federal government.

(h) Such a program should provide reasonable criteria to determine the eligibility of hospitals to participate, but the federal government should be precluded from interfering in the administration and operation of hospitals providing the services.

(i) Such a program should maintain the free choice of doctor and hospital by the recipient.

(j) Such a program should permit and encourage continuous adaptation to new knowledge in the provision of services.

* * *

The A.M.A. and the Sears-Roebuck Foundation have co-operated in the preparation of a guidebook for the young physician, entitled "The Business Side of Medical Practice." The booklet offers help to physicians in making their own decisions on the business side of their prac-

tices and to put them on the track of other sources of information. Copies of the booklet may be secured from the American Medical Association, 535 N. Dearborn St., Chicago 10, Illinois.

* * *

C. J. Stringer, M.D., Lansing, was elected 1958-59 President of the Michigan Tuberculosis Association at its recent 51st Annual Meeting.

Congratulations, Dr. Stringer!

* * *

The Health Insurance Council reports the number of people in Michigan covered by voluntary health insurance has reached a new high! More than 6,338,000 persons in this state are now protected by some form of insurance designed to help pay hospital and doctor bills.

The number of people covered by some form of health insurance in the nation is estimated at 123,000,000, or 72 per cent of the total U. S. civilian population.

* * *

Mr. Kurt Mikat, medical student at the University of Michigan, has been awarded a $500 scholarship for research and clinical training, under the direction of John M. Sheldon, M.D., Professor of Internal Medicine, Head of the Dept. of Allergy and Chairman of the Department of Postgraduate Medicine, University of Michigan; The Allergy Foundation of America made the award, one of twenty-two in medical schools throughout the United States and Canada.

Living costs have gone up an average 105 per cent in the twenty years since 1938. On an average, you must pay $2.05 today for something you could have bought for a dollar back in 1938. Hospital costs have risen 33 per cent.

* * *

Ubiquitous Hosts.—The following Wayne County doctors of medicine placed themselves at the disposal of the guest essayists at the 1958 Annual Session of the Michigan State Medical Society in Detroit: C. P. Anderson, M.D., C. D. Benson, M.D., I. C. Berlien, M.D., D. T. Burton, M.D., D. A. Cameron, M.D., W. B. Cooksey, M.D., J. E. Croushore, M.D., P. L. Cusick, M.D., Stella Delani, M.D., M. S. Dennis, M.D., P. R. Dumke, M.D., W. S. Haubrich, M.D., C. G. Jennings, M.D., Benjamin Juliar, M.D., W. F. Kujawski, M.D., W. R. Moore, M.D., H. V. Morley, M.D., H. M. Nelson, M.D., Alice Palmer, M.D., T. A. Petty, M.D., A. H. Price, M.D., Saul Rosenzweig, M.D., W. J. Scott, M.D., N. M. Taylor, M.D., and E. A. Wishropp, M.D.

Sincere thanks and appreciation are due these generous hosts for showing the meaning of Michigan hospitality to the eminent speakers at the MSMS convention.

* * *

Joe V. Meigs, M.D., Boston, Massachusetts, is scheduled to be the Michigan Cancer Co-ordinating Committee Lecturer on Wednesday, March 11, 1959, at the Michigan Clinical Institute scheduled for the Sheraton-Cadillac Hotel, Detroit, Tuesday noon through Friday noon, March 10-13.



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Swiss-born Theophrastus Bombastus von Hohenheim, who called himself Paracelsus and was a controversial figure from 1493 to 1541, is the subject of the eleventh oil painting in the Parke, Davis & Company's "History of Medicine" series. The painting is one of forty by the artist Robert Thom of Birmingham, Michigan, depicting the evolution of medicine.

* * *

The Michigan Board of Nursing announces the appointment of Mrs. Jean Webster, R.N., Consultant, and Mr. Hugh A. Clarkin, Investigator. Mrs. Webster will assist with registration and licensure of nurses, the planning of conferences and workshops and also interpret legal requirements in nursing.

* * *

The Medical Science and School of Nursing Building is being used for the first time this autumn on the University of Michigan campus. The building provides classrooms and laboratories for several departments of the Medical School and School of Nursing.

* * *

Maj. Gen. Paul I. Robinson, M.C. has been appointed Co-ordinator of Medical Relations for the Metropolitan Life Insurance Company. Dr. Robinson is best known for his organization and administration of the Office for Dependents' Medical Care (Medicare) in the Office of the Surgeon General of the U. S. Army.

Congratulations and best wishes, Doctor Robinson!

* * *

Laurence F. Segar, M.D., Detroit, has been reappointed Governor for the State of Michigan to the Board of State Governors of the American Diabetes Association.

* * *

The Sixth Bahamas Medical Conference is scheduled for November 28 through December 18; the First Bahamas Surgical Conference will be from December 29 to January 17; and the Serendipity Session is January 18 until January 31. All are scheduled for the British Colonial Hotel in Nassau where reduced rates are available, provided reservations are made through the Bahamas Conferences, P.O. Box 4037, Fort Lauderdale, Florida.

Programs may be obtained from B. L. Frank, M.D., Organizing Physician, 23 East 79th Street, New York 21, N. Y.

* * *

The Sister Elizabeth Kenny Foundation announces continuation of its program of post doctoral scholarships to promote work in the field of neuromuscular diseases. These scholarships are designed for scientists at or near the end of their fellowship training in either basic or clinical fields concerned with the problem of the neuromuscular diseases.

For details write E. J. Huenekens, M.D., Medical Director, Sister Elizabeth Kenny Foundation, Inc., 2400 Foshay Tower, Minneapolis 2, Minnesota.

* * *

The Veterans Administration warns that physicians and hospital administrators should not assume that Veterans Administration can pay bills for care of Spanish-American War Veterans in non-VA hospitals.

If hospitalization by a Spanish-American War veteran is requested, the nearest VA office should be contacted.

Christopher Parnall, M.D., former Director of the University of Michigan Hospital, recently was presented an award by Albert C. Furstenberg, M.D., Dean of the Medical School, for his vision in laying the grounds for the Medical Center and for his pioneering concepts in Hospital administration.

* * *

Mrs. E. I. Carr of Lansing was inducted as President of the Woman's Auxiliary to the International College of Surgeons at ceremonies in Chicago on September 19.

* * *

The National Institute of Mental Health announces two new programs for general practitioners who wish to receive postgraduate training in psychiatry or who may wish to undertake residency training in order to become psychiatrists.

Inquiries about this grant support program should be sent to Seymour D. Vestermark, M.D., Chief, Training Branch, National Institute of Mental Health, National Institutes of Health, Bethesda 14, Maryland.

* * *

The U. S. Public Health Service reported the number of people in the United States without ready access to general hospitals has dropped from 10 million to 2.8 million since 1948.

* * *

The Frank E. Bunts Educational Institute affiliated with The Cleveland Clinic Foundation announces a symposium on Medical Technology co-sponsored by the Cleveland Society of Medical Technologists. The symposium will be held at the Frank E. Bunts Educational Institute, 2020 E. 93rd Street, Cleveland 6, Ohio, November 20-21.

* * *

The annual clinical meeting of the Frederick A. Coller Surgical Society was held at St. Joseph Mercy Hospital in Ann Arbor on October 3 and 4. The Society consists of 183 surgeons who trained under Dr. Coller at the University of Michigan.

* * *

The first Athletic Injury Clinic was held at the University of Michigan Medical Center on October 11. Speakers included E. A. Kahn, M.D., R. W. Bailey, M.D., and E. F. Wolfman, M.D., from the Medical Center's Department of Surgery. R. B. Nelson, M.D., Ann Arbor, moderated the morning program.

The purpose of the conference is to keep high school coaches up to date on the latest medical developments in preventing, treating and minimizing the effects of athletic injuries.

* * *

H. H. Gay, M.D., of Midland has been appointed by Governor G. Mennen Williams to the Michigan State Board of Alcoholism.

Congratulations Dr. Gay.

* * *

The Michigan Cancer Co-ordinating Committee sponsored seven speakers on various phases of cancer control at the October-November district training schools of the Michigan Division, American Cancer Society. Speakers and cities where these lay education confer-

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ences were held were: Wm. B. Kirtland, M.D. of Detroit, in Port Huron on September 30; Joseph A. Preston, M.D. of Jackson, in Battle Creek on October 2; Harold L. Fachnie, M.D. of Detroit, in Saginaw on October 7; H. B. Latourette, M.D. of Ann Arbor, in Grass Lake on October 16; Dale L. Kessler, M.D. of Grand Rapids, in Traverse City, on October 28; Walter A. Stryker, M.D. of Wyandotte, in East Tawas on October 29; Arthur H. Joistad, M.D. of Muskegon, in Holland on November 5.

* * *

Earl E. Weston, M.D., Detroit, was the subject of the following comment in "The Town Crier," the popular *Detroit Free Press* column edited by Mark Beltaire:

Dr. Earl Weston, a ham radio operator, has added another hobby. He takes pictures of certain participants on TV shows with a Polaroid camera, then sends them the shots. He buys the fastest film available and opens the camera to its widest stop, then shoots from three feet in front of his TV set. Last week he obtained 10 shots of local doctors taking part in the Michigan State Medical Society Meeting, came up with some exceptional results.

Dr. Weston started photographing his TV screen some time ago to prove to skeptical friends that his set was capable of pulling in out-of-town stations. So far he has pictured proof of receiving KDKA-TV, Pittsburgh; WTVN-TV, Columbus; WSPD-TV, Toledo; WJW-TV and WEWS-TV in Cleveland; CFPL-TV, London, Ont.; WNEM-TV, Bay City; WJIM-TV, Lansing, and WICU-TV, Erie, Pa.

* * *

In the annual campaign for funds to support community projects in social welfare and assistance to the handicapped, the National Library of Medicine was the first organizational unit of the Public Health Service to exceed its quota and among the first to conclude the campaign ahead of schedule. In recognition of this achievement, a citation was presented to the employees of the Library by the Surgeon General of the Public Health Service.

MEDICAL TELEVISION SHOWS

Produced by Michigan Health Council

September 7	Muscular Dystrophy (Films—"The Other Half of the Team" and "Where the Green Grass Grows")
September 14	To Save a Life (Film—"To Save a Life")
September 21	Cerebral Palsy (Films—"What Is Cerebral Palsy" and "Frontiers of Science")
September 28	M.D. Placement (Film—"A Citizen Participates")

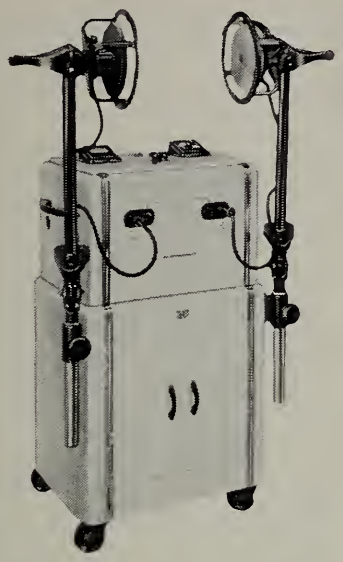
M.D. LOCATIONS

Through September 30, 1958

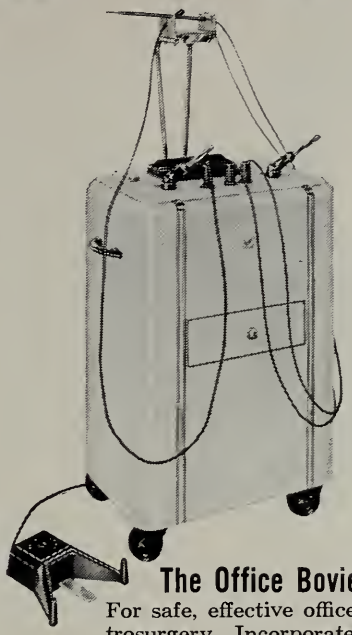
Placed by Michigan Health Council.—Roland L. Phillips, M.D., Owosso; Ralph A. Cram, M.D., Albion.

Assisted by Michigan Health Council.—Willard D Den Houter, M.D., Plymouth.

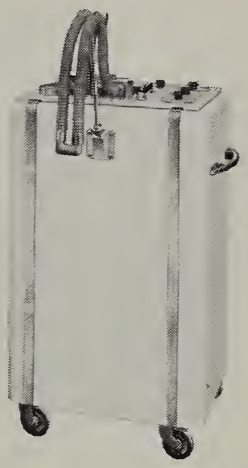
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Communication

Dear Dr. Beck:

About two weeks ago, our family visited the Beaumont Memorial at Mackinac Island. You have an excellent memorial to a man who had done so much for medicine. It isn't the usual junk exhibit that one sees so often in an historical museum and has no musty unkept odor. I liked very much the way the furniture and case reports were displayed. The whole exhibit is in excellent taste—to my way of thinking.

Perhaps you are amazed that a visitor would write about it—but—for many years I was employed as a reference librarian at the American Medical Association in Chicago. Now that we have been transferred to Columbus and I seem to be unemployable down here, I still retain my interest in medicine and its literature. Whenever we are on a holiday, I usually take in any medical exhibits that I run across.

Sincerely,
LILLIAN F. SMYTH
(Mrs. William J. Smyth)

Columbus, Ohio
August 31, 1958



THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

READINGS IN MEDICAL CARE. Edited by the Committee on Medical Care Teaching of the Association of Teachers of Preventive Medicine. Chapel Hill: The University of North Carolina Press, 1958. Price, $6.50.

A news item from the University of Michigan announced that one of the professors in the Department of Public Health, A. J. Axelrod, M.D., was one of the five authors of a new book about to be published by the University of North Carolina Press. That book has been received for review, and we have studied it searchingly. It contains articles which have been written by numerous professors.

The book is a very elaborate preparation dealing with "Problems in Medical Care," including the prospective student and how he should be trained and encouraged to have an altruistic and possibly missionary concept of life; a chapter on "The National Health Picture," which is largely references, and a chapter on "Adequacy of Medical Care," discussing quantitative and qualitative care. There is also a discussion of how charges have been made from time immemorial, the various charges, and mention of all sorts of methods of determining charges and costs. The nation's medical bill and the private bill are discussed extensively, as is also the physician's education and qualification, licensure, the rural doctor, and income and methods of payment. There is mention of the belief that relative values are improper as regards general practice and specialization.

"Hospitals and Their Organization" including the physician's relations in the hospital, "Co-ordination of Health and Medical Service," "Medical Group Practice," "Integrating Prevention and Cure," "Care of Long-Term Illness," "Rural Medical Care," "Public Medical Care," "Medical Care in Industry," are all touched upon.

A chapter on "Medical Care Insurance" is rather intriguing. It mentions voluntary medical care insurance, the organization of Blue Shield, California having the first state-wide plan, and the role of government in insurance. It goes back and quotes Oscar Ewing, Harry Truman, Ernest P. Boaz, and has a short item on President Eisenhower's proposal of several years ago to reinsure the insured—long since abandoned.

In the last chapter on "Principles and Proposals," the voluntary non-profit programs are mentioned inadequately as compared with the stress and emphasis on groups and controlled HIP plans.

CLINICAL ORTHOPAEDICS. By Anthony F. DePalma, Editor-in-Chief, with the assistance of the Associate Editors, the Board of Advisory Editors, the Board of Corresponding Editors. *Number Eleven,* Spring, 1958. Philadelphia and Montreal: J. B. Lippincott Company, 1958. Price, $7.50.

This volume, like its predecessors, devotes its primary discussion to a given subject, in this case that of geriatric orthopedics. This discussion is largely limited to surgery of the aged, particularly related to fractures and their by-products, and does not cover the nonoperative or office problems that this age group also presents. The presentation is well outlined and illustrated, with its appeal largely directed to the orthopedist and not the occasional practitioner of orthopedics.

The remainder of the volume, as in other issues, deals with a varied list of topics, many of them of great interest to any practitioner, such as a discussion of the low back syndrome.

This series should be collected as a whole, for in its entirety, it constitutes an excellent review of orthopedics in symposium form.

R.H.A.

CLINICAL OBSTETRICS AND GYNECOLOGY. Volume 1, Number 2. Toxemias of Pregnancy, edited by Louis M. Hellman, M.D. Fibromyomas of the Uterus, edited by Robert A. Kimbrough, M.D. New York: Paul B. Hoeber, Inc. Medical Book Department of Harper & Brothers, 1958.

This book is the second of a series on clinical obstetrics and gynecology. This consists of a symposium on "Fibromyomas of the Uterus and Toxemias of Pregnancy." The subject of fibromyomas of the uterus includes their relationship to sterility, pregnancy, and the urinary tract. The surgical treatment is very detailed and the photographs are excellent. However, this symposium is primarily of interest to the gynecological surgeon.

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*KARPOVICH, P. V. et al: Physiological and Kinesiological Methods for Testing Footgear, p. 74 et seq. QM Contract Report, Springfield (Mass.) College, June 29, 1957.

The section on toxemias is very well written. It begins with the chemical variations of the pregnant woman as compared to the non-pregnant individual. The uterine circulation, pathology of placenta and the endocrine aspects of toxemia are subjects of special interest to the clinician. The symposium concludes with a comprehensive subject, "Causes of Maternal Death in Toxemia."

Excellent references are included at the end of each chapter and a complete subject index is included for both volumes of this series.

J.R.P.

HEALTH BULLETIN FOR TEACHERS. Vol. xxvii No. 1, June, 1958. For distribution to Teachers. Published by Metropolitan Life Insurance Company, 1 Madison Ave., New York 10, N. Y.

The Metropolitan Life Insurance Company for years has been sending a bulletin to teachers an average of four times a year. This year the bulletin is devoted largely to the medical profession—its aims, traditions and accomplishments. This present number is a particularily well-written and balanced four pages of valuable and understandable information.

THE RELATION OF PSYCHIATRY TO PHARMACOLOGY. By Abraham Wikler, M.D., National Institute of Mental Health, Addiction Research Center, Department of Health, Education and Welfare, Public Health Service Hospital; Lexington, Kentucky. Published for the American Society For Pharmacology and Experimental Therapeutics. Baltimore: The Williams & Wilkins Company, 1957. Price, $4.00.

In recent years, there has been an amazing increase in the use of chemical agents in the investigation of and the treatment of functional behavioral disorders. The interest in these investigations has been wide spread and has involved a number of disciplines. Since communication and liaison between those disciplines most vitally interested, pharmacology and psychiatry, has not been the best, a review of the pertinent literature seemed in order.

This review is a survey of the publications in English, French, and German during the period from 1930 to 1955. The drugs considered are: insulin, carbon dioxide, barbiturates and other anesthetics, amphetamine and metamphetamine, pipradrol, chlorpromazine, reserpine, metrobamate, azacyclonol, d-lysergic acid diethylamide, and mesdaline.

The first section, "The Effects of Drugs on Human Behavior," includes chapters on: "The Production of Coma," "Psychoexploration," "Tranquilization," "Arousal and Elevation of Mood," and "The Production of 'Model' Psychosis." In the second and larger section, the material is arranged under the following titles: "Biochemical Aspects," "Biochemical Mechanisms of Drug Action," "Neurophysiological Aspects." and "Psychological Aspects."

The book is well arranged, adequately documented, and fulfills the purpose of the author.

F.O.M.

CLINICAL ORTHOPAEDICS. By Anthony DePalma, Editor-In-Chief, with the assistance of the Associate Editors, the Board of Advisory Editors, the Board of Corresponding Editors. *Number Ten*, Fall, 1957. Philadelphia and Montreal: J. B. Lippincott Company. 1957. Price, $7.50.

This volume's primary concern is with affections of growth centers, continuing this excellent series' characteristic of presenting a given subject in symposium form. Aimed at the orthopedist, it selects several, but by no means all, of the growth centers and discusses them from standpoints of physiological changes following trauma, developmental variations, et cetera.

The remaining three sections deal with the pathologic physiology of metabolic bone disorders, general orthopedics, and the usual final section containing scattered brief items of a general nature.

This volume, as its predecessors in the series, is a must for all those interested in orthopedics.

R.H.A.

MEMOIRS OF A GP. By Otis Marshall, M.D. New York, Washington, Chicago, Hollywood, Toronto: Vantage Press, 1958. Price, $3.50.

The title of this book is somewhat misleading in that it is really an autobiography, beginning with the author's earliest recollections, and advancing through childhood, schools and finally the practice of medicine. In the literal sense of the word, the author was a general

practitioner, but of his fifty years since graduation, only about half of the time was spent in the actual general practice of medicine. The remaining time was spent as industrial physician in the mines and a paper company, as an employe of the American Red Cross, and medical director of a home for the aged, as well as a year as a patient in a psychiatric hospital.

The book is very simply written, at times bordering on the primer type of grammar. It is liberally sprinkled with references to cases of diphtheria, tetanus, smallpox and other diseases, and injuries rarely seen in the present day, but there is very little to recommend it as informative or constructive reading.

C.W.R.

A DOCTOR SPEAKS HIS MIND. By Roger I. Lee, M.D. Boston and Toronto: Little Brown and Company. Price $3.00.

This little book of 120 pages is an interesting and humorous discourse of the personal opinions of a physician in regards to many items concerned with medicine. He is a champion of the general practitioner, against too much specialization, government intervention in medicine, patent medicines, statistics, and so forth. Other points touched on include vacations, publicity, the number of doctors, public health, Blue Cross, et cetera.

H.E.A.

THE CLOSED TREATMENT OF COMMON FRACTURES. By John Charnley, B.Sc., M.B., F.R.C.S., Orthopaedic Surgeon, Manchester Royal Infirmary; Orthopaedic Surgeon, The Park Hospital, Davyhulme; Orthopaedic Surgeon, Wrightington Hospital; Lecturer in Orthopaedics, Manchester University; Late Hunterian Professor, Royal College of Surgeons. Second Edition. Baltimore: The Williams and Wilkins Company, 1957. Price $10.00.

This edition, like the first, should not be mistaken for an elementary manual designed for beginners, but a well illustrated and written (in the English tradition) plea for the closed treatment of fractures.

In detail is described the many principles and steps necessary to effect a successful reduction of a given fracture, which specific steps are too often glossed over in many of our fracture texts.

This book is as valuable to the orthopaedist as to the occasional practitioner of trauma, but particularly to those whose practical experience has yet to match their theoretical knowledge.

R.H.A.

COLD INJURY, GROUND TYPE. Medical Department, United States Army. Prepared under the direction of Major General S. B. Hays, The Surgeon General, United States Army. Editor-in-Chief, Colonel John Boyd Coates, Jr., MC. Associate Editor, Elizabeth M. McFetridge, M.A., Office of the Surgeon General, Department of the Army, Washington, D. C. By Colonel Tom F. Whayne, MC, USA (Ret.), Professor of Preventive Medicine, School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, and Michael E. DeBakey, M.D., Professor of Surgery and Chairman of the Department, Baylor University College of Medicine, Houston, Texas. Formerly Colonel, MC, AUS. Price $6.25.

This book is undoubtedly the most comprehensive volume available on the subject. There are 105 excellent illustrations, fifty-two tables and thirty-two charts included. The subject is covered most thoroughly from historical epidemiology, pathogenesis and clinical descriptions to treatment and prevention. Descriptions of some of the battles in various theaters of World War II make for interesting reading. For those interested in this subject, this book is highly recommended.

H.E.A.

BOOKS RECEIVED

THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS. ANNUAL REPORT, 1957. The National Foundation For Infantile Paralysis. Franklin D. Roosevelt, Founder. 800 Second Avenue, New York 17, N. Y.

HEALTH INFORMATION FOUNDATION. ANNUAL REPORT, 1957-1958. 420 Lexington Ave., New York 17, N. Y.

A REPORT OF THE NATIONAL ASSOCIATION OF SCIENCE WRITERS, INC. Science, Who Gets What Science News; The News, Where They Get It; and The Public, What They Think About It. Text by Hillier Krieghbaum, Chairman, Surveys Committee, National Association of Science Writers, and Associate Professor of Journalism, New York University. National Survey conducted by The Survey Research Center, University of Michigan, for The National Association of Science Writers and New York University. New York University Press. 1958.



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THE JOURNAL
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W. J. Butler, M.D.



H. D. Fabing, M.D.



M. D. Utley, M.D.

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of the Michigan State Medical Society

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Office of Publication
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Following is a brief summary of the revised Medicare program which became effective October 1:

I. Dependents of military personnel are no longer entitled to receive the following care from civilian sources:
- Injuries or illnesses not requiring hospitalization.
- Pre-surgical and post-surgical tests before and after hospitalization.
- Neo-natal visits.
- Termination visit of a referring physician.
- Treatment of nervous and mental disorders.
- Elective surgery.

II. Dependents residing with service personnel face the following restriction on the use of civilian medical facilities.
- Dependents must contact a uniformed services authority to determine whether required care can be provided at a nearby military facility and must receive treatment there if it is available.
- Only when care is not available from services facilities may the dependent receive authorized civilian care for which the government will pay expenses.
- Only in an acute emergency requiring hospitalization may a dependent receive—without prior authorization—civilian medical care at government expense.

III. Dependents residing apart from service personnel may continue to receive authorized care from civilian sources, subject to exclusions in Part I.

—The *AMA News*, October 20, 1958.

REHABILITATION POTENTIAL IN COUNTY MEDICAL CARE FACILITIES

The University of Michigan's Department of Physical Medicine and Division of Gerontology, with the cooperation of other interested departments, are conducting a study of patients in selected county medical care facilities in Michigan. The purpose of the project is twofold: to assess the medical status, functional ability, psychosocial level and vocational potential of patients in such institutions, and to introduce a demonstration program through staff and community organization to help the patients reach their maximum level of physical, social and vocational independence. The program is now underway in the Jackson and Washtenaw County Hospitals. A third institution, the Kalamazoo County Hospital, is serving as a control. The demonstration program will be undertaken there after an objective evaluation of the results of the program in the other two hospitals has been made.

This article, in addition to describing the project, presents the results of the initial assessments of patients, including interesting findings from the medical, functional and psychosocial evaluations. Results of special laboratory tests (E.K.G., two-hour post-prandial blood sugar determination, chest x-ray, et cetera) are also presented, as well as some of the findings from neurological, communication, visual acuity, and dental examinations.

Practical problems faced by the Medical Directors of county hospitals in obtaining comprehensive evaluations of their patients are also discussed, along with possible solutions.

The typical American nowadays sees a physician almost twice as often as did his counterpart thirty years ago, according to Health Information Foundation—almost five visits per person a year today compared with only 2.6 in the 1928-31 period.

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1959		
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Jan. 28-30	Annual Meeting of the MSMS Council, Sheraton-Cadillac Hotel	Detroit
Jan. 30-31 Feb. 1	MSMS County Secretaries-Public Relations Seminar, Sheraton-Cadillac Hotel	Detroit
Feb. 11	Maternal Health Day	Flint
March 11-13	Michigan Clinical Institute, Sheraton-Cadillac Hotel	Detroit
Spring	MSMS Postgraduate Extramural Courses	Statewide

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references:
1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958
2. Editorial: *New England J. Med.* 258:48-49, 1958.

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Cancer Comment

(This column sponsored by the Michigan Cancer Co-ordinating Committee, Box 539, Lansing 3, Michigan)

CANCER QUACKERY

Quackery is probably one of the oldest professions known to mankind. It is as old as recorded history. The literature is crammed with stories and accounts of the strolling quack, the soothsayer, the rope dancers, the crystal gazers, and the modern medicine man. Today they peddle the same wares under the cloaks of quacks, charlatons, or the unorthodox. These practices are as widespread as human nature and today one asks the question, "Are they as common and do they present as much of a menace as they have in the past?" The answer is decidedly yes. Cancer control with all its emphasis, the improved outlook for both the early and the late case of cancer, with modern surgery and x-ray therapy—too late, insufficient, and improper treatment is deadly and unorthodox.

Throughout recorded history, until very recent times, cancer has been such a terrifying scourge that many people have refused even to talk about it. The picture is brighter today. We know that many types of cancer are curable if detected and treated early. It still remains a dreaded disease. We in the health professions are prone to forget that many people do not know this. The stigma of cancer frightens them, and many sensible people lose their ability to think clearly. They turn their backs on the family doctor, the reputable physician, reliable hospitals, and grasp at straws. They throw themselves on the mercies of the unorthodox practioner, the quack. These people are natural prey for cancer quacks. They are robbed of everything, the least important of which is probably their fortunes, their life savings.

According to Dr. L. H. Garland of San Francisco, who has done a great deal of work on this problem, the menace of the cancer quack is many fold, and he lists these undesirable sequelae:

The quack accepts patients with curable cancer and uses worthless drugs and remedies until the lesion becomes uncurable. This, in itself, tends to increase the public fear of cancer. On patients with late cancer, the quack often uses methods far less effective to control the disease and make life comfortable than are available by the use of orthodox methods. He exhausts the earnings and savings of those in limited circumstances without according any benefit.

The charlatan is found both inside and outside the profession, and sometimes this makes recognition difficult. He can usually be recognized by a few characteristics which seem to pinpoint him. His treatment is available only from himself and is usually secret. It bears his name or that of a highsounding research organization. It is usually advertised. He claims he is being persecuted by the Medical Trust. His cured patients, and greatest supporters, have only his word for it that they ever had cancer in the first place. He discourages or refuses consultations with reputable practioners, and his records are scanty or non-existent.

This is the picture of the unorthodox practioner, and it may cover a field which begins at the fringe of the reputable professional practitioner, who is misguided or uninformed on the cancer problem, who fails to recognize a lesion when he comes in contact with it, or treats it with drugs and remedies which are not adequate. At the other end of the list are the vultures preying on the unsuspecting public. A very complex problem to solve.

There are generally three types of quacks:

1. *The Dumb Quack.*—He knows not and knows not that he knows not. He or she is an uneducated ignorant person, knowing nothing at all about cancer, yet believing in a secret formula which he possesses. This type of quack is usually a small operator, and his influence and damage are relatively small.

2. *The Deluded Quack.*—This individual often has some education and background, may even be a licensed practioner in one of the healing professions, but his knowledge of cancer is scanty and his understanding of research methods is limited. His conviction of the value of his cancer treatment is based on faulty observations and reasoning. A number of these quacks are mentally unbalanced, but because of their position and education draw large audiences.

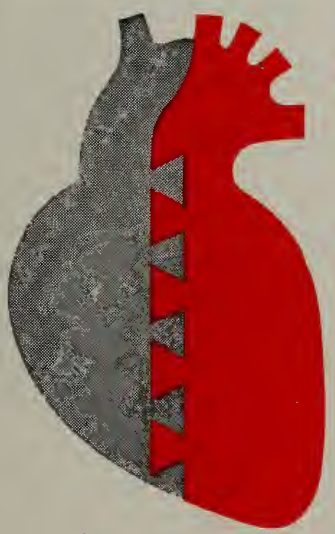
3. *The Dishonest Quack.*—This is the commonest type, he knows that he knows not. He is sly, shrewd and has no scruples. He is in the business for one reason only, to make a killing, which he does in both senses of the term.

The causes of cancer quackery are associated with many factors and, as far as the patient is concerned, they might include the following:

(Continued on Page 1652)

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1. *Friedlander, H. S.: The role of ataraxics in cardiology. Am. J. Card.* **1**:*395, March 1958.*
2. *Shapiro, S.: Observations on the use of meprobamate in cardiovascular disorders. Angiology* **8**:*504, Dec. 1957.*

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CANCER QUACKERY

(Continued from Page 1650)

Unawareness.—People are sometimes unaware of any difference between the cultist and the trained physician. It is impossible for them to distinguish between the unorthodox clinic and the licensed clinic.

Fear.—They fear the expense, many thinking that it is less expensive to visit such practitioners. They fear surgery and x-ray and consider cancer as uncurable.

Desperation.—People become desperate and believe their doctor has given up hope, or they have been told that nothing more can be done. They grab at any straw.

Of the above-mentioned reasons, desperation seems to be the most common single reason for these patients or their families seeking the services of the unorthodox. The honest intelligent family physician knows that a given case is inoperable and incurable but he hesitates to keep on giving treatments that he knows will accomplish little good; he does not wish to place any further drain on the family finances. This is probably where we make our first mistake—unknowingly, we convey to the patient and the family the feeling that there is little hope, that nothing more can be done.

Never say *"I can do no more for you."* The charlatan is in business to make money, and he does so by offering hope. He is courteous, suave, optimistic and easily understood by the layman, and he exudes confidence. The patient, having lost hope, is indifferent to the type of treatment used and whether or not it is fraudulent and administered by an unlicensed charlatan. The doctor has said, "I can do no more." The patient wants help.

There is a saying, "If you can't defeat them, join them." Copy, if you must, the charlatan's tools of trade; breathe faith and hope into these people. Guide them through this terminal period in such a way that the quack never obtains a foothold.

James L. Trawick, deputy director of the Food and Drug Administration, has outlined a four-point program to strengthen protection against cancer quackery. They are worthy of repeating.

1. The FDA should be provided with enough money and personnel to deal with the quacks who depend upon interstate commerce in drugs and devices for their operations. The present resources are inadequate.

2. State laws on medical practice and licensing should be strengthened.

3. The public needs more education about the accomplishments of modern medicine. Many persons do not realize that the chances of cure in certain types of cancer are as good as they are.

4. Medical and dental societies must be prepared to investigate and take appropriate action against members of their own groups who stray into quackery and to conduct educational programs for members of their profession as well as for the public.

As professional people, it is our duty and our obligation to do everything possible to stop this charlatanism which results in unnecessary death, unwarranted mutilation, economic loss, and mental anxiety. In this country, the course is quite clear. When any of us hear of a practicing charlatan, the fact should be reported to the state board of medical or dental examiners. Investigations will follow:

In the case of individuals who persistently refuse to stop these undesireable practices, legal aid must be brought into the picture. New laws and penalties may need to be drafted, to deter premeditated quackery. This does not mean that well-meaning individuals presenting anticancer agents shall be viewed in the category of quacks. We do have a duty, in this age of research, to examine every such cure carefully, no matter how unreasonable it may seem. Many of our known cures for disease have come from obscure research. However, it is also our duty and responsibility to inform and protect the public from the menace of cancer charlatanism which in our age is increasing.

—B. E. Luck, D.D.S., Lansing.

DEFEATING CANCER

It is now fifteen years since the publication of the first report on diagnosis of uterine cancer by the vaginal smear method by Drs. Papanicolaou and Traut. Most physicians and especially pathologists were cautious in their appraisal of this new technique of cancer detection by cytology (cell) method, but in the years since then the medical profession has established beyond doubt that cytologic examination is a very useful tool in detecting early cancer of the cervix.

The Journal of the Michigan State Medical Society reports that in the Detroit area there has been an enormous increase during the past few years in the examination of uterine and vaginal material by cytologic methods for the early detection of cancer. Before introduction of this method there were only a few examinations made each year and most pathologists of the area had little enthusiasm for and not much experience in the use of this method. An exception was a Wayne State University study suported by the American Cancer Society. There are now thousands of these examinations a year in the Detroit area and the service is growing rapidly Whereas such examination was usually tagged with a $10 fee, the cytologic examination is usually offered at Detroit for $5 or less.

Most studies have yielded one new case of can-

(Continued on Page 1664)

Now, after just 12 months, SPONTIN has become an outstanding drug of choice against resistant staphylococci, and in other serious coccal infections.

Six papers presented at the Antibiotics Symposium[1] reported the effectiveness of SPONTIN against resistant staphylococcal infections. Clinical reponses involved enterococcal endocarditis, staphylococcal pneumonias and staphylococcal bacteremias. Many of these patients were going downhill steadily—in spite of treatment by other antibiotics.

Toxicity? Careful attention to dosage recommendations has practically eliminated toxicity and side effects as serious obstacles to therapy. Also, recent improvements have been made in the manufacture of SPONTIN; the drug is now made from pure crystals. A recent report[3] in the Journal of the American Medical Association concluded, "It is our opinion that, if proper precautions are observed, ristocetin is a safe and potent agent to employ in the treatment of staphylococcal infections."

If you do not have the revised literature on this lifesaving antibiotic, please contact your Abbott Representative soon; or write direct to Abbott Laboratories, North Chicago, Illinois.

INDICATIONS: Against a wide range of staphylococcal, streptococcal, pneumococcal and enterococcal infections. A drug of choice for treating serious infections, particularlythose caused by organisms that resist all other antibiotics.

DOSAGE: Administered intravenously. In pneumococcal, streptococcal and enterococcal infections, a dosage of 25 mg./Kg. will usually be adequate. Majority of staphylococcal infections will be controlled by 25 to 50 mg./Kg. per day. It is recommended that the daily dosages be divided into two or three equal parts at eight- or 12-hour intervals.

SUPPLIED: In vials containing a sterile, lyophilized powder, representing 500 mg. of ristocetin A activity.
Be sure your hospital has it stocked.

Abbott

1. Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 15, 16, 17, 1958.
2. Antibiotics Annual, 1957-58, p. 187-98.
3. J.A.M.A., 167:1584, July 26, 1958.



Medicolegal Forms

This month, we present two simple forms of letters which the physician will sometime find occasion to use as a precaution against liability arising from the abuse of the physician-patient relationship. On more than one occasion, such a communication has furnished a defense to an unfounded claim or suit brought by a disgruntled patient.

As usual, these forms have been selected by MSMS Legal Counsel from "Medicolegal Forms with Legal Analysis," prepared and published by the Law Department of the American Medical Association.

LETTER TO CONFIRM DISCHARGE BY PATIENT

Dear Mr._____:

This will confirm our telephone conversation of today in which you discharged me from attending you as your physician in your present illness. In my opinion your condition requires continued medical treatment by a physician. If you have not already done so, I suggest that you employ another physician without delay. You may be assured that, at your request, I will furnish him with complete information regarding all medical facts, diagnosis, and treatment which you have received from me.

Very truly yours,

_____, M.D.

LETTER TO PATIENT WHO FAILS TO FOLLOW ADVICE

Dear Mr. _____:

At the time that you brought your son, William, to me for examination this afternoon, I informed you that I was unable to determine without X-ray pictures whether a fracture existed in his injured right arm. Although I insisted and still do insist that an X-ray study should be made of William's arm, you have refused to follow my advice. I strongly urge you to permit me or some other physician of your choice to make this X-ray examination without further delay.

Your neglect in not permitting a proper X-ray examination to be made of William's arm may result in serious consequences if in fact a fracture does exist.

Very truly yours,

_____, M.D.

in all diarrheas

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What They Thought About the 1958 MSMS Annual Session

David Adlersberg, M.D., New York City (guest essayist): "It seems to me that your Meetings were very well organized and fruitful. I enjoyed my participation greatly. Thank you for inviting me to this most interesting meeting."

Clayton T. Beecham, M.D., Philadelphia (guest essayist): "I cannot adequately express my pleasure at having been a guest of the Michigan State Medical Society. The hospitality shown me could well serve as an example for other Medical Societies. Thank you again for the invitation and all good wishes for the continued success of your State Society."

H. L. Bockus, M.D., Philadelphia (guest essayist): "Thank you for your splendid hospitality and kindness to me during the recent trip to Detroit. It was most enjoyable and it was so nice to once again meet the daughter of Elmer Egleston and his very worthy son-in-law. The meeting was a grand success."

Ormond S. Culp, M.D., Rochester, Minnesota (guest essayist): "I considered it a great privilege to again be a guest of your State Society and assure you that my visit was a delightful one. Doctor Morley was a superb ubiquitous host and the service at the Sheraton-Cadillac left nothing to be desired. Thank you again for the invitation and superb hospitality."

Helen O. Curth, M.D., New York City (guest essayist): "Between the time of your invitation and the actual Meeting I observed with admiration the great care with which you prepared this Meeting. All this, however, was surpassed by what I saw and experienced in Detroit. I learned much from your organization of the Session. You did not overburden the physician with scientific papers. I considered it extremely fair to the physician and the exhibitors to leave much time for the exhibits. I, personally, was treated royally. The fruit you sent was most welcome. The orchid gave me much joy. I never had heard before of the institution of an ubiquitous host. In the person of Dr. Stella M. Delaini, I found a delightful illustration. The representatives of the press were intelligent and helpful and I am most grateful for the clipping, which I received today."

A. J. Elliot, M.D., Toronto, Ontario (guest essayist): "I enjoyed my visit with your society greatly and I felt very welcome with all the courtesies which were extended. The basket of fruit in my room in the evening was appreciated."

Harry Gold, M.D., New York City (guest essayist): "My experience in Detroit was a delight. Your Medical Society certainly knows how to make a guest speaker feel at home. It was a pleasure and a privilege to have participated in your program."

Lloyd E. Harris, M.D., Rochester, Minnesota (guest essayist): "I enjoyed my stay at the MSMS Meeting very much and wish to compliment you all on the dispatch with which the meetings were conducted. My particular host, Doctor Scott, certainly was grand in every way and I surely do appreciate him."

Frank B. Kelly, Jr., M.D., Chicago (guest essayist): "Both Mrs. Kelly and myself were very appreciative of the hospitality given to us by the Michigan State Medical Society. We wish to thank the Society for the nice accommodations, the basket of fruit and the corsage given Mrs. Kelly. Also I wish to thank Doctor A. Hazen Price for being my personal host during our stay. Again, thanks to the Society for kind hospitality."

Theodore K. Lawless, M.D., Chicago (guest essayist): "The hospitality and fellowship shown by the members of MSMS was indeed of a high level. The honor and privilege of attending is herewith expressed with kind thanks."

Perrin H. Long, M.D., Brooklyn, New York (guest essayist): "I do want you to know that I greatly enjoyed my short visit with the Michigan State Medical Society. Thank you for inviting me."

Waldo E. Nelson, M.D., Philadelphia (guest essayist): "I have just returned from my third visit at your State Meeting. Each time I am impressed with how well the meeting is run, the size of your attendance, and the interest of the group. I do not know when I have had a more enjoyable day. Doctor Eddie Wishropp saw to it that a number of my good friends were brought together for lunch, and I had an ample opportunity to see a good many of the Pediatricians during the day time as well as at the banquet and the evening meeting. All of this is simply a way of expressing my appreciation for the honor and privilege which you have extended me by asking me back for the third time."

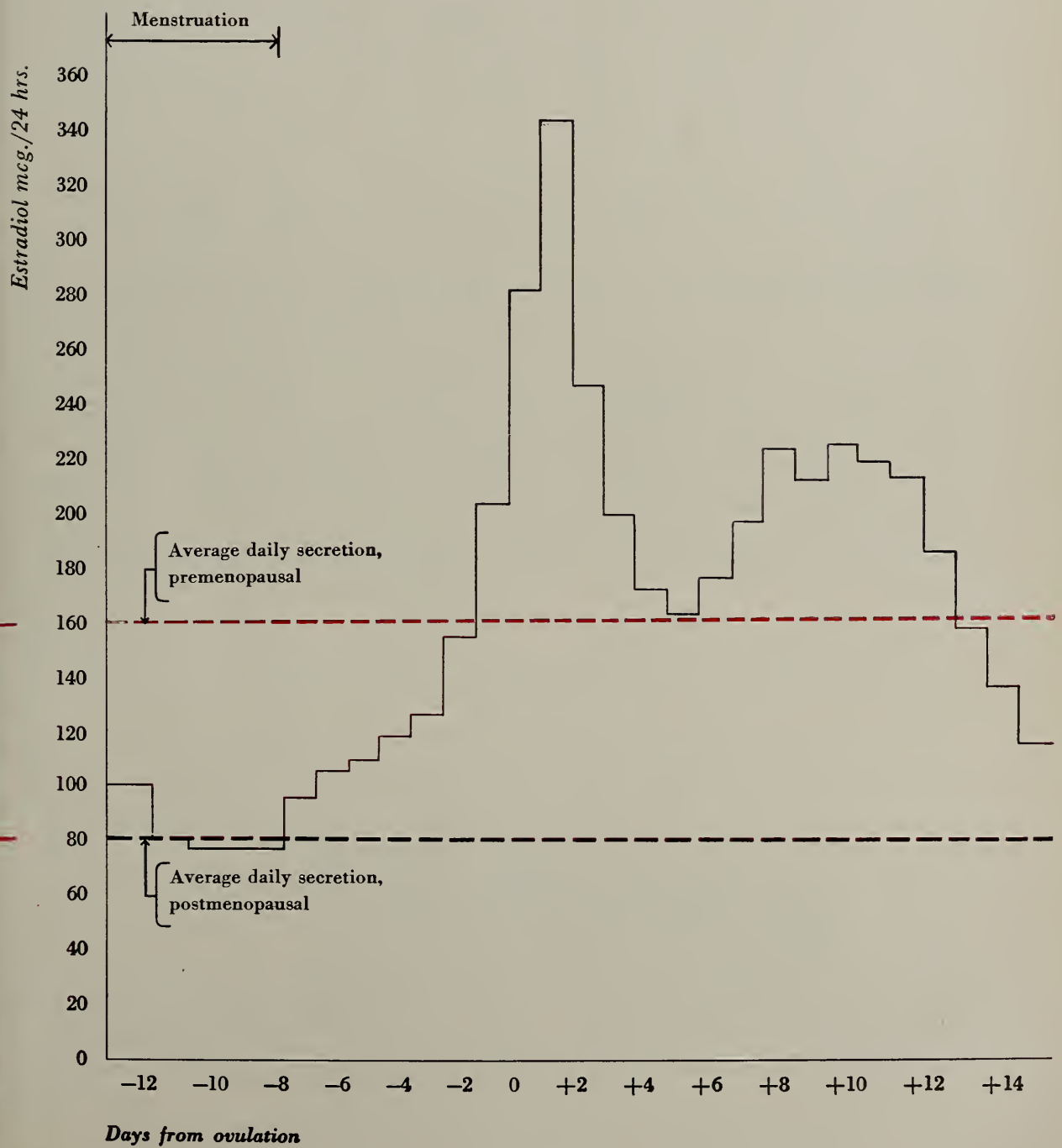
Ralph A. Reis, M.D., Chicago (guest essayist): "Just to let you know how very much I enjoyed my visit with your Society in Detroit on September 30."

Lewis L. Robbins, M.D., Glen Oaks, New York (guest essayist): "It was a great pleasure to have participated in your meeting and I wish to thank all concerned for the many courtesies afforded me during my stay."

Thomas L. Shipman, M.D., Los Alamos, New Mexico (guest essayist): "I wish to take this opportunity once again to express my gratitude to MSMS for honoring me by inviting me to speak at the meeting. It was a thoroughly pleasant experience and my personal host, Doctor Anderson, took excellent care of me. Your thoughtfulness and kindness were very important factors in mak-

(Continued on Page 1664)

Endogenous estrogen secretion (mcg./24 hours)
(calculated from average 24-hour urinary excretion of estradiol, estrone, and estriol)



(Continued from Page 1660)

ing my visit to Detroit completely enjoyable. The procedure of assigning someone to take each guest under his wing is a very good one and I will plan to copy it when next we have a meeting here in New Mexico."

Joseph A. Sullivan, M.D., Toronto, Ontario (guest essayist): "I wish to tell you how kind you people were to me—the wonderful care you took of me at the hotel, and Doctor Croushore was more than considerate."

Harry H. Waggenheim, M.D., Philadelphia (guest essayist): "I was honored to be asked to give the two papers at your recent meeting—and as usual thoroughly enjoyed myself in Detroit. You and the society are so thoughtful and considerate of your guests that it becomes a treasured, rare experience to join you at your annual meetings and a fine scientific experience to attend them."

Raleigh C. Oldfield, M.D., Oak Park, Illinois (president Illinois State Medical Society): "Again permit me to thank you for the wonderful time I had at your Annual Session. All members of MSMS were gracious to me and saw to it that I enjoyed my too short stay with you. Your banquet was a fine affair. Your House of Delegates meeting gave me many helpful ideas for our own sessions."

Alice E. Palmer, M.D., Detroit (Secretary of Dermatological Section): "Our compliments to you for a wonderful job!"

Thomas A. Petty, M.D., Grosse Pointe Park (Ubiquitous Host): "It was the first time I served in the capacity of ubiquitous host, or indeed to have had the opportunity to observe the function of the Michigan State Medical Society at such close quarters. I am seizing this opportunity to tell you how impressed I was by the organization and the expeditiousness with which you and your staff handled this undertaking. I was quite satisfied to be associated with your efforts, even in this small way."

S. R. Russell, M.D., St. Johns, Michigan (Chairman of Assembly: "I would like to state, without reservation, how much I appreciate the tremendous amount of work that you and your staff do in arranging one of these medical meetings, such as we have just had in Detroit. I always knew there was a tremendous amount of work involved, but until I had the privilege of participating in a humble way in the presentation program, I never quite understood just how important it was, all these many fine points that have to be brought altogether, in order to make a program successful. I particularly was grateful for the so-called 'Ubiquitous Host,' whose duty it was to bring the speaker to the Grand Ballroom. In every case, this was done very promptly and it was certainly a great relief to the chairman to have somebody keeping track of the speaker, because it is indeed most necessary for smooth functioning. As a member of the Society, I wish to commend you on your excellent, administrative ability and perfect organizational skill and constantly wonder how many members of the State Society realize how fortunate we are in having one, such as yourself, in the position you hold."

Lorne Whittaker, M.D., St. Catherines, Ontario (President, Ontario Medical Association): "I should like to inform you of my deep appreciation for the hospitality which was extended to Mrs. Whittaker and myself at the time of your Annual Session. Doctor Wiley was most kind in acting as my host and I sincerely thank you all for a most enjoyable stay in your midst. I was particularly interested to be present at some of the meetings of your House of Delegates. It was quite apparent that your problems are similar in many respects to those which we meet in Ontario. Please convey to Doctor Slagle and Doctor Saltonstall our grateful thanks."

Vincent L. Carsons, Geigy Pharmaceuticals, Yonkers, New York (technical exhibitor): "Communications received from our representatives attending our booth at the recent MSMS Annual Session indicate that this meeting was very well organized and conducted. We had a most satisfactory experience for which we extend our appreciation. We want to be with you again next year."

DEFEATING CANCER

(Continued from Page 1652)

cer of the cervix for each 100 women examined. When cancer of the cervix is detected in very early stages, treatment is relatively simple and the results are most gratifying, says the Journal. The cure rate approaches 100 per cent for early treatment but survival is less than 50 per cent in cases of neglect, so the urgency for widespread use of this cancer test among women is apparent.

The Upper Peninsula can take pride in having been far ahead of the Detroit area in the provision of cytological testing for its people. The cytological laboratory at St. Joseph-Lloyd Hospital in Menominee serves all doctors of medicine of the Upper Peninsula without charge and its services have grown from 623 examinations in 1950 to 4,255 in 1957. This increase means that the lives of many persons have been saved by early diagnosis and treatment.

The work load at the laboratory has become so heavy, however, that the Upper Peninsula Division of the American Cancer Society is now studying means of supporting an expanded program of cytologic testing for the Upper Peninsula. Meanwhile the service at Menominee will be continued for another year with Cancer Society support, enlightened and progressive lifesaving service to the public.

Doctors hope that the day is not distant when every woman of thirty will have the benefit of cytologic examination at least once a year. When this program becomes a reality, cancer of the cervix will no longer represent a major health problem.—*Escanaba Daily Press,* September 6, 1958.

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FOR RELIEF OF ANXIETY
AND MUSCLE TENSION

Selective

Does not interfere with autonomic function
Does not impair mental efficiency,
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AMA Washington Letter

THE MONTH IN WASHINGTON

The 86th Congress convenes January 7 with a top-heavy Democratic majority in both House and Senate. This, in turn, will find all Congressional committees including those dealing in health bills, with a higher proportion of Democrats.

Because legislation rarely gets to the floor for a vote unless some committee sends it there, the makeup of committees are of considerable importance in any Congress. It will be doubly so in the 86th Congress, where so many new personalities and new ideas promise to abound.

In the Senate during the 85th Congress when the line-up was forty-nine Democrats to forty-seven Republicans, committees were fairly even divided —generally only one more Democrat than Republican. With the ratio in the Senate increased to sixty-two to thirty-four, committee composition may run as much as ten to five or nine to six in favor of the majority party. The Reorganization Act of 1946 assures each Senator of two committee assignments, which means twenty-six new places have to be found on Senate committees in January.

The party ratio for House committees likewise will run high in favor of the Democrats.

Each party and each branch of Congress have their own way of naming members to the many committees.

In the Senate, the Democrats make appointments through a standing fifteen-man group known as the Democratic Steering Committee. Its chairman is Majority Leader Lyndon Johnson and other members are Senators Mansfield, Hennings, Chavez, Ellender, Frear, Russell, Hayden, Holland, Humphrey, Pastore, McClellan, Robertson and Johnston of South Carolina.

The Republicans in the Senate make their appointments through a five-man Committee on Committees which in the last Congress was made up of Senators Knowland, Bricker, Saltonstall, Bridges and Dirksen.

In the House, the selection of Democratic members is done by the majority members of the Ways and Means Committee which sits as a Committee on Committees. The Republicans have a different approach. When Congress convenes, each state delegation meets and names a representative to a Committee on Committees; he has as many votes on the committee as there are Republicans in his delegation. Chairman of the committee is Minority Leader Joseph Martin.

The House Ways and Means Committee which undoubtedly will be considering legislation of import to physicians (hospitalization of the aged under social security and tax deferrals on money paid into annuities) has for several years been divided fifteen Democrats to 10 Republicans. This ratio may change to seventeen to eight. In any event, seven members will not serve in the new Congress. One was lost through death, four through decisions not to run for re-election to the House and two to defeat at the polls.

The Senate Finance Committee, which will be handling much the same legislation as Ways and Means, has been divided eight to seven. It is certain that three Republicans will not serve again; two retired from the Senate and one was defeated in the recent elections.

House Interstate Committee, another group of importance to the profession because of its interest in federal aid to medical schools and Hill-Burton amendments among other things, has lost the three top ranking Republicans and the only Physician serving on a committee dealing with health. Either they did not seek re-election or they were defeated at the polls.

Senate Labor Committee, which has jurisdiction over most of the major health proposals in the Senate outside of social security, loses three Republican members. Its present lineup of eight to seven will be changed too, probably to ten to five.

* * *

Physician members of the 85th Congress number four. This is one less than in the 85th Congress. Returned again were Dr. Walter Judd of Minnesota and Drs. Thomas Morgan and Ivor Fenton of Pennsylvania. Defeated were Dr. Will Neal of Virginia and Dr. A. L. Miller of Nebraska.

One new doctor has been added. He is Dr. Thomas Dale Alford, a board ophthalmologist of Little Rock, Arkansas, where he has been in active practice since 1948. Dr. Alford, forty-two, was educated in Arkansas schools and received his medical degree from the University of Arkansas. He served in the Army Medical Corps during World War II.

Dr. Morgan, who has been acting chairman of the House Foreign Affairs Committee since last summer, is slated to become chairman when the new Congress is formally organized. He will thus be the first physician chairman in the 136 years of the committee.

83% MAJOR (Grade I and II) IMPROVEMENT*

in Rheumatoid Arthritis

*Using combined drug therapy with PLAQUENIL® or Aralen® as maintenance th With Plaquenil or Aralen alone 62% grade I and II improvement. (Scherbel, A.L.; Harrison, J.W., and Atdjian, Martin: Cleveland Clin. Quart. 25:95, April, 1958. Report on 805 patients with rheumatoid arthritis or related diseases.)

Reasons for Failure:

1. Treatment discontinued too soon (percentage of patients improved increases substantially after first six months).
2. Patients in relapse after prolonged steroid thera are resistant to Plaquenil or Aralen treatment for several months.

Plaquenil sulfate is supplied in tablets of 200 mg., bottles of 100.

Dose: Initial — 400 to 600 mg.
(2 or 3 tablets) daily.
Maintenance — 200 to 400 mg.
(1 or 2 tablets) daily.

Write for Booklet.

Aralen (brand of chloroquine) and Plaquenil (brand of hydroxychloroquine), trademarks reg. U.S. Pat. Off.

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Editorial Comment

BLUE SHIELD

To have or have not, to be or not to be represented, to be master or servant; these are the questions before each of us today.

Do we accept Blue Shield? A plan that we formulated and still have a voice in management. If it fails, by our refusal to accept it or by other means; there will be another plan ready to take its place in Michigan. A plan that is functioning in other states and wholly controlled by other organizations.

The Saturday Evening Post published a series of articles on Blue Cross-Blue Shield this past summer. In part, it pointed an accusing finger at a very small percentage of M.D.'s who by their actions have raised the cost of Blue Shield a few percentage points needlessly.

Blue Shield is not an Utopia, but it is far better than the plan that is being groomed to replace it. —Kenneth W. Toothaker, M. D., President, Ingham County Medical Society, September, 1958.

* * *

Much has been said about the Blue Shield program. At a spring meeting of our Society, the attending membership accepted the program unanimously, an action which followed logically from the attitude of the State Society, whose House of Delegates had already committed itself to the policy which it had outlined. It is now important for individual doctors to decide to become participating members. About 18% of our local physicians still are reluctant to acknowledge the urgency of this action. To persuade them to conform is not easy, for these men have spent their lives learning to make individual decisions.

Let me point out, however, that those who withhold their participation may be encouraging further socialistic trends and that they would be in a stronger moral position to push for the changes they desire if they would present their views as members. The House of Delegates Committee on Fees now has become an open forum for the consideration of such appeals—a sort of court of appeal for the exercise of self-discipline. —E. C. Galsterer, President, Saginaw County Medical Society, September, 1958.

BLUE SHIELD—WHAT HAVE WE PROVED?

The earliest statewide pre-payment plans for medical care were started just twenty years ago, and this seems like an appropriate time for us physicians to tote up our achievements in creating and sponsoring the mechanism we call Blue Shield.

What, essentially, have we accomplished through Blue Shield?

Most obvious is the fact that through our Blue Shield Plans, we are helping one out of every four people in the U.S.A. to prepay for basic medical service.

Through these Plans, we physicians have set the pace and pattern for the evolution of the entire voluntary medical care insurance program in the U.S.A.

Through Blue Shield, we have proved that medical care can be prepaid by voluntary cooperation of doctor and patient on a nationwide scale—with free choice of physician for the patient, fee-for-service for the doctor, and a private confidential relationship between them—and that the American people like it that way.

Through Blue Shield, we have shown that patients and doctors don't need any outside agency to bring them together, and that no one but the patient himself needs to profit from prepaying his medical care costs.

Through Blue Shield, it is fair to say that we doctors have given our fellow countrymen perhaps the most convincing demonstration of the past twenty years that, working together voluntarily, we can solve even our most urgent and complex social problems within the framework of our private enterprise system in the U.S.A.—Blue Shield Medical Plans, Inc. News Service.

CALLING SIR BLISTER O'CARDIOGRAFF

Do you suppose one red-blooded young doctor could select one problem and, by devoting all his political energies to it, accomplish any changes in a medical lifetime? Consider the following and reflect on the abundance of dragons still available to the would-be Lancelot.

The Federal Government spent $619,614,000 on hospitalized medical care of veterans in V.A. hospitals in 1957. Seventy-five per cent of this was for admitted non-service connected disability. Since ways and means of obtaining economy are being sought by Congress, the House urged Congressional action to restrict hospitalization of veterans in V.A. hospitals to those with service-connected disabilities! The House also recommended that the American Medical Association suggest to the Dean's committees that they restrict activities to Veterans Administration hospitals, admitting only patients with service-connected disabilities.

With Congress in this mood, it would seem a routine mission to remodel this ogre. The surprising feature is its interest in the saving of a paltry $464,710,500 annually. Perhaps the realization that in a very few years this saving would represent several billions, a more familiar and comfortable figure in Washington, qualified this proposal for serious considerations.

(Continued on Page 1674)

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your broad-spectrum antibiotic of first resort



effective against more than 30 common pathogens, even including resistant staphylococci.

Available forms:

1. Panalba Capsules, bottles of 16 and 100 capsules. Each capsule contains:

Panmycin phosphate (tetracycline phosphate complex) equivalent to tetracycline hydrochloride 250 mg.
Albamycin (as novobiocin sodium) . . 125 mg.

2. Panalba KM Flavored Granules. When sufficient water is added to fill the bottle, each teaspoonful (5 cc.) contains:

Panmycin (tetracycline) equivalent to tetracycline hydrochloride 125 mg.
Albamycin (as novobiocin calcium) . . 62.5 mg.
Potassium metaphosphate 100 mg.

Dosage:

Panalba Capsules
Usual adult dosage is 2 capsules q.i.d.

Panalba KM Granules
For the treatment of moderately acute infections in infants and children, the recommended dosage is 1 teaspoonful per 15 to 30 lbs. of body weight per day, administered in 2 to 4 equal doses. Severe or prolonged infections require higher doses. Dosage for adults is 2 to 4 teaspoonfuls 3 or 4 times daily, depending on the type and severity of the infection.

CALLING SIR BLISTER O'CARDIOGRAFF

(Continued from Page 1668)

Do you suppose this change will occur? Or do you feel that dealing with aspiring Congressional candidates would somehow be different from dealing with Congress? That discussion of "pauper's oaths" would again be introduced to stymie consideration of the principles involved? That empire builders masquerading as medical school deans would rationalize clever objections to this proposal in order to perpetuate their position in the present double standard of medical practice which they have created and nurtured? That the starry-eyed young knight would get arm weary hacking away at peripheral scales?

The market for stout-hearted men stands at an all time high.—Charles J. Ryan, M. D., *Bulletin Calhoun County Medical Society,* November, 1958.

A DIFFERENT LIGHT

There are times when statistics can cause jaws to drop more dramatically than the choicest bit of scandal. We were a little amazed to see a bit of hidden data on unemployment which sheds a special beam of light, to say the least.

What we learned from the current issue of *Business Week* magazine is this: Of total unemployed so widely advertised, 845,000 are between 14 and 17 years of age, or older than 70!

The unemployed children number 801,000 and those older than 70 make up the difference. If those listed as unemployed were counted from 65 to 70 years another 95,000 unemployed would be accounted for.

In other words, nearly one million of our publicized unemployed are in the under-and-over categories. A look at the positive side shows that 3.2 million children do have employment while another 1.4 million 70 and over also are holding down jobs.

If while talking about the nation's five million unemployed earlier this year, statisticians had acknowledged that 20 per cent were outside the normal labor force age, the economic picture would have been shown in truer focus. Better late than never.—From the *Saginaw News,* reprinted in the *Battle Creek Enquirer-News,* August 13, 1958.

ROSENZWEIG VS. STATE OF NEW YORK

A malpractice suit, interesting from the factual background and unusual setting in which the injury occurred, was decided in March, 1958, [*Rosenzweig as Adm.* v. *State of New York,* 5 App. Div. 2nd 293 (3rd Dept.)]

The opinion, brief in its recitation of facts and in its statement of the applicable provision of law, is reproduced here.

Claimant has been awarded $80,000 for the alleged wrongful death of a professional prize fighter. The negligence of the State is said to be "permitting" or "licensing" decedent to engage in a professional fight when the State knew, or should have known, that he was not in proper physical condition to do so.

On August 29, 1951, decedent was "knocked out" in the eighth round of a professional fight in Madison Square Garden. It is without question that decedent was struck two very hard blows to the head immediately before his collapse. He died four days later from cerebral hemorrhage and cerebral edema. This was medically discovered by two open brain operations and autopsy. The negligence of the State found in the Court of Claims is the failure of examining doctors alleged to be employes of the State to discover a pre-existing brain injury from a previous fight without the benefit of open operation.

Decedent had engaged in a fight on July 24, 1951, and again on August 14, 1951. He lost the decision in both these fights by a technical knockout (T.K.O.), which means that the referee stopped the fight, although there was no actual knockout or "counting out." Before and after each of these fights the decedent was examined by a physician approved by the State Athletic Commission's Medical Advisory Board, but selected and paid by the promoter of the fight. This board (consisting of doctors) merely provides a panel of doctors considered qualified to make physical examinations of fighters, but the individual doctor for any particular fight is selected from the panel by the promoter and paid by the promotor. Under these circumstances there is serious doubt as to whether the examining doctor is an employe of the State, but, even assuming employment by the State, claimant has not established negligence on the part of the examining doctors. Their competency is not questioned, and it has been held that the State is not liable for an honest error of judgment by a doctor employed by the State. (St. George v. State of New York, 282 App. Div. 245, affd. 308. N. Y. 681).—H. S., *N. Y. State Journal of Medicine,* Nov. 1, 1958. (Quoted because of recent interest in Michigan in malpractice affairs).

DOCTORAL DEGREES

The University of Michigan has granted more than 20,000 doctoral-level degrees, according to statistics recently developed by the University of Michigan Office of Registration and Records.

The number of M.D.'s conferred by the University of Michigan passed the 10,000 mark this year. By fields, the total number of doctoral-level degrees awarded through 1957-58 is as follows:

Field	*Total*	*Year First Conferred*
Doctor of Medicine	10,252	1851
Doctor of Dental Surgery	4,765	1876
Doctor of Philosophy	4,612	1876
Doctor of Science	199	1889
Doctor of Dental Science	17	1894
Doctor of Public Health	57	1916
Doctor of Juridical Science	65	1927
Doctor of Education	65	1941
Doctor of Musical Arts	5	1956
Total	20,037	

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 57 DECEMBER, 1958 NUMBER 12

The Phrenotropic Drugs in Mental Illness

By Francis J. Braceland, M.D., Sc.D.

Hartford, Connecticut

EVERY advance in drug therapy brings with it new problems, new hopes, new desires and new horizons, but today in psychiatry the situation is particularly difficult, for we are having trouble in even keeping up with the names of the new agents which are pouring out from pharmaceutical houses throughout the world. Each time we think we are abreast of the new drugs at our disposal, a new batch appears and we begin all over again, for each of them is presented to the clinician with all manner and promise of exciting possibilities.

The difficulty in determining the clinical usefulness of these drugs is apparent. In this task there are always so many "X" factors involved. Not only is there the make-up, the susceptibilities, the climate and the idiosyncrasies of the recipient to be considered, along with the drug's potency, but there is also the make-up and the skill of the therapist to evaluate. I don't need to go into all of this here for this encompasses the very substance of the art of therapy. You know much more about this than do I, for it is a skill which is essential in daily practice. I suppose, however, that Stewart Wolf summarizes it best for us when he points out:

"It is important to realize that every contact with a physician may be a meaningful situation to a patient and hence may set off visceral responses which can have a salutary or adverse effect on health and well-being. The same goes for every procedure including surgery and every incident of giving medicine. This is of course why bread pills or any inert placebo may induce an effect not imaginary but very real and measurable. Perhaps this is why legions of amateur investigators convert the free pills of the detail man into enthusiastic print in medical journals year after year."

And then, in further regard to the clinical evaluation of medical agents, he adds:

"Therapeutic trials are in the real sense experiments and must be considered with all of the discipline and detachment required in experimental research. In any experiment there must be a question, a procedure and a result."

In psychiatry today we have vexing problems which have to do with criteria and controls for the evaluation of any therapeutic tools. Classification of psychiatric disorders varies in different countries, so that we do not have groupings which are sufficiently homogeneous to permit truly valid comparisons. Moreover, the psychiatrist has at his disposal few reliable physiological indices and must resort to criteria derived from either the patient's subjective response or from his behavior. Psychological tests offer some assistance, but they too leave much to be desired. It is evident, therefore, that much of what is being said today about pharmacological treatment in psychiatry can only be regarded as tentative.

Generically, the phrenotropic drugs include all drugs which affect the central nervous system and directly or indirectly influence mind and mood, thought and consciousness, expression and behavior. Included among them are central nervous

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system depressants, central muscular relaxants, central sympathetic suppressants, central nervous system stimulants, and hallucinogenic substances. Since it will be impossible to discuss all of these within the time limits of this presentation, I shall confine myself largely to those which have made a real difference in the clinical practice of psychiatry in the last several years. The most impressive are, of course, the central sympathetic suppressants—the phenothiazine derivatives and the rauwolfia derivatives.

With the publication in 1952 of the first clinical trials of chlorpromazine, a new era in the somatic treatment of mental illness came into being. For the first time psychiatrists had a sedative agent which dramatically calmed severely agitated patients without clouding of consciousness. One discovery leads to another and, as a consequence, we now have a large number of phenothiazine drugs which are useful in psychiatric practice. However, for major psychotic states none has as yet supplanted chlorpromazine.

Chlorpromazine, reserpine and their analogues act, it appears, on the mesencephalic and diencephalic regions. Chlorpromazine affects autonomic activity, the rage centers, metabolic functions and temperature control. Studies with radioactive sulphur have revealed an elective accumulation of this drug (and also of promazine) in the hypothalamic region after repeated doses. Through what is probably a suppressor effect in the hypothalamus, both chlorpromazine and reserpine influence endocrine function, producing galactorrhea and menstrual disturbances. The mesendiencephalic alerting system of Moruzzi and Magoun also shows an impact from these drugs. Stimulation of this system produces wakefulness and alertness, while depression induces sleep. According to electroencephalographic evidence, reserpine in small doses stimulates this alerting system and chlorpromazine sedates it, but in larger doses chlorpromazine also stimulates it. Both drugs in large doses tend to produce striatal symptoms. The importance of the mesendiencephalic alerting system and also of the related limbic, hippocampal and temporal areas in disturbances of behavior and emotion and in the regulation of level of consciousness has been repeatedly stressed in recent literature. The over-all effect of the powerful tranquilizers, it has been suggested, is apparently a complex result of inhibition and stimulation in these homeostatic centers.

The main value of the powerful tranquilizers thus far seems to be in the treatment of the more severe psychiatric disorders in the hospital setting. Their usefulness is not restricted to a particular mental disease. They treat, not a disease, but a basic physiologic disturbance common to various psychiatric disorders. The disturbance gives rise to overactive, aggressive and assaultive behavior, and it seems to be closely related to affect and mood. This is evident when we observe what happens to patients with elevation or depression of mood when they are given tranquilizing drugs. As a rule the manic patient is helped dramatically, but the depressed patient is not and may even become worse. Delay and his co-workers, who introduced chlorpromazine into psychiatry five years ago, state on the basis of their extensive experience that prolonged improvement is attained in 85 per cent of all cases of manic excitation, but that a true depressive process is not an indication for the drug. This experience has been repeated in too many places to even be questioned at the present time. Alexander of Rockland State Hospital has stated that the number of depressed patients able to leave the hospital after treatment with chlorpromazine or reserpine over a two-year period was smaller in percentage than the usual response of depressed patients to custodial care, which is about 35 per cent and more than 80 per cent when treated with electroconvulsive therapy (ECT). Thus, spontaneous recovery in depression seems to be impeded through the use of these drugs.

Our own experience with tranquilizing drugs in a private psychiatric hospital setting confirms the observations of many others. The manic phase of a manic-depressive psychosis is very effectively controlled by both reserpine and phenothiazine. Of the phenothiazine drugs we have used Sparine, Trilafon, Pacatal and Phenergen, in addition to chlorpromazine. In our experience the drugs of choice are chlorpromazine and Trilafon; they are practically specific in manic illness, bringing the whole picture under control in a most dramatic way. We have not had much experience with Vesprin, which is reputed to have a tranquilizing potency three to five times that of chlorpromazine and to have minimal side effects and a relatively low order of toxicity. It seems to be effective in controlling psychotic symptoms and aggressive behavior. Dartal is another fairly potent phenothiazine derivative. The same general side

reactions occur as with chlorpromazine, although its chronic toxicity has not been accurately determined.

Neither the phenothiazine nor the rauwolfia preparations are of much help in the endogenous depressions. In fact, as stated above, they often make the patient worse; they may even bring on the depressive phase of manic-depressive psychosis after the manic phase has subsided, and ECT may then be required to control the depression. We find that these drugs have some value in agitated depressions and cases with marked anxiety and tension, and that insomnia responds to them also; but the basic mood disturbance remains unaltered. The same observation holds for the sedative action of meprobamate (Miltown, Equanil). This central muscular relaxant is helpful in some cases, especially for the symptom of insomnia; but the psychotic depressive process is not basically altered. The new central nervous system stimulants, methylphenidate (Ritalin) and pipradrol (Meratran) are also helpful in elevating the mood of a depressed patient, but they are seldom curative.

In sum, as yet we have found no drug available which will do for depressed patients what electroshock therapy (EST) will do, unless of course iproniazid (Marsilid) lives up to the enthusiastic notices it has been receiving lately. A number of investigators in New York and New Jersey recently have been greatly impressed with this drug, which seemingly has ability to create a sustained feeling of vitality and well-being in debilitated and depressed arthritic and tuberculous patients. Published reports on the use of Marsilid in depressions are practically non-existent at the moment, but Kline at Rockland State Hospital has been using it with reported success. Furst reports good results in a series of 100 cases and Robie, the president-elect of the Electric Shock Association, on the basis of results in seventy cases, feels that Marsilid holds promise of supplanting electric shock in a large number of instances.

The difficulty with this drug resides in its possible toxicity and actual untoward side effects, and one must be constantly on the lookout for complications and be prepared to drop the dosage quickly. The side effects are connected with the central autonomic and peripheral nervous system. They include postural hypotension, light-headedness, constipation, loss of libido, blurring of vision, and hyperactivity of reflexes. This hyperactivity is usually accompanied by muscular contractions and spasms, especially noted when patients are relaxed and especially in bed before going to sleep. These latter occurrences are indications that the dosage of the drug should be immediately reduced.

From personal experience with Marsilid, we can attest its effectiveness in counteracting the depressive symptoms of some patients. However, we have found that the frequency of undesirable and potentially serious side effects at the recommended dosage are a little too high for us to continue its usage with comfort. DeVerteuil and Lehmann of Montreal recently reported a small series of cases—thirty-one—treated by Marsilid. While the clinical results were sometimes impressive, in several instances involving patients previously treated unsuccessfully with EST, these workers discontinued the treatment in view of the toxic reactions. The death of one patient from acute toxic necrosis of the liver was reported. A study of this case and two others showing a hypotensive reaction to Marsilid suggested to the authors that some side effects of the drug may be delayed and cumulative. It will be necessary to overcome these effects before Marsilid can be accepted in routine psychiatric treatment. Though it has been more effective than any drug thus far, because of the untoward reactions, particularly because of the liver reaction, which is a hepato-cellular type of jaundice rather than an obstructive jaundice, caution is the watchword.

A new drug which has been recommended for the treatment of depression is Deprol, a combination of meprobamate and benactyzine (Suavitil). Our experience with this, thus far, has not been too impressive, but admittedly ours were patients suffering from neurotic depressions and these are particularly difficult to evaluate. Leo Alexander has just published a paper on the use of this preparation in thirty-five patients suffering from relatively severe depression. He states that complete and/or social recovery was achieved in twenty patients (57 per cent) within one to twenty-five weeks (average eight weeks). Side effects, he says, were minimal and easily controlled. He points out quite properly that the treatment of depressions by drugs is always contingent upon careful arrangements to protect the patient from the risk of suicide. There are numerous other drugs and combinations of drugs which we could mention here, but actual evaluation of their usefulness should await a larger accumulation of experience.

I have been speaking of these various drugs, of course, in the context of hospital psychiatry. As far as office practice is concerned, the toxic properties and side effects of the powerful tranquilizers at times makes their use troublesome and even hazardous, if large daily doses are required. Reserpine causes more uncomfortable side reactions than chlorpromazine, but seemingly it has fewer serious toxic effects and seems to be more suited for long-term therapy. However, even more than chlorpromazine, it is likely to intensify an existing depression and even to evoke a depressive state in some individuals. Hence, a warning against the indiscriminate use of any of these drugs in patients who are prone to mood depression and who are unsupervised. Ayd finds that practically all cases of drug-induced depression have occurred in cyclothymic individuals over the age of forty when, statistically, in everyday life, depressions are most often to be expected. This should be kept in mind when we contemplate the use of tranquilizers, especially reserpine, in this age group.

To achieve therapeutic results in neurotic patients by the use of drugs alone is more than difficult. Psychotherapy remains the treatment of choice in this area. However, there are some neurotic states which are helped by tranquilizing drugs. Previously stable individuals suffering acute neuroses of recent origin are benefited. Pure anxiety and feelings of panic may be brought under control. In individuals who are beginning to show psychiatric symptoms under stress, these drugs may help prevent a serious breakdown. Patients with exhaustion states which might evolve into a chronic neurosis may also be carried through the period of danger. We have found tranquilizing drugs to be of no help in obsessive-compulsive neuroses. They may in fact induce depersonalization and call forth feelings of unreality.

A phenothiazine derivative which is potent in small doses for a sedative and muscle-relaxing effect is Compazine; this apparently has only minor toxic manifestations. Another mild tranquilizer with minimal side effects is Atarax. It has a beneficial influence on anxiety and tension symptoms in non-psychotic patients. Of the stimulating drugs, pipradrol (Meratran) appears to be quite useful. It has had positive effects in counteracting the lethargy and depression that often supervene in patients receiving tranquilizing drugs, antihistamines and anticonvulsants. It is of value in the depressed chronically ill. It has some value in the treatment of mild reactive depressions. Relatively small doses may produce a mild degree of stimulation with an improvement in mental outlook and an elevation of mood. It seems to be free of the euphoric effect and the after-depression seen with the amphetamines. However, patients who are moderately or severely depressed are not helped. The drug is contraindicated in anxious, agitated, over-active, excited or restless patients and it may provoke psychotic symptoms in prepsychotic individuals.

For sedative purposes, it would appear that meprobamate has a much greater margin of safety for ambulatory patients than most of the other new drugs. It rarely disturbs the autonomic nervous system, has a muscle-relaxing action and a calming effect in hyperactive patients. Its best indications are in the treatment of symptoms of anxiety tension states. Meprobamate seems to have a specific soporific action and often improves the sleep pattern. It is sometimes useful in the management of patients with psychosomatic disorders and may help reduce hypochondriacal preoccupations. Other than the reported occurrence of withdrawal convulsions, the disadvantages of meprobamate fall more into the realm of psychological effects—dependence, for instance, if the dosage is very large. Any indiscriminate use of these drugs should, of course, be avoided and, like every drug, they should be administered under close medical supervision.

One of the great, but erratic and unpredictable, advances made possible by the new drugs in psychiatry has occurred in the area of schizophrenia. The response of schizophrenic patients to them is inconsistent, perhaps in line with Bleuler's thesis that in schizophrenia we are dealing, not with one disease, but with a group of diseases. Thus, while the simple schizophrenic and the chronic hebephrenic patients rarely benefit from the drugs, the hyperkinetic catatonic does so greatly. This would be quite within the realm of expectation in view of the dramatic effect of these drugs on psychomotor excitement. More unexpected, however, is the therapeutic effect in some paranoid patients, especially the chronic paranoid. The effect of tranquilizers on their delusions is of exceptional interest. Under the action of chlorpromazine, the first occurrence is loss of emotional tension associated with persecutory delusions and hallucinations. With tension reduced, there is an improve-

ment in behavior. Presently hallucinations become less insistent and more passively experienced. Delusions arouse less interest, then doubt creeps in, and finally, in some cases, insight. The sequence of events with reserpine is much the same. Decrease in emotional tension is followed by a gradual de-accentuation of the delusional productions and of the acuity of hallucinatory experiences.

The disintegration of the delusional structure in schizophrenic patients on tranquilizing drugs has been carefully studied by certain investigators, particularly abroad. They have pointed out that with the reduction of affect, the delusion moves into the intellectual plane; there is a loosening of ideas of reference, and the patient finds the delusional content somewhat strange to the self. The delusions become past rather than present experiences, even though past delusional content continues to be accepted as authentic. In the final stage the delusional structure disappears and only the memory of it remains. The actual order of these stages of dissolution may vary. Awareness may be partial; it may appear and disappear several times. The same delusion may be experienced quite differently at the various stages toward recovery. A systematized delusion may persist as an autonomous structure external to the ego, its content being thought of as an event that happens to the self. The same process is evident in certain toxic psychoses in which the patient may reach a stage very near normality, at which the appearance of a torrent of hallucinations and perceptual delusions is received objectively, with complete consciousness of its morbidity. The rapid oscillation of symptoms may be impressive; a case of intoxication has been seen in which an intense hallucinatory delusional structure was compatible with the full realization of its morbidity an instant afterward, was then followed by the resurgence of the hallucinations, and so on. It has also been found that relapse, when it occurs in paranoid patients who have responded to drug therapy, is marked by a resurgence of symptoms in the reverse order of their disappearance. You can see from all of this the fascinating era which is opening up in psychiatry. You can see also that these new drugs are treating the doctors as well as the patients.

Follow-up studies are now appearing after substantial periods of large-scale use of tranquilizing drugs to see what effect they are having on mental hospital population. In New York State, the census of mental hospitals in 1954 was over double what it had been twenty-five years before and the increase from year to year showed no visible influence from twenty years of such somatic therapies as insulin, electroshock and lobotomy. With the increase in the use of the new drugs in 1955-56, following preliminary study the year before, the residual population of the state hospitals showed a decline of some 500 patients, a figure that was repeated during 1956-57. The only reason that could be found for this change in trend was the drugs. Vagaries of population growth could not be implicated. It is also of interest that the 1955-56 improvement was relatively greater among the so-called functional cases and cases of longer hospital stay, especially schizophrenics. It is also noteworthy that the rate of hospital admissions remained high and that the decrease involved primarily a fall in residual schizophrenic population. At the same time the rate of return to the hospital, as a result of relapse, was slightly less than it was before drugs were instituted. I am not sure that this is true of the rest of the country. There was here, of course, as there was everywhere else, an outstanding reduction in the use of restraint and seclusion for disturbed patients.

There are numerous other studies suggesting the value of these new drugs, but I shall not go into them here. I would rather quote for you another statement from Wolf's classic study on placebo: The patient involved had had asthma for twenty-seven years; status asthmaticus at times over a period of seventeen years. Then one day a new drug was found which relieved him. Taken away, the asthma returned; put on the drug again, relief. Placebos did not work, only the original drug, but the supply of that drug was running low. An urgent call to the manufacturer for more of the same brought instead a shamefaced vice-president who apologized because, through fortuitous circumstances, an inert substance had been supplied originally. There are many lessons to be learned from this, but I am almost afraid to draw them to attention. Like Burton in his *Anatomy of Melancholy,* I shall "urge these cavilling and contumelious thoughts no further, lest some physician deny me physic when I am ill." For myself, I am well persuaded of physic and, when my time comes, I want my thorazine or serpasil.

What I am really saying is this: In our pleasure

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Newer Therapeutic Weapons Against Disorders of the Nervous System

By Howard D. Fabing, M.D.
Cincinnati, Ohio

NOBODY will dispute the fact that the greatest new weapons in the hands of the physician of our times have been the antibiotics. World War II was an entirely different medical experience than World War I on their account. These great drugs have changed the whole face of postwar medicine in the civilized world. If no other new tools of treatment had emerged in the last score of years, they alone would have put us far ahead of our predecessors in the healing arts. But there have been other gains, too.

One of the areas where these advances have been most notable is in the field of neurology and psychiatry. A generation ago the central nervous system—the brain and its appendages—was looked upon as a mysterious mass of soft tissue which was unchangeable. When it got sick it seemed to stay sick, and to get progressively worse until death, riding swiftly or crawling slowly, brought the inexorable outcome. The first real breakthrough came shortly after World War I, when Wagner-Jauregg, the massive man from Vienna, showed that tertiary syphilis of the brain, or general paresis, could be treated by malaria-induced fever.

It was my good fortune to see some of the further advances at close hand. I was a house-officer at the Boston City Hospital in 1934 when Merritt and Putnam began their systematic search for new anticonvulsant drugs. I sat in the same classroom where a young lady doctor from London put two and two together and figured out a specific treatment for myasthenia gravis a short time later. I was in the audience when George Minot addressed the Royal Society of Medicine on his way to Scandinavia to receive the Nobel Prize, and when he announced that he had succeeded in reversing the neurological disturbances in seventeen patients with pernicious anemia. I saw Muller, the second man in the world to use Metrazol intravenously to produce convulsions for therapeutic purposes, give one of his first treatments in a Swiss hospital. I made ward rounds with Sakel one day in the Krankenhau in Vienna when he was just beginning insulin coma treatment, and then we walked to his house together and sat in a bay window on the second floor, looking down on the traffic in the street, talking about his exciting findings, and drinking a bottle of wine almost in celebration of what was unfolding in this branch of medicine.

And so it goes. I consider my professional life a most happy one. I am just old enough to have witnessed these beginnings, and to have known many of the giants who brought them to pass. My teachers were scholarly diagnosticians and classifiers of illness. My contemporaries are therapists who have as good a batting average as most specialty groups in the business of getting sick people back on their feet. This has all happened within my professional lifetime, and I am humbly grateful for my ticket to the show—a show which has kept right on playing without any sign of folding up.

What are the results of this effort? What can be done for neurologic and psychiatric illnesses today? What can't be done? What may we expect, with a reasonable amount of luck, in the near future?

I shall never forget the first patient I saw snatched from the clutches of sure and rapid death from streptococcic meningitis a little more than twenty years ago. She was a beautiful young blonde ballet dancer who had been operated upon for an acute mastoid infection. When her neck got stiff, when she became opisthotonic, when she went out of her head, and when cloudy spinal fluid spurted under great pressure from the needle which had been inserted in her lumbar spinal sac, we all shook our heads and dropped our eyes in the face of the calamity which was ahead for her and her new husband. But a new medication called sulfanilamide had just been introduced, and we tried it, and the impossible happened. She is still with us, the mother of a brood of towheaded beauties.

The acute bacterial meningitides hardly ever get as far as the neurologist any more. It is hard for those of you who are recently out of school to understand how different this is from the situation when Coolidge was President. In those days these patients always seemed to arrive in hospital in the middle of the night. They were desperately ill. The urgency of their illness demanded the attention of great numbers of hospital personnel who worked with them around the clock, usually to no avail. I can remember a woman who went to church one Sunday, enjoyed the sermon, cooked Sunday dinner, began to get a headache while she was doing the dishes, became delirious at sundown and was dead of pneumococcic meningitis at 2:30 the next morning. The older men here have all had similar experiences.

I used to tell medical students that they were fools to ever give a prognosis of death within a certain time—that the patient often lived on and on and spent his declining years laughing at the doctor who wrote him off. But I used to say that there was *one* situation where you could do this and get away with it. You could tell the family of a patient who had the spinal fluid findings of tuberculous meningitis that he would be dead in two—or if you wanted to be absolutely sure, three—weeks, and you would never miss. Intensive antibiotic therapy plus isonicotinic acid hydrazide (I.N.H.) plus para-amino salicylic acid have changed all that. Tuberculous meningitis, instead of being 100 per cent fatal, is now 80 per cent curable. Virus infections of the meninges and brain, like virus infections elsewhere, are still untreatable for the most part. Many sober virologists, however, feel that specific agents are not too far away in this field. Time will tell whether or not acute anterior poliomyelitis, the most devastating of the neurotrophic virus diseases, will be preventable with the use of Salk's vaccine, or whether the oral vaccine of Sabin and others may ultimately prove to produce a longer-lasting immunity. The conquest of this disease will be a tremendous gain for mankind.

General paresis, tabes dorsalis, and other forms of brain syphilis have now become clinical rarities. This is a far cry from the way things were when I started in medicine. Although massive doses of penicillin alone or in combination with artificial fever therapy will arrest and reverse the clinical course of most of the infrequent paretic patients a neurologist still sees, there are some who go downhill despite these efforts. This treatment regime, like all others before it, does not seem to help the rare tabetic patient one finds nowadays. The treatment of tertiary brain syphilis today is not to let it happen, and to treat the patient with massive penicillin therapy before these complications arise. I have not seen a new case of tabes dorsalis in the past two years, and last year I saw only one patient with early paresis, thanks to the good work of the general practitioners in treating them early.

Combined system disease, or the posterolateral sclerosis associated with pernicious anemia, has also become a rarity. These cases were relatively common in neurologic practice not so long ago. When Minot and Murphy introduced liver extract as a specific treatment for the primary anemias it was thought that the spinal cord complications were not favorably influenced, but persistent application of the medication finally demonstrated that they, too, could be relieved. I remember a farm woman who arrived in the hospital with her knees bent up on her belly. Her legs had gotten progressively weaker over a four-year period despite the use of sulphur and molasses, various herb teas and vigorous massage with turpentine and lard by her devoted family. She finally developed a paraplegia in flexion. Laboratory study demonstrated the presence of pernicious anemia. Massive doses of liver extract were given to her orally and parenterally, and I saw her walk out the hospital with the help of a cane twelve weeks later. It has now become evident that Vitamin B_{12} is the agent responsible for the therapeutic effect of liver in these cases. Folic acid will produce hematologic remission but the addition of the vitamin is necessary to prevent or to ameliorate the associated nervous system complications.

In 1934, Mary Walker was serving as a physician in one of the London County Council Hospitals. She was upset about a woman under her care who looked like she was going to die from myasthenia gravis. One of the upsetting things for Dr. Walker was that this was such an unpleasant way to die. Muscles became weak and flabby and lifeless. Even those of the face were affected, so that her expression was flat and incapable of the play of emotion. The eyelids drooped from weakness, the voice faltered and swallowing occurred only with great effort, while the mind remained fully alert during this tortur-

ing paralysis. Dr. Walker's patient, like all those with myasthenia, had her ups and downs. At times, especially in the mornings, she was stronger, and could talk and swallow and open her eyes a bit and perhaps move her hands, but as the day wore on, the mask of death would settle over her features again. Any day now the paralysis would overtake her chest musculature and her diaphragm, and she would die in fact. This was the kind of death which seemed to have been devised by the Devil himself.

One afternoon Dr. Walker was listening to a learned lecture on myasthenia gravis at the National Hospital in London's Queen Square, the world-renowned center which has brought forth so many generations of England's outstanding leaders in neurology. The hour was late and it was cold and foggy. The lecturer talked about many things, and heads were nodding despite the cup of tea most of the listeners had managed to swallow before hand. Then a statement floated out on the air from the lecture platform that myasthenia gravis patients had much the same appearance clinically as South American Indians who were struck by arrows that had been dipped in curare. Dr. Walker scribbled this fact in her notebook. She thought about it on her way home. When she got there she looked into a book and found that the antidote for curare poisoning was physostigmine. Why not try it? There was nothing to lose. She went up on her ward, put some physostigmine into a syringe and injected it into a muscle of her moribund patient. Within minutes the death mask melted away. Life flowed back into completely flabby muscles. A patient and a doctor smiled at one another, and maybe both of them said a little prayer, for all I know. Out of this episode has come treatment and understanding of this strange disease of metabolic error. Either an insufficient amount of acetlycholine is liberated at the junction of the nerve endings and muscle fibres in this condition, or some substance is present which blocks the action of the acetylcholine. Treatment consists in adding acetylcholine esterase inhibitors. The three most effective drugs available for this job today are neostigmine, Mestinon and Mytelase. They do not cure, but they are most happy crutches.

Mussolini, like all dictators, had an odd sense of moral values. He could torture and kill human beings with the greatest of ease, but he could not countenance the killing of animals in a slaughterhouse. This prompted his strange edict that all the cattle, hogs and sheep in Italian abattoirs had to be electrocuted before butchering. Ugo Cerletti, the professor of psychiatry at Rome, heard that these animals often had convulsions before their death. He went to see for himself, and, sure enough, it was so. With one of his residents, Lucio Bini, he tried it out on cats. They applied electrodes to the cats' heads and found that if they were careful about the currents they used, they could produce consistent convulsions without killing the cats. Out of this fortuitous observation based on Mussolini's maudlin sentimentality have come two revolutions in the treatment of nervous disorders. The first deals with epilepsy and the second with the psychoses.

Cerletti and Bini and their cats caught the fancy of Houston Merritt and Tracy Putnam 4,000 miles away in Boston. They wired up some cats and found the same thing. They found, too, that a given cat had a consistent electrical threshold for fit production. This was the first time that convulsions could be produced experimentally and at will with a stimulus which could be quantitated. They determined the electrical fit threshold for a group of cats and then undertook to find out whether any of the drugs then in use in the treatment of epilepsy could alter this threshold. They found that the bromides had little or no effect. Of all the barbiturates, phenobarbital proved to be the best in inhibiting the electrically-induced fits in their cats. Then they sat down and did some simple but solid thinking. Maybe it was the phenyl part and not the barbituric acid part of this ester which did the work. Then they went to the chemical bench and tested 700 phenolic and related compounds for their fit-inhibiting properties in the wired-up cats. Many compounds were somewhat effective, but three were outstanding. They were acetphenone, benzphenone and the sodium salt of diphenyl hydantoin. They took these three compounds into the clinic. They abandoned the first two because they were too toxic for the human. They caught the brass ring with the third, and this was the way Dilantin was born.

The pharmacologists now have a new tool. Dilantin is good, and certainly better than anything which preceded it, but it is not always effective. Nobody could hazard a guess about the number of compounds which have been tested for

their anticonvulsant properties since the Cerletti-Bini-Merritt-Putnam trick saw the light of day in 1934. The testing technique has been refined and applied in the case of literally thousands of compounds. Out of this effort have come Mesantoin, Mysoline, Tridione, Paradione, Gemonil, Phenurone, Milontin, Celontin and others in addition to Dilantin. There are reputed to be 1,500,000 persons afflicted with epilepsy in the United States today. These drugs, with their several indications and limitations, are now able to achieve complete or almost complete control of the convulsive seizures in some 80 per cent of these patients. Better than a million souls have been or can be saved in our country by these anticonvulsants. This is no mean accomplishment. The pharmacologists and the neurologists are constantly searching for better ones.

Migraine is usually brought under discussion whenever epilepsy is mentioned. They are both episodic disorders of the nervous system and both conditions may be present in the same patient at the same time, but there the connection ends. A brilliant series of physiologic studies on migraine in recent years has just about completely proved that this type of headache is ushered in by a sudden constriction of arteries in the cranium and scalp followed by a later dilatation of these same arteries. The pain is produced by the stretching of the blood vessels when they dilate. A great deal of relief has been brought to the legions of migraine patients by the use of ergot derivatives plus improved general management.

And now I came to a short consideration of the newer therapeutic weapons in psychiatry. The brilliant Polish physician, Lazlo von Meduna, began to use various agents to produce convulsions in psychotic patients in the early 1930's. He tried many substances. Metrazol proved to be the best. Six to twelve Metrazol-induced convulsions could often restore the mood and the desire to live in suicidally-depressed patients. Cerletti and Bini, after their experience with Mussolini's slaughterhouse animals and their laboratory cats, and mindful of Meduna's finding that convulsions seemed to benefit states of psychomotor retardation, screwed up their courage one day and applied an electric current to the head of a sailor who had been lying in one of their wards for weeks, completely mute and stuporous. He came to himself and talked, and thus electro-convulsive treatment had its beginning. Millions of these treatments have been given in the last twenty years. The method of their administration has been modified and improved many times. It would be impossible to estimate how many lives have been saved by this technique, and how many hospital stays have been shortened, but I know that the figures would be prodigious. The contention has been made that there has been an absolute fall in the number of suicides as the result of electroconvulsive therapy, and I am quick to believe it. The resurrection of a tortured brain steeped in the blackness of melancholia or lashing itself to pieces in the wildness of acute mania after these electrically-induced fits is one of the most awe-inspiring things in medicine today. How does it work? Nobody knows. Not long ago a physician compiled a list of fifty theories about the mode of action of this treatment, and he concluded that none of them could be validated. Despite its efficacy in well-selected cases, nobody seems to like electroshock therapy. There is something assaultive and violent about it, try as we do to improve the giving of it. We must admit, however, that it remains one of the most efficient weapons in the therapeutic arsenal of psychiatry today.

Recently new tools have come forth in the treatment of depressive states. Two new analeptic drugs, Meratran and Ritalin, help the mild ones but not the severe ones. A third drug is more potent. Some years ago when I.N.H. was introduced in the treatment of tuberculosis, alert clinicians noted that it not only had a bacteriostatic action against the tubercle bacillus, but that it also improved the mood of the patients. I.N.H. was given to depressed patients but it did not lift their mood adequately. Then people began to try some of its analogues. Saunders and Kline gave the isopropyl ester of I.N.H. to a group of regressed patients on the back wards of Rockland State Hospital in New York, and saw them begin to come to life after a few weeks of treatment. This medication, under the name of Marsilid, has now come into general use. Its action is somewhat slow in that effects are usually not seen until one to three weeks after it is begun, but then in about 60 per cent of cases one sees the same awe-inspiring resurgence of the spirit and the recapture of the zest for living in depressed patients that follow successful electroconvulsive treatment.

There is an attorney in my city whom I have known a long time. We went to college together.

He has been through four devastating attacks of melancholia. When he is in them he drinks heavily, is unable to sleep, neglects his work, feels that he is a burden on his family, and tries to resign from the law firm and to get his wife to divorce him. His mind is clouded and his spirit is troubled by an overpowering sense of his own uselessness. Recurring desires to commit suicide can only be washed away by heavy drafts of beer and whiskey. He has always responded to electroconvulsive therapy, but only after long effort. Recently he appeared at my office in "depression No. 5." Both of us groaned at the thought of the uphill road ahead to his recovery. Instead of starting him on a round of electroconvulsive treatments I gave him 50 mg. of Marsilid in the morning and at noon. A week later he bounced into the office, smiling. "Why didn't you give me those yellow tablets ten years ago?" he asked. His response was the most rapid I have seen. He reported that he began to feel better on the third day, that he had stopped drinking, that he was beginning to see clients again, and that his sleep and appetite were restored. It is now eight weeks later. All evidence of melancholia is gone. Marsilid has side-reactions, and it does not work in 40 per cent of cases, but it is a welcome adjunct in the treatment of melancholia. It is an inhibitor of an enzyme called amine oxidase, and it may lead us to a better understanding of the mechanism of this strange but common disease.

The tranquilizing drugs, reserpine and the promazines (discussed elsewhere in this journal by Dr. Braceland) have had a great impact on the management of psychiatric patients. As you have read repeatedly, their introduction has coincided with the first leveling-off and down-trend in mental hospital bed occupancy in modern times. Their mode of action is not understood, but a few glimmers of the light of understanding are beginning to show in the darkness. They are of primary value in overactive, noisy, disturbed patients and of least value in the quiet regressed ones. They do not cure in most instances, but rather control symptoms. They have done a tremendous service in the treatment of schizophrenia and in the control of other states of psychotic excitement. The victory against schizophrenia, the disease which fills more hospitals than any other in the United States today, is far from complete. It is probably not a disease at all, but rather a reaction-pattern to a group of disturbances. Recent studies suggest that these are of biochemical origin in the main. Specific treatment will come when specific etiologies become clarified.

I have had experience with another of these drugs, called Frenquel. It is of value primarily in the acute deliria. It may be given both orally and intravenously, and the mind-clearing effect it can sometimes produce in delirium tremens and the postoperative acute confusional states is most heartening. Another group of these ataraxic drugs, as I have called them, is useful in the neuroses. Among them are Miltown and Equanil, Atarax and Ultran. As you well know, none of these compounds is the *therapeuticum magnum* and no pattern of predictability of their usefulness in a given patient has emerged, but they are welcome additions in the treatment of the large number of psychoneurotic patients we all see, whatever kind of practice we undertake.

Before I close I must review those areas of neurology and psychiatry where therapeutic weapons are wanting. Multiple sclerosis remains *terra incognita for us.* I sit on a board which doles out a half million dollars a year in grants to research workers in this field. Nothing yet has emerged. Sometimes I think that some unprejudiced young fellow with a naive and fresh point of view will stumble upon the answer to this riddle by accident, as has been the case so often before. The myopathies, the dystrophies and the neuropathies such as amyotrophic lateral sclerosis and Friedreich's attaxia are also beyond the reach of the therapist. The biochemists are very active in these fields and I have hope that they will come forth with new understanding and new treatment. Parkinsonism is still as hard to treat as it was when I was a student. Atropine-like drugs come and go, but the patients remain. The surgical procedure of chemopallidectomy, introduced by Irving Cooper in recent years, has brought grateful relief to some of my patients with Parkinsonism and I am advising this procedure in selected cases. As you know, a syndrome closely resembling Parkinson's disease can be produced by large doses of Thorazine and reserpine. This is the first time that such a disorder has been produced experimentally. I have the hope that this may tell us more about the pathophysiology of the disease and that improved treatment will follow.

There is very little which can be done for mental deficiency at the present time beyond curbing

some of the hyperkinetic behavior which usually accompanies it by applying tranquilizing drugs. Interesting facts are emerging concerning mentally retarded children. The knowledge that mental retardation is a whole group of diseases, many of them associated with metabolic error at some point in the brain's glucose-utilization mechanism, in some phase of lipid metabolism or in the metabolism of amino-acids is beginning to come out. Many of these conditions are now recognized. As this knowledge becomes enlarged and systematized, the hope for effective treatment increases.

Vascular accidents in the brain constitute a large problem in modern medicine. Some of my colleagues are enthusiastic about the use of agents like dicoumaril and heparin in these conditions, while others are less so. The final answer, of course, will come with the understanding of the cause and treatment of arterial disease and of hypertension. The senile brain states are fast becoming the largest single problem in institutional psychiatry. In 1920, 17 per cent of new patients admitted to state hospitals entered with a diagnosis of senile psychosis. By 1940 this figure had risen to 38 per cent and it is undoubtedly higher now. Recent studies seem to clear up one bit of fog. There is no one-to-one relationship between senile dementia and cerebral arteriosclerosis. Some demented old folks have soft young arteries in their brains, and some old folks with pipe-stem arteries throughout their brains are sharp as tacks. It is probably good to get this straight. It impels us to look beyond the cerebral circulation for the answer to this challenging geriatric problem.

There is much more which could be said. The nervous system is the most reactive of the tissues and not the silent unresponsive bone-enclosed mystery it used to be. It has shared in the new therapeutics of our times as fully as any of the body systems, but it still keeps most of its riddles locked within itself. My advice to you, if you are interested in this field, is to arrange to live a while longer. I am sure that more is coming.

2314 Auburn Avenue
Cincinnati 19, Ohio

THE PHRENOTROPIC DRUGS IN MENTAL ILLNESS

(Continued from Page 1701)

at having at our disposition drugs which have a powerful influence on disordered human behavior, let us not forget that the use of drugs is as old as the history of man and that the ancient physicians recognized some important phenomena of drug exhibition which we keep rediscovering: that their effects may be entirely fortuitous; that the same drug in different patients, or in the same patient at different times, may have similar and even contrary effects; that, moreover, substances with apparently opposite properties may bring about the same results. Michael Balint of London has pointed out that by far the most frequently used drug in general practice is the doctor himself and that it is a drug without pharmacology, without directions as to dosage, form and frequency of administration, without allergic responses or undesirable side effects. Yet, this is an extremely powerful drug and those who use it relieve more suffering than has yet been recorded for the most powerful drug in the pharmacopeia.

Yet, with all of this, we are entitled to feel that progress in pharmaceutical psychiatry is actual and real and that by the co-operative efforts of pharmacologists, biochemists, neurophysiologists and psychiatrists we have been brought close to a major break-through in the treatment of some of the most recalcitrant of psychiatric disorders.

200 Retreat Avenue
Hartford 2, Connecticut

The Misuse of Sympathy

By Sidney Bolter, M.D.

Northville, Michigan

A WIDELY-HELD misconception about psychiatry is that sympathy is the tool most frequently used to treat the emotionally ill. Furthermore, the layman is often of the opinion that the success of the general physician in treating all of his sick patients is due, primarily, to the use of this tool. Unfortunately, sympathy is not a scientific instrument. It cannot be dispensed in any measurable amount, it cannot kill bacteria or limit their growth, it cannot remove or alter the function of diseased organs, it cannot immunize against ill health, and above all, it cannot foster psychological growth and maturation. Under the psychiatric microscope, sympathy can only be viewed as being saprophytic, feeding on emotional decay rather than on growth.

Sympathy is defined in Webster's Dictionary as "an affinity, association, or relationship between things so that whatever affects one similarly affects the other or others; mutual or reciprocal susceptibility; hence, a reaction or response brought about by such relationships." According to this definition, it appears that sympathy is a rather special type of identification in which one individual blends his feelings with another, beyond the boundaries of his own separateness from that individual. As Noyes[1] puts it, "A feeling of a sort of affective oneness with a second person." This no longer makes it possible for the sympathizer to distinguish the identity of those feelings as belonging to himself as opposed to belonging to those with whom he has sympathized. In other words, the sympathizer finds himself sympathizing with himself. Applied to the practice of medicine, this principle tells us that we sympathize with ourselves, rather than with the patients, when we are involved in this kind of feeling problem. This concept is of great practical importance when we attempt to understand our behavior in dealing with sick patients. It not only applies to the emotionally ill patient, but to the patient suffering from any disruption of normal health.

Dr. Bolter is Psychiatric Education Director, Northville State Hospital, Northville, Michigan.

Let us take first, for example, the care and treatment of the seriously ill mental patient; the schizophrenic. For centuries, these psychotic people were treated by methods which we today would call inhumane and cruel. It might be noted, however, that some of these methods retained their popularity for long periods of time and, although we would like to think that this popularity was due to the barbarism of the general population or the guilt feelings involved in their attitudes toward the mentally ill, we should force ourselves to consider the possibility that these methods remained in effect because they did actually cause improvement in some patients. Today, one certainly would not advocate putting patients in stocks, flogging them, or subjecting them to various horrible ordeals. Today, rather, we go to the other extreme. Today, the literature is full of statements concerning the idea that our patients must be loved in order to get well.

Someone has the thought that schizophrenic patients are schizophrenic solely because they were not loved. This is an unproven and unwarranted assumption that has ridden the crest of acceptance for quite some time. Perhaps it has been because our concept of love had to do with the aforementioned concept of sympathy.

Those who would "love that patient" advocate what they feel is an attempt to understand the patient. Within that attempt, however, we see many practices which cannot be justified by a knowledge of dynamic psychiatry. We see patients allowed to act out their instinctual impulses at will and we see patients who are allowed to lie around hospital wards because they need "rest." We see patients allowed to go on week-end passes or on leaves of absence, because it is felt that they should have a chance to get away from the hospital. We see patients allowed to go on rides with their relatives because the day is sunny and we ourselves would like to go for a ride. We see a great deal of forgetting that schizophrenic illness exists seven days a week, twenty-four hours a day, and that although everything the schizophrenic

patient does, thinks, or feels during that time is of importance, he must be considered from the point of view of his illness and not of our own desires.

We too often regard the schizophrenic patient in the same way as we regard ourselves. We make statements such as "After all there is a thin dividing line between neurosis and psychosis," or "There but for the grace of God go I," or "If I were that patient I would certainly like such or so and so." We forget that we are not schizophrenic at the time of making that statement, and that we cannot consider dealing with a psychotic patient on the basis of what we would like or on the basis of what we think we would like if we were psychotic. When we believe this way as physicians (and as other people working in the fields of mental health), we reveal our basic fear of the disease and we reveal a tremendous amount of possessiveness and emotional engulfment that, at least in a few cases, has had something to do with the origin of the disease.

The author believes that there is agreement that schizophrenic patients have an ego defect. That is, their mechanism of dealing with their external and internal perceptions and bringing them into line with reality by controlling their impulses and accurately perceiving their environment, is somewhat defective. There are as many ideas as to why this ego is defective as there are authors and it is not the purpose of this paper to deal with the theories regarding schizophrenia. This ego of which we so glibly speak, must be recognized as having gone through phases of development. It takes time for any human being to learn to perceive reality accurately. It takes time for that same human being to build a set of controls which will enable him to live within that reality. There are various processes which psychiatrists feel are crucial in the development and growth of this very important part of the personality structure. One does not encourage growth and one does not guide the development of an individual by emphasis upon defect; to the contrary, the emphasis must be on strength. The person who uses sympathy as a tool, be he a physician or just a friend of the patient, is only reinforcing defect and calling attention to the patient's infantile desires and feelings. To encourage a patient to use his full potential, to encourage him to be able to control himself—is accomplished without the use of sympathy and smothering love.

The refusal to deal with psychotic material and the insistence upon dealing with day-to-day reality, fosters a feeling of confidence in the patient and makes him more willing to attempt to reinstitute whatever controls have been at least partially successful in the past. The application, then, of his idea would involve not allowing the patient to act in such a way as to show himself to be psychotic but rather to accept only non-psychotic behavior from him. When a patient's impulses appear to be getting out of control, for example, becoming hyperactive, agitated, angry, threatening, swearing, or throwing things, the patient must be helped to feel that there is a substitute for his temporary lack of internal control by external control from the environment. Many hospitals use therapeutic seclusion or certain forms of hydro-therapy to accomplish this. This, of course, is the most obvious kind of loss of control; however, when a patient consistently makes lewd remarks to the nurse on the ward, this is often countered with an attempt by the nurse to sit down, with a sympathetic attitude, and discuss the whys and wherefores of his thinking. It is far better to warn the patient that this will not be tolerated and that this is not the way he would behave outside the hospital. If this warning does not suffice, then some particular privilege is taken away, which, if carried to the ultimate, would mean the privilege of being with other people: that is, he would be placed in therapeutic seclusion. This is just an example of a reality-oriented approach which promotes growth toward better internal controls.

One does not have to dwell upon serious mental illness to bring to light the deficiencies of the use of sympathy as a therapeutic tool. Every practitioner of medicine knows that there are a certain number of patients who must be dealt with firmly or they will act out their completely insatiable need for affection and attention. Giving in to this need only increases its force. Every doctor has seen the patient who needs a "shoulder to cry on." However, when this shoulder becomes a prop, which is repeatedly used in place of attacking one's problems, the shoulder has no therapeutic effect. The cathartic effect of "getting something off your chest" is certainly important but has been highly overrated. After the good cry, the good catharsis, one must get down to the basic problems and they must be looked at squarely. This patient gains strength from the doctor's strength. If the

doctor shows obvious fear, apprehension, sadness, gloom, reticence, indecision; if the doctor always tells the patient that the patient is right, if he always sides with the patient's sick self against his healthy self, he does not promote growth and understanding. This does not imply that the physician does not have feelings but when he begins to sympathize he begins to feel sorry for himself as though he were in the patient situation and he can no longer be of much therapeutic value. He then cannot help the patient orient himself to the reality of his life situation.

It is probable that the whole topic of sympathy is greatly misunderstood when one tries to understand the psychiatrist's function with any sick person. Although the psychiatrist lends a willing ear to listen to the patient's difficulties—the patient's feelings, attitudes, his life history—he does not necessarily agree with the patient. His aim is to get the patient to grow up, and take a good mature look at himself. His aim is to increase the patient's objectivity concerning his feelings and his behavior. In the case of many fringe-practitioners of various mental disciplines, one can easily see that their popularity comes not from their therapeutic approach but from their using a technique which allows the patient to leave the office hearing exactly what he wanted to hear when he entered that office. This makes the therapist very popular with that patient until the patient finds that this does not encourage him to get well, and that this does not stimulate emotional growth.

The good psychiatrist devotes his attention, after a careful appraisal of the patient's strength and weaknesses, to getting the patient to look objectively at those assets and liabilities and to get him to study himself fairly and relentlessly with the psychiatrists help as a guide. This is not a pleasant task and it is not one that involves the use of sympathy. The general practitioner of medicine can follow the same pattern, and although his goals are not to probe deeply into the personality conflicts of his patient, he can conscientiously refrain from sympathy and pity. He can put forth the attitude that he knows the patient is sick, and that he will do everything that he can to help him get well but that in all illness the patient must co-operate and be a party to that getting-well process. When the physician meets patients with emotional problems, whether or not they have concomitant physical reactions, he can help them to face frankly their life situation and consistently point out to them where they are being unrealistic. He must learn to take the stand that all people are capable of healthful adaptations to life, both emotionally and physically, and he must get these patients to concentrate on the healthful aspects of themselves rather than on the pathology. This is not a cruel inhumane approach, nor is it a technically sympathetic approach. It is an approach which recognizes that people are stronger than they think they are, that they have more capacity than they ever use, and that the problems of life demand a realistic approach—be there a transient or chronic physical illness or be there more primarily emotional states.

It is difficult to avoid the application of this reality-oriented therapeutic approach to emotional disturbances of a psycho-social nature. The author here is referring to that large group of people who seem unable, or more correctly unwilling, to keep to the rules that society has laid down to create a civilized, law-abiding community for the protection of the individual as well as the group. In this category must be placed those patients for whom numerous labels have been concocted, such as "psychopathic personality," "constitutional psychopathic inferior," "sociopathic personality," "antisocial personality," and so forth. In this "enlightened" era of the misapplication of psychiatric knowledge, the pendulum of opinion has been swinging from severely punitive legal measures to a very permissive, sympathetic line which allows teenagers to become recidivists and repeaters to get a third, fourth or fifth chance.

The concept of criminal responsibility is one that is beyond the scope of this discussion but one cannot help doubting the efficacy of the use of sympathy in the control of these problem people. It is this author's opinion that most of these people have the capacity to control themselves and live within the same rules as the rest of the population but do not join this capacity with a certain willingness or motivation to be law-abiding citizens. It does not help either the individual or society to be unrealistic in the handling of these cases. The lawyer or judge who becomes quite skeptical of psychiatric progress has usually been misadvised by so-called specialists or has, himself, misapplied psychiatric principles and has not correctly introduced the reality concept into the management of these types of problems. Too often, people who break the law are able to get themselves adjudged

irresponsible, or more accurately not responsible, for their actions and are sent to mental hospitals where very little can be done for them. They have little motivation and they handle their problems in the mental hospital in much the same manner as they handled their problems outside the hospital. However, with the "benefit" of a mental hospitalization on their record, they can always return to this excuse for their actions. The result of the use of sympathy in these kinds of cases is the nurturing of the basic lack of motivation and the prolongation of the basic unwillingness to live according to the rules.

This is not an attempt to advocate a return to harsh and unusual punishments, nor to deny psychological mechanisms in the behavior of criminal elements in our population. The author has no sweeping generalization which answers the difficult problem of the conscienceless person, but a recognition of the lack of conscience in these people is mandatory to our adequate handling of their cases and, just because we feel sorry about what they have done, we cannot logically assume that they feel sorry. We must constantly search for methods of inducing motivation in these socially-disturbed individuals and of fostering the growth of a conscience; but in too many instances it is difficult to see how a period of probation or a commitment to a mental hospital will serve either of the afore-mentioned purposes.

This discussion is fundamentally an appeal for the development of a firm realistic attitude toward all types of ill health. The positive potential of people must be recognized and emphasized to them and every effort should be made to learn new ways of doing this. At the present time we have no sure methods of drastically changing basic personality patterns. Certainly, we have no short-term methods but if we allow ourselves to become involved with the use of sympathy as a therapeutic tool, we will not be able to help those who seek our aid in reaching maturity.

References

1. Noyes, Arthur P.: Modern Clinical Psychiatry. (Fourth Ed.) Phila.: W. B. Saunders Co., 1953.

AN HISTORIC DOCUMENT

AMA House of Delegates Action

For persons over sixty-five years of age with reduced incomes and very modest resources, it is necessary immediately to develop further the voluntary health insurance or prepayment plans in a way that would be acceptable both to the recipients and the medical profession. The medical profession must continue to assert its leadership and responsibility for assuring adequate medical care for this group of our citizens.

Therefore, the Council on Medical Service recommends to the House of Delegates the adoption of the following proposal: That the American Medical Association, the constituent and component medical societies, as well as physicians everywhere, expedite the development of an effective voluntary health insurance or prepayment program for the group over sixty-five with modest resources or low family income; that physicians agree to accept a level of compensation for medical services rendered to this group, which will permit the development of such insurance and prepayment plan at a reduced premium rate.

This recommendation has been studied and restudied by the Board of Trustees and has received its wholehearted endorsement.

Your reference committee recommends that in order to effect the immediate implementation of such a program, copies of this report be distributed to medical society approved plans, including Blue Shield and private insurance programs, requesting their co-operation. (Adopted unanimously.)

Use of Ectylurea (Nostyn^{R}) in Mentally Retarded Patients

Preliminary Report of Effects on Seizures and Spasticity

By Marvin D. Utley, M.D.
Lapeer, Michigan

INSTITUTIONS for the mentally retarded usually have combined spastic-seizure cases presenting difficulties in management. Many of these patients show evidence of tension and anxiety, the exacerbation of which may possibly trigger spastic-seizure episodes. The purpose of this investigation was to ascertain whether or not an alleviation of, or reduction in, anxiety and tension would reduce the severity and frequency of spasticity and seizures. To accomplish this, a drug was required which would curtail anxiety and tension without having anticonvulsant and muscle-relaxant properties. Because the literature[1-8] indicated that ectylurea (Nostyn®)* fulfilled these requirements and the drug has an unusually high degree of safety in clinical use, it was chosen for this investigation. Twenty-two mentally retarded patients were selected, twelve of whom were severe seizure-spastic cases, five of whom were active seizure cases, and five of whom were spastic only. The average age of the group was twenty-four years, the youngest being ten and the oldest being fifty-two. The I. Q. of the group averaged 10 and varied from 1 to a high of 28. All of these cases had a high degree of disability with the predominant diagnosis of congenital brain defect with spasticity.

Electroencephalogram findings† in the majority of cases indicated gross cerebral dysrhythmia consistent with epilepsy and mental deterioration. The over-all physical condition of the group was considered fair or poor. All patients were custodial, the majority being bedfast.

From the Lapeer State Home and Training School, Lapeer, Michigan.

Presented at the Spring Session of the Michigan Association of State Hospital and Clinic Physicians, May 23, 1958, at the Lapeer State Home and Training School.

*Nostyn® (ectylurea-Ames) is a 2-ethyl-cis-crotonylurea and was furnished for this study by the Ames Company, Inc., Elkhart, Indiana.

†Courtesy Thomas McManus, Jr., EEG Department.

Procedure

Ectylurea was administered to each patient daily for two months. The approximate daily dosage, tempered somewhat by the comparative fragile weight-age ratio of the patients involved, was 15 mg./lb./day. The daily dosage ranged from 450 to 1500 mg./day and was administered in divided oral doses three or four times daily.

Twelve of the twenty-two patients had been receiving tranquilizers. Ten had been given chlorpromazine at low dosage levels averaging 150 mg. per day and two had been taking reserpine, 1 mg. daily. It was considered desirable to continue the tranquilizers in these patients to ascertain if any additive effects could be achieved with ectylurea. Most of the seizure and seizure-spastic cases had been receiving diphenylhydantoin sodium, averaging 1½ grains three times daily; approximately one-half of these patients also were receiving phenobarbital, ½ grain four times daily. Neither diphenylhydantoin sodium nor phenobarbital, in these cases, had prevented seizures, but neither drug was discontinued during the investigation.

Laboratory studies, consisting of blood urea nitrogens, thymol turbidities, urinalyses, and complete blood counts were run on each patient before and after the ectylurea regimen.

In order to make the study as reliable as possible, a blind technique was followed. An equal number of spastics who were not given ectylurea were evaluated simultaneously by the same examiners who had no knowledge of which patients were serving as controls. All patients were evaluated for the degree of spasticity several days before the beginning of the study. To minimize clinical error, a second evaluation was made the day before initiating ectylurea. The second evaluations in each instance agreed essentially with the first. This indicated that the clinical or subjective error was minimal and probably would not be

a significant factor in the post-medication evaluations.

All cases of spasticity were graded 1 to 4 plus, according to severity. A rating of 1 connoted minimal spasticity, whereas a 4 plus rating indicated maximum spasticity with contractures usually so severe as to preclude movement. Each evaluation of spasticity was based upon an examination of all four extremities.

Findings

After the daily administration of ectylurea for two months, eleven of the seventeen spastics evaluated (65 per cent) were considered to be less spastic. Three were evaluated as being the same as before receiving ectylurea and three were graded as being more spastic. Individual grades of spasticity appear in Table I.

TABLE I. SPASTICITY EVALUATION

Case No.	Upper Extremities		Lower Extremities		Per Cent Improvement
	Before ℞	After ℞	Before ℞	After ℞	
1	3	2+	4	3	42
2	1	−1	2	1+	28
3	4	4	3	3	0
4	4	3+	3	4	−14
5	3+	3	3+	2+	42
*6	4	3	3	3+	14
7	3	1+	4	3+	56
8	2+	2+	4	3+	14
*9	2	2+	3	2	14
10	2+	2+	3	3	0
11	3	2+	3+	3	28
*12	2	1	3	3+	14
13	2+	2+	3	3+	−14
14	4	3+	2+	2+	14
*15	1	1	2+	1+	28
*16	3+	3+	4	4	0
17	1	1+	3	3+	−28

*Spastic patients who were not seizure cases.

In the control group at the conclusion of the study, a slight improvement was noted in six out of the eighteen controls (33 per cent). The other twelve control patients were rated as being the same as in the two previous evaluations.

The average improvement for the whole group was 14 per cent. Since, in none of the patients given ectylurea could the improvement be regarded as great but in all cases was either slight or moderate, it is questionable whether this improvement is significant, but the superior response of the treated group as compared with the control group impressed us as being indicative of a response to ectylurea.

Nine of the group of twelve seizure-spastic cases had seizures during the four months of this study. See Table II. Three patients marked with an asterisk in Table II had no seizures during the investigative period. They were included in the group because they had had seizures shortly before the study began and were considered to be active cases. Although it is possible that their relief from seizures during the period of medication could be at least partially attributable to ectylurea, this cannot be definitely inferred.

TABLE II. EFFECT UPON SEIZURES

Case Number	Number of Seizures					
	Without Nostyn			With Nostyn		
	May	June	Total	July	August	Total
Seizure—spastic						
1	7	4	11	0	0	0
2	0	5	5	0	2	2
*3	0	0	0	0	0	0
4	3	2	5	2	4	6
5	0	4	4	1	0	1
6	0	0	0	3	1	4
7	2	1	3	0	1	1
8	0	1	1	1	0	1
*9	0	0	0	0	0	0
10	2	11	13	19	0	19
11	0	1	1	0	0	0
*12	0	0	0	0	0	0
Total			43			34
Seizure alone						
1	12	6	18	10	3	13
2	6	5	11	3	2	5
3	10	1	11	2	3	5
4	1	1	2	0	1	1
5	0	5	5	6	4	10
Total			47			34

*Patients who had no seizures during investigative period.

The total number of seizures of the seizure-spastic cases for the two months preceding the administration of ectylurea was forty-three; for the two months during which the patients were given ectylurea, the number fell to thirty-four, a decrease of 21 per cent. In the group of five seizure patients who were not spastic, a somewhat more active group, the total number of seizures fell from forty-seven to thirty-four, a decrease of 27 per cent. The total number of seizures for all patients during the two-month period decreased from ninety to sixty-eight, a decrease of 24 per cent.

No side effects attributable to ectylurea appeared during this investigation. Similarly all of the laboratory studies showed no evidence of drug toxicity.

Discussion

It would appear that a slightly greater improvement was obtained in the seizure group compared with the combined spastic-seizure group. This would seem logical since there was also concomitant improvement in the degree of spasticity of the latter group, which in itself may have been a

more primary manifestation of the release of anxiety engendered by their dual disability.

Although ectylurea possesses no anticonvulsant properties as demonstrated by thorough pharmacologic studies,[4,7] this study indicated a moderate degree of improvement when ectylurea was added to the routine anticonvulsant regimen in these mentally retarded patients having seizures. An explanation for this may lie in the action of the drug in relieving anxieties and tensions in these especially selected cases.

While the degree of improvement noted in both spastic and seizure patients when ectylurea was added to the regimen was not dramatic or evident in all cases, it is considered that the results were sufficiently favorable to warrant further study on the alleviation of tension and anxiety with ectylurea in patients afflicted with spasticity and/or seizures.

Conclusions

1. Ectylurea (Nostyn®) was administered daily to twenty-two mentally retarded patients with seizures and/or spasticity exhibiting tension and anxiety. A similar group served as controls.

2. The over-all improvement in spasticity was 14 per cent and the reduction in seizures 24 per cent.

3. No adverse effects due to ectylurea were encountered.

4. It is suggested that tension and anxiety may trigger spastic and seizure episodes and that by the use of a drug specific for the alleviation of tension and anxiety, the incidence of these episodes may be reduced.

5. The data from this study indicates that the control of anxiety and tension in spastic and/or seizure cases may be helpful in some instances. However, many more clinical studies must be carried out before a true evaluation of this regimen can be made.

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VETERINARY MEDICINE AND FOOD

The University of Michigan School of Public Health recently conducted a four-day Institute which attracted nearly 200 veterinarians, public health experts and medical specialists from all over the United States.

Full use of worldwide animal food resources is the best answer to the problems brought about by man's explosive increase in population, said the medical director of the Louisiana State Department of Public Welfare.

J. D. Martin, M.D., told the nation's first Institute on Veterinary Public Health Practice that one area of four million square miles in central Africa potentially could supply enough meat for most of Europe, Africa and Asia. But because of trypanosomiasis—deadly sleeping sickness—which infests the region, the area remains almost totally undeveloped.

Dr. Martin offered this as a major challenge to veterinarians and public health specialists working together for the benefit of all mankind. The situation could be corrected if the world's technical knowledge, skills and financial resources were integrated in a continuing effort to control animal diseases and to make usable millions of acres of grazing land now in the grip of these diseases.

Public Relations and the Patient

By William J. Butler, M.D.
Tucson, Arizona

THIS summer, while in Rochester, I asked Dr. Gershom J. Thompson what sort of an address he gave when he was president of this section several years ago. He replied that he was too young to philosophize so he gave a scientific paper. This essay will be an attempt at a little philosophizing and pontificating which will certainly date me. Nothing which will be said should be construed as being critical of urology, urologists, or the profession in general since I have the greatest affection and respect for all three.

Each year we have superb scientific programs and learn all about the various diseases and operations. For once I thought it might be interesting to consider the patient—the fellow who has the disease and the operations and concerning whom these scientific papers are all about. There is an old bromide to the effect that it is just as important to know what kind of a patient has the disease as it is to know what kind of a disease the patient has. This means that we should consider him as a patient and not as a case. What is the patient of 1955 like and what does he think about us? Furthermore, what does he think about the status of medical economics and about government medicine? The patient is the king and the key to what form medical practice will take ten or twenty years from now.

In this hydrogen age, the whole world seems to be sick and peoples everywhere suffer from fears and frustrations. They fear mass destruction and are pretty sure that they can do nothing to prevent it. In addition, they have the mad pace of our current civilization and their economic and social troubles always with them. There is a great deal of evidence that they are vaguely uneasy about their relations with the medical profession. The leaders in our profession state flatly that our public relations are not good and that they are urgently in need of improvement. They also believe that the individual doctor in his office is the one who must alter all this. The American Medical Association in 1954 listed as its number one goal in its public relations program, the proposal to concentrate on spreading the public relations concept more widely throughout the profession.

Dr. E. J. McCormick, president of the American Medical Association in 1953 stated "Our relations with the public are not good. Good public opinion cannot be bought. It must be earned through exemplary conduct and genuine service in the public interest. Doctors must know more of the public thinking regarding fees and the patient-physician relationship if we are to continue as free scientists and practitioners." Our own Dr. Harlan English, whom I discovered is an authority on this subject, stated at an American Medical Association public relations conference in 1952, "The medical education system, as it is geared today, is turning out graduates untutored in the art of medicine and totally ignorant of the social and economic structure in which they must serve. If this training continues unchanged, each new crop of M.D.'s will further complicate all physicians' public relations problems."

The 1955 model of patient is a different individual than the 1935 model. The later model is a better educated person and much better informed about medical matters because of medical columnists, magazine articles, books, radio, and television. If he watches "Medic" on television he may even know how to operate. The gripes twenty years ago were that the other fellow did not cure him or at least not fast enough. The gripes of today are different. He tells you that the other fellow did not take any interest in him, was completely impersonal, hurried him through, told him there was nothing wrong with him, did not explain things to him or used medical jargon, and charged him too much. In brief, he looks upon us as scientists and mechanics and not as physicians in the true sense of the word. He would like to have sympathy and understanding in addition to the magic medicines and spectacular techniques; in other words, to be considered as more

Presidential address, North Central Section of the American Urological Association, Chicago, Illinois, September 28 to October 1, 1955.

Dr. Butler formerly practiced in Grand Rapids, Michigan.

important than his disease. Dr. Joseph Collins, who had a great deal of experience as a patient, has written, "It is only human nature for the man who deals daily with bodily deformities and mental shortcomings to grow superior to his world. If he happens to be a big vigorous man himself, this sense of personal fitness easily breeds the arrogance, bored tolerance, facile condescension, and autocratic dogmatism with which physicians are often charged."

There are many new phenomena on the medical horizon testifying to the uneasiness and dissatisfaction of today's patient. The state societies all have public relations committees and probably a majority of the county societies. In 1949, the American Medical Association approved and urged the formation of grievance committees to hear and justly settle misunderstandings between doctors and patients, and now all of the states and 700 county societies have them. As Elmer Hess has pointed out, however, their effectiveness has been hampered by the fact that their existence has not been sufficiently publicized. He states that in Erie County, Pennsylvania, the complaints were increased tenfold by advertising and he believes the committee thereby did ten times as much good. However most societies have found that publicity has not increased the number of complaints substantially.

A recent survey indicated that 40 per cent of all county societies now have emergency call services. There may not be a shortage of doctors but there certainly is at night. I can remember rooming with two budding general practitioners in the early twenties who slept all day and made their living at night. The continued high level of prosperity over the past fifteen years must be the most important factor. In my area it only takes six to twelve months to get out of the night call class. The analogy of the hungry prize fighter is apropos. Of course the statistics of these committees show that many of the night calls are really unnecessary. Still I think our continued prosperity is related to other of our public relations problems and we see the same thing in many service occupations with whom we ourselves have to deal. Did you ever try to get a real plumber at night or on Saturday or Sunday? Recently I read a gag to the effect that a specialist is one who has trained his patients to become ill only during his office hours.

The amazing increase in malpractice suits and the concomitant spectacular rise in malpractice insurance premiums is surely a paradox with the patients generally more prosperous than they ever were before. It too suggests that something must be wrong with the patient-physician relationship. Evidently the doctor of the past was sued less frequently than the current scientific ones. If you know the patient and he is your friend the probability of a suit is almost nil. This is well illustrated by the experience in the smaller communities. Until recently one policy costing $20 to $30 was considered sufficient. The company solicited your business. Now many refuse new business and will only consider a tie-in sale. In New York, the New York State Medical Society group policy has jumped from $30 ten years ago to $226 for New York City and $119 out state. General premiums have increased about 35 per cent in the past year in the so-called good areas.

In addition to all this, we are having to participate in radio and television programs and public health forums and to maintain speakers' bureaus. This is all to the good since we are resuming our rightful role in the community as health educators and advisors.

From 1939 on, we were disturbed annually by the introduction of a compulsory health insurance bill into the congress. World War II kept everyone so busy that this was not pushed aggressively until 1949. But with the aid of excellent public relations experts, the American Medical Association through the National Education Campaign decisively beat off the immediate threat and we have been relaxed ever since.

The flush of victory coupled with the election of a basically friendly administration has lulled us into a false sense of security. Although the Murray-Wagner-Dingell approach is dead we are still in danger of governmental intervention by a more circuitous route. The numerous bills introduced at each session of congress require constant scrutiny and we should all keep well informed on proposed legislation. We must also do constructive things so that the public will cease to think of us as just "aginers."

How did our present situation come about? Since we are producing the best surgeons and medical scientists ever, how is it that we are on the defensive. A very large factor is the urbanization of the population with its constant mobility and the tremendous increase in specialization in the past twenty years. Some term it over-

specialization. We simply do not know our patients anymore.

Another very important factor, though, has been the rapid development of the scientific era of medicine. In 1935 we were still in the era of diagnosis, therapeutic nihilism, and clock-watching surgery. Urological practice offers excellent illustrations. Gonorrhea was still in the era of the rainbow treatment so aptly described by Dr. W. L. Sherman in 1936. The patient would be seen daily for weeks and one got well acquainted with him. Later he would turn up with a prostatitis or a stricture and there would be another round of office visits. The same was true of the woman with chronic pyelitis who would get endless pelvic lavages over a period of months before a cure was established. Now a cure is quickly possible without ever really getting acquainted with the patient.

The same is true of urological surgery. Early ambulation and the increasing percentage of transurethral resections has reduced the average hospital stay to about seven days from the previous two to four weeks or more. One hardly gets to know the patient before he is gone. When he comes to the office two weeks later it is very difficult to remember who he is. Of course better anesthesia, blood banks, and the control of infection with the new drugs are also responsible for the briefer period of hospitalization. Some doctors think that lesser doses of the art of medicine are necessary today but because of the briefer patient contact larger doses of the art than ever are really necessary to satisfy the public. We have to sell ourselves and our personalities faster and harder. A recent study showed that physicians spend 20 per cent of their time on patient education. Do you? It still takes time to practice urology.

The speed of the scientific revolution is well illustrated by some recent statistics on prescriptions. Over one million are filled daily and it has been estimated that about 85 per cent of these could not have been filled ten years ago. About 10,000 new drugs have been approved by the Federal Food and Drug Administration in the past fifteen years. The chemical industry employs 35,000 persons in research today as compared to 6,500 twenty years ago. Chemotherapy was pretty much dormant from the time of Ehrlich until the discovery and utilization of sulfanilamide which gave the chemists fresh inspiration.

The patients with mild neuroses are one of the most fertile sources of misunderstanding and dissatisfaction. Some of them have some degree of pathology and others none. They really resent being told that there is nothing wrong with them and of course if there was nothing wrong they would be somewhere else and not in your office. It has been stated that about 50 per cent of the patients coming to physicians today have troubles that are of psychosomatic origin. Since about 3 per cent of the doctors are psychiatrists, obviously it is impossible to pass them all on. I recently read a good story apropos of this about a patient who read about the 50 per cent who have psychosomatic ailments and decided to go first to a psychiatrist. He was given a good examination and then the psychiatrist informed him he could find nothing wrong and told him, "It must be in your body."

Dr. Walter Alvarez has written an excellent book on the neuroses which all of us could read with profit. He points out that such a book to be useful to all of us must be written by a non-psychiatrist in order to get away from the jargon of psychiatry. He quotes Will Mayo to the effect that all specialists should take care of their own neurotics. It is mainly a job of taking plenty of time and listening as Freud pointed out in his early research. Alvarez further states that too many physicians dislike the nervous patient and I think we all know that the surgical specialist of today is bored stiff unless he has a major surgical problem to deal with. Other patients are apt to get the quick brush-off.

It is simply a matter of liking all kinds of people and this would be a good test for admission to medical school. Since I got interested in this subject I have made it a point to spend five to fifteen minutes extra with the patient who is mildly neurotic and the expressions of gratitude and confidence are quite amazing. Alvarez points out that if you find that there is nothing wrong with the patient your job is not done but should be just beginning. Then too, we should remember that if the patient does have serious pathology the psychic effect of the disease on the patient may be as important as the disease itself. Patients go to the cultists mainly because they are friendly and will listen. They have nothing much else to sell them. We were pretty much in this position a few decades ago, except for our Bard-Parker therapy.

Many doctors think that medical education to-

day is too a considerable extent responsible for our dilemma. In his premedical work, the student takes a maximum of science and avoids the humanities like the plague so as to impress the entrance committee. Many authorities, on the other hand, think that he would be better off with more courses in psychology, sociology, economics, and the art of writing and speaking. Once in medical school, he becomes 100 per cent a scientist and if anybody suggests to him that medicine is still an art he thinks you are probably a little bit touched and balmy. The ultimate product is too likely to be a young physician who looks at all patients as cases and laboratory specimens.

And now let us consider what we are going to do about it. We should support the public relations programs on the national, state and county levels—the latter being the most important of all. But the attitude of the individual physician toward the patient is the cornerstone of good public relations. This means the issue will be decided in the office of each and every one of us. The patient is not buying a commodity but a service and furthermore not one which he has voluntarily decided upon but a service that he is stuck with.

The new patient is the important one. He arrives in an abnormal state of mind. He has to be put at ease and given plenty of time and patience in order to establish a rapport with him and help him solve his problem. He will be disgruntled if you hurry him, behave impersonally, and do not show plenty of interest in him. He desires a full and lucid explanation of things or he will depart saying, "He didn't tell me anything or at least anything that I could understand." Therefore we should all indulge in a little self-analysis in order to be sure we are giving the public that extra measure of service that they want, need, and deserve.

The handling of the surgical patient is probably the most difficult of all since most of them are mentally disturbed about their situation. The surgical patient demands plenty of reassurance, explanations, and attention to the many details of his physical comfort. It is possible to do a brilliant surgical job and still not have the patient go away singing your praises. The *Lancet* had an amusing piece sometime ago about the British physicians abandoning the bedside manner in favor of the bed-end manner on grand rounds so that no one speaks to the patient but the ward maid and the man with the newspapers. The "hello" and "goodbye" type of rounds leave the patients thoroughly dissatisfied and mad.

The American Medical Association is carrying on a campaign to bring all this to the attention of the individual physician. However, we are all adults with pretty much fixed personalities and emotional responses which are difficult to alter. The chief offenders usually are unable to recognize themselves as such. It is suggested that all of us had better put forth a little extra effort.

The voluntary prepayment plans are probably our greatest public relations asset and we should all get behind them enthusiastically. They are the medical economics of the future and are here to stay whether you like it or not. There are now 104 million people who have hospitalization coverage and eighty-nine million who have some type of surgical coverage. In the late thirties the profession pioneered this movement when the commercial companies said it could not be done. Then with the spectacular success of these plans the commercial companies got started about 1946 and have since outsold Blue Cross and Blue Shield. It is estimated that the commercial companies now have 52 per cent of hospital coverage and about 60 per cent of the surgical coverage. Enormous reserves are being accumulated and here you have the emergence of the third party into the patient-physician relationship over which the profession has no control.

The service benefit is fundamental to the voluntary prepayment plans but the commercial companies operate on an indemnity plan which gives inadequate medical security to the public and is subject to grave abuses. The indemnity plus the additional fee creates confusion and argument. This does not mean that a Blue Cross monopoly would be desirable since the competition is healthy and the service-benefit feature forces the commercial companies to constantly improve their policies. Incidentally, the premiums on health insurance now exceed three billion dollars annually.

However, our prepayment plans are in a critical phase today. Blue Cross is suffering from overutilization, excessive hospital stays, and admissions for diagnosis only. A survey at Blodgett Memorial Hospital in Grand Rapids showed that the percentage of faulty use was 39 per cent for the Blue Cross-Blue Shield plan, 29.2 per cent for the commercial companies, and only 13.5 per cent for the direct pay group. The figures on cases

admitted for diagnosis only are most interesting and are as follows: Blue Cross-Blue Shield 14.7 per cent, commercial companies 12.7 per cent and the direct pay group 1.6 per cent. This is an absurd situation. The overstays were twice the number in the Blue Cross-Blue Shield group as in the direct pay group. All this could be quickly corrected if the physicians would just realize that Blue Cross and Blue Shield are their own plans and that they have a big stake in their continued success if we are to avoid government intervention. Originally many of us accepted the plans as the lesser of two evils and were unenthusiastic but this attitude is outdated in 1955.

Blue Shield is in a more critical phase than Blue Cross because of our long continued prosperity. In Michigan, Blue Shield has had a remarkable success much of which has been due to the excellent leadership of Dr. R. L. Novy of Detroit, who has been president for thirteen years. As of January, 1955, Blue Shield covered 3,243,341 persons and Blue Cross covered 3,369,231 persons in Michigan. This shows what can be done by an efficient state society with the enthusiastic cooperation of the doctors. In a recent letter to all members of the Michigan State Medical Society, Dr. Novy pointed out that the original $2,500 policy was adequate in 1940 and provided service benefits to 80 per cent of the subscribers. By 1949, 80 per cent of the subscribers had incomes over $2,500. So this 80 per cent were charged the usual fee minus the Blue Shield credit. Therefore, a $5,000 policy was offered with higher professional fees. This again provided service benefits to 80 per cent of the subscribers. Now Dr. Novy is proposing a $6,000 policy since with steadily increasing incomes this would today include only 75 per cent of the people.

An excellent book by James E. Bryan on public relations in medical practice was published last year. He was formerly administrator of the New Jersey Blue Shield plan and has an excellent chapter in his book on voluntary payment plans. He believes that there is no certainty that the plans with their present limitations that the profession has placed upon them will prove sufficient to forestall eventual governmental intervention. He is further of the opinion, "that the vision, imagination and leadership that physicians will apply to the problem of developing a more satisfactory system for the distribution of their services will determine, possibly within the next decade, whether the doctor will continue to be master in his own house."

Therefore we should all make a study of this subject and be prepared to express sound opinions to the Blue Shield leadership. We can also speak well of the plans to patients and thereby be the most effective salesmen for them. Bryan feels sure that the majority of people will never be satisfied with any program that is not operated on a service-benefit basis. Inadequate coverage historically creates a demand for governmental intervention and the present set-up could easily be taken over.

Dr. Charles R. Henry of Little Rock, Arkansas, made a survey a few years ago as to what the public thought of us. He found that the second most frequent criticism of us was that we do not participate in the problems and projects of our communities. There may be some excuse for this in view of the time and concentration required to carry on a busy practice. It seems to be a recent development possibly due to the excessive work load of the war years. It seems to be a fair critiscism and undoubtedly we should all do something towards becoming more civic minded and improving our community relations.

There has been a sound attack on unethical practices by grievance committees of the American College of Surgeons and the American Medical Association. The American Medical Association recently completed a six-months study by a special committee which rendered a 15,000-word report. Fee-splitting, ghost surgery, unnecessary surgery, and excessive fees are gradually being effectively dealt with. In urology there is probably very little necessary surgery since the very exact preoperative diagnosis obviates this.

However, the field of prostatic surgery offers a controversial area. Dr. George C. Prather has done a very thoughtful piece on this in his Correspondence Club of last November. He asks what should be the criteria for elective prostatectomy. Should a given individual be advised to have surgery right now or should he be kept under observation? Since about 50 per cent of urological surgery is prostatic this is a very important problem. With the mortality rate around 1 per cent it seems to me fair enough that more elective prostatectomies should be done in 1955. There will be some difference of opinion between the older men

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Speech Techniques in Aphasia and Parkinsonism

By Shirley Gall Hoberman, B.A., M.A.,
Yonkers, New York

APHASIA indicates a "linguistic impairment due to an organic lesion of the brain."[1] The aphasic patient finds it difficult to deal with language symbols and, consequently, some or all functions involving the use of language are disturbed. The disturbance may be a receptive one involving the perception, evaluation and comprehension of language symbols, it may be an expressive one interfering with the production of language or, as more frequently occurs, it may be a mixed disturbance involving the reception and expression of language symbols.

Improvement in the aphasic patient is definitely correlated with physical recovery. Thus, nature helps to a certain extent. It has been noted quite frequently that language problems are associated more often with a severely involved upper extremity than with a lower. It is also apparent that the premorbid personality of the patient has a positive correlation with the prognosis for improvement. Unless there has been widespread destruction of cortical tissue, however, all patients are capable of some improvement.

Therapy should begin as soon as the patient is physically able. One of the most important reasons for early treatment is the prevention of the establishment of nonoral means of communication. We frequently find patients so aptly communicating with grunts, gestures, pointing or emotional outbursts that speech becomes nonessential to their well being. Early training is a morale builder. It usually consists only of simple conversations with the therapist but it brings the patient back immediately into a communicative world, with himself as a participant, however limited his linguistic abilities.

An evaluation of the patient's capabilities and limitations should precede any training program. Some record of his medical and psychological history and an evaluation of his premorbid personality adjustment should be available to the therapist. The therapist will proceed from there, with the aid of one or more language tests, to determine the extent of the language disability and the type of aphasia, if any, the patient presents.

Training is then begun with a primary goal of meeting the immediate needs of the patient. A hospitalized patient who can produce the words "doctor," "nurse," "bedpan," "water," "hot," "cold," "hungry" will be a happier, more comfortable patient.[1] Some patients can be taught there words easily and quickly by constant, daily repetition. Others will find it easier to write them and, by all means, they should be encouraged to do so. There are those who at first will be unable to speak or to write, and for these patients we have evolved the "conversation board." This is a fair-sized cardboard or wooden base with the above-mentioned words either printed or written on the board, or on cards or blocks of wood that are easily handled or pointed to by the patient. Quite frequently we are confronted with a patient who can neither speak, write nor recognize written or oral language, and, it is with such problems that the speech therapist must call into play all the varying and numerous techniques known for aphasia therapy.

For receptive disturbances it has been recommended that an approach emphasizing the association between visual and auditory stimulation be used. Large simple pictures of single objects are shown to the patient and help is given in identifying these objects. The therapist refers or points to the objects in real life, shows the printed word together with the object, names the object aloud and illustrates its use.[1]

Simple commands are spoken slowly and loudly by the therapist who illustrates, in pantomime or by other visual means, the appropriate activity—"open the door," "give me the book," "raise your hand," "pick up the pencil." The identification of specific spoken words can be done by pointing or underlining, as well as by naming. The patient is asked to answer, if he can, simple questions pu

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to him by the therapist: "How are you?" "What is today?" "Where is your nose?" "Where are your eyes?" The first two require some expressive ability but the last two can be answered by pointing.

The patient with alexia, who has difficulty in the evaluation of written or printed symbols, will require a visual approach. Simple sentences are written on a blackboard and acted out, first by the therapist, and then by the patient. In order to develop a sight vocabulary, cards should be prepared in a large, clear print with accompanying pictures to illustrate the word or sentence.

Expressive problems require a slightly different approach. It has been noted that low-level linguistic speech responses, such as serial speech (the days of the week, the alphabet, the numbers from one to ten), or automatic social gesture speech ("hi," "good morning," "good bye," etc.) either remain relatively intact or are the first language symbols that patients will recall with a minimal amount of therapy. Once a patient is successful with a word, the therapist should make constant use of it in differing situations so as to further language recall: the patient may have learned to count from one to ten but when five fingers are held up he cannot spontaneously produce the word "five." However, if he is instructed to start at "one" he can stop at "five" and, in time, may learn to say the sequence to himself and utter aloud only the number "five." This holds true when the patient is learning the days of the week, the months of the year, the alphabet or any familiar simple series.

Any or all means of stimulation are used in aphasia therapy. Sitting before a mirror with a patient and allowing the patient to watch the therapist's mouth as she produces the desired word provides a visual as well as an auditory stimulation. The patient sees the word being formed as he hears it. Holding the printed word just below the therapist's mouth is an added means of visual stimulation. Intensifying such stimulation by amplifying the therapist's voice and having the printed word in larger than normal letters will, in most instances, overcome the resistance many patients have to language stimuli of any kind.

Once a patient has learned a word the therapist will incorporate this word in sentences in different situations bombarding the patient's ears with languages related to the word. For example, the patient learns to produce the word "nurse." The therapist might then utter the sentence, "The *nurse* wears *white,*" or "The *nurse* brings *pills,*" introducing the word "white" or "pills" while reinforcing the initially learned word.

It has been found that abstract language is the most difficult for the majority of patients to recall and we, therefore, delay such training until the patient is relatively secure in a concrete language situation.

Dysarthria and apraxia are frequently associated with language disorders. Dysarthria, caused either by central or peripheral nerve damage, results in sluggish articulation, the omission or substitution of consonants in a word, sudden increases or decreases of voice volume, or, in some instances, completely incomprehensible speech. Dysarthria may exist where no aphasia is apparent or it may accompany aphasic disorders in varying degrees.

Apraxia is a disturbance in the ability to perform a specific motor activity. There may not be any evidence of paresis but the patient is unable to marshal or guide the specific motor groups involved. In language involvements apraxia is apparent when the patient is unable to place his tongue where he knows it should go for the production of a sound, even though the musculature and innervation of the tongue is not involved. This is verbal apraxia.

When a patient cannot handle a pencil or a pen for writing purposes, even though there is no evident pathology in that extremity, he is suffering from apractic agraphia. Apraxia may exist in varying forms—in the use of tools, musical instruments, paint brushes, etc. We are concerned with the verbal and agraphic apraxias. When a patient cannot control his articulatory mechanism therapy must, of necessity, start with training in this area. The patient should be instructed to imitate the movements of the therapist—while either facing her, or seated together before a large mirror. Simple, one syllable words are used, "Oh!" "Ah!" "I," and efforts are made to have the patient imitate movements of the therapist's lips and tongue. Nonsense syllables have been used and discarded. It has been found that they evoke no memory response in the patient and are difficult for him to interpret and produce. It is occasionally necessary for the therapist to manually assist the patient in the positioning of the articulators. If the patient cannot produce voiced sounds or cannot differentiate between the voiced and unvoiced, placing his hand on the therapist's

larynx will quite frequently develop an awareness of the vibration of the cords necessary for the production of such a sound.[1]

When apraxic agraphia is present we usually start the patient with a piece of chalk, demonstrating its use on a large blackboard. Starting with simple lines we proceed to printed letters and then to words. As soon as the patient has mastered the chalk we introduce a thick, soft crayon for use on a large sheet of paper and thence to pencils and pens.

Varying modes of stimuli are used in aphasia therapy. Visual, auditory, kinaesthetic and kinetic cues are used in every learning period and we thus surround and blast the patient with stimuli, in the hope that one or all will reach him in our attempts to overcome whatever resistance presents itself. When the patient has had some success with communication, we advise group training as a supplement to individual therapy sessions. Group participation helps to provide some means of socialization with others similarly afflicted. Other patients frequently provide motivation not available from a therapist or a physician. A patient in a group seems to have more courage and will respond more readily if he knows others within the group have as much difficulty as he with correct responses. A patient learns by listening to others, to assess failures and successes, and to evaluate them in terms of his own speech. One must avoid, however, placing an aphasic patient in a group that is too advanced for him, or he will often retreat in frustration. On the whole, however, we have found group work an excellent tool in aphasic therapy.

It is often the duty of the speech therapist to enlighten the hospital personnel coming into contact with the patient and the family of the patient as to his language capacities and limitations. This is done to carry over clinical instruction into the patient's daily living activities. It is imperative that the patient be encouraged to use whatever language he has learned and that he is not permitted to lapse into silence in a social situation. A certain amount of tolerance, a great deal of encouragement and patience and, most important of all, a sense of humor on the part of those of us concerned with the aphasic individual can do more than all the sympathy in the world. Nurses should be urged to converse with their patients and to press them for verbal responses. Families should be warned against over-emotionalism at the sight of their strangely-stricken loved ones. It is difficult enough to deal with the emotional liability and catastrophic type of behavior so typical of aphasia without having these characteristics augmented by well-meaning relatives and professional personnel.

Parkinson's disease, in many instances, presents a far different speech picture. It has been found that many patients who have had Parkinson's disease for a long period of time and who have a marked physical involvement as a result of the disease suffer some speech disability. I have found, in my experience with these patients, that those with rigidity have more serious speech involvement than those with tremor. The problem most commonly met with is faulty phonation. There is a decrease in the volume of the voice which exhibits dysprosody, a disturbance in melody and intonation, and, quite frequently it becomes tremulous, weak and, at times, completely inaudible. Oftentimes phonation is lacking completely and the patient speaks in a whisper. Articulation, in many instances, is slurred and indistinct, especially in the production of labial and alveolar sounds. This may be the result of pathological involvement of the oral musculature. The articulators, however, in many instances perform normally for isolated voluntary movements and poorly for speech.[2] There is evidently, then, some disturbance present which hampers the ability of the patient to integrate these isolated movements into the complicated patterns of normal speech production.

Quite frequently, among Parkinson patients, we find those whose speech is marked by nonfluency, clonic blocks and hesitations. Such patients give a history of starting to "stutter" several years after the onset of the disease and becoming worse as the disease progresses.

Therapy is primarily directed towards a stronger, more resonant voice. Breathing patterns should be investigated—especially the inspiratory phase of respiration. Automatic inspiration quite frequently is disturbed and the patient must be made cognizant of this problem and retrained in proper breathing habits.

In working with a patient with Parkinsonism a tape recorder is used constantly. It permits the patient to compare the volume of his voice with that of the therapist and to adjust his voice accordingly. In many instances this is all that is necessary, for most patients are unaware of their weakened voices until they hear them from a

source outside themselves and are able to evaluate comparative loudness levels more accurately. For those who need further help in increasing the volume of their voices, we recommend the use of large body muscles while speaking. Contraction of the glutei, the large leg or arm muscles will oftentimes stimulate a glottal attack by the cords. This type of voice production, although not usually recommended, will produce phonation where none was present and prove to the patient that he has not lost his voice. The therapist can proceed from there guiding the patient into proper voice habits.

Negative practice—deliberately producing a soft, weak voice and then increasing in loudness until the proper volume is attained—helps many patients. Carrying on a conversation against a background of noise and then cutting off the masking and noting the level of loudness will frequently make the patient aware of the amount of energy needed for audible speech. This is a great problem with Parkinson patients. So many of them are entirely unaware of the inaudibility of their voices and complain to the therapist that their voices seem loud enough to them for social intercourse. Perhaps, audiometric studies done with these patients may reveal some interesting phenomena.

We teach lip rounding and prolongation of nasal sounds and of voiced consonant continuants, within a phrase or sentence, to increase resonance and to aid in the achievement of proper articulation. Occasionally, in order to develop an awareness of the articulatory organs, exercise of the tongue, jaw and lips are performed before a mirror.

Tongue tremors are seen frequently but seem to have very little correlation with speech production. Many patients with severe tongue tremors have good voice and speech while others with no tremor have poor articulation and lowered vocal intensity.[2]

Many patients complain that their speech musculature "freezes" while their thoughts tumble ahead of their ability to verbalize. Thus, we often see the patient who suddenly lapses into silence when asked a question or when carrying on a conversation with the therapist. The typical masked facies and postural rigidity give the impression that such a patient is unaware of any verbal responsibility at the moment. Actually, such patients are struggling to speak but cannot. We encourage such patients to phonate at these times even if speech is not forthcoming. Then, after accepting any vocalization the patient might utter and reassuring him as to its being an appropriate response, we guide him into a slow, easy rate of speech with proper phrasing and, if this is done in an atmosphere of acceptance and permissiveness, the blocking frequently subsides.

The time element prevents my going further into other speech and language problems these patients may present. Certainly they could bear further investigation. I beg you, as physicians, not to neglect these problems which do so much to excommunicate these chronically ill, debilitated people from the world of social intercourse.

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TRANQUILIZER USED IN CHILDBIRTH

Still another use has been made of one of the tranquilizers: to relieve pain and to produce relaxation during childbirth. The drug promazine was given intravenously to 100 women by Drs. Stanley P. Wegryn and Robert A. Marks, New Orleans. Also given to the women were a spinal anesthesia and merperidine, a pain-relieving drug. Excellent results were achieved in fifty-seven of the women and good results in twenty-nine.

Promazine has a "marked relaxing effect" and helps prevent vomiting. It also seems to have some properties that help the patient to forget part or all of the labor, the doctors said. They noted that the drug should not be given to persons with asthma, since it produces brief nasal and throat congestion.

The authors are in the department of obstetrics and gynecology, U. S. Public Health Service Hospital, New Orleans.—*J.A.M.A.*, August 17, 1958.

Choledochoduodenostomy Using a Polyethylene Tube Prosthesis

By R. M. Reynolds, M.D.,
and R. P. Reynolds, M.D.

Detroit, Michigan

THE management of obstructing lesions of the lower common bile duct continues to be a difficult problem to the surgeon. Several procedures are available for relieving or by-passing a lesion in this location. The choice of operation may depend on whether the cause of the obstruction is benign or malignant, although this may be impossible to determine with a mass in the head of the pancreas. In the past, the most widely used procedures have been: (1) cholecystojejunostomy,[7] (2) cholecystojejunostomy, pancreaticojejunostomy, and jejunojejunostomy,[2] (3) choledochojejunostomy,[1] (4) choledochoduodenostomy,[4] and (5) sphincterotomy.[3]

Since 1949, we have done twenty-eight choledochoduodenostomies using a short polyethylene tube for a prosthesis in the anastomosis. This type of by-pass has been used both for stenosis of the common duct in the ampullary region and for those carcinomas of the pancreas or ampulla which did not appear to be curable by radical resection. Because this operation has provided a simpler method of relieving the obstruction, we have reviewed the twenty-eight patients and are reporting the operative technique and results in detail.

Technique

The abdomen is opened through a right subcostal incision, which transects the right rectus muscle. The common duct is exposed in the usual manner. The duodenum is mobilized by freeing its lateral attachments. In all twenty-eight patients, the common bile duct was significantly dilated. If we diagnose an unresectable neoplasm, the anastomosis is made. However, if a neoplasm is not present, the common duct is opened and the patency of the ampulla is determined. A transduodenal approach may be necessary, either to be certain that dilators have passed into the duodenum or to view a lesion at the ampulla. The wall of the common duct is then sutured to the anterior duodenal wall by placing four to five sutures between the duct and seromuscular layer of duodenum. These sutures are interrupted sutures of 3-0 intestinal cotton. They are placed, as near as possible, in a transverse plane in both structures. An opening is then made in the duct and in the duodenum for 1.5 cm. A second row of interrupted sutures is then placed through all layers to form the posterior inner row. A specially constructed polyethylene tube is then placed in the openings.* This tube is 3.5 cm. in length. It has two tunnels placed in the midportion of the wall so that the tunnels do not open into the lumen of the tube (Fig. 1). This prevents suture material from coming into contact with bile. A 3-0 cotton suture, with a swedged-on needle, is placed through each tunnel prior to insertion. The tube is then anchored in place by suturing the tunnel stitches to the posterior wall of the openings (Fig. 2). The anastomosis is completed by suturing the duct wall anteriorly to the duodenal wall. Reinforcing stitches are placed to complete the second row anteriorly. The gall bladder was removed in all our patients. If there is any significant obstruction of the duodenum by neoplasm, a posterior gastrojejunostomy is done. In most instances, this anastomosis can be made without tension, since the dilated duct lies close to the duodenum.

Discussion

These patients were operated on because of obstructive jaundice. The first operation was done in 1949, and all the patients have been followed to the present date. In each case, the common bile duct was dilated significantly; and a diagnosis

From the Division of Surgery, Grace Hospital, Detroit; R. M. Reynolds, Volunteer Assistant, R. P. Reynolds, Chief.

Presented at the annual meeting of the Michigan Chapter of the American College of Surgeons, March 18, 1958.

*This tube was designed by Dr. Charles Stebbins, Associate Surgeon at The Grace Hospital.

of neoplasm, stone, or stenosis was determined as far as possible. We believe that this type of anastomosis is technically simpler than other types of by-pass procedures. In only a few cases was the operating time over one hour.

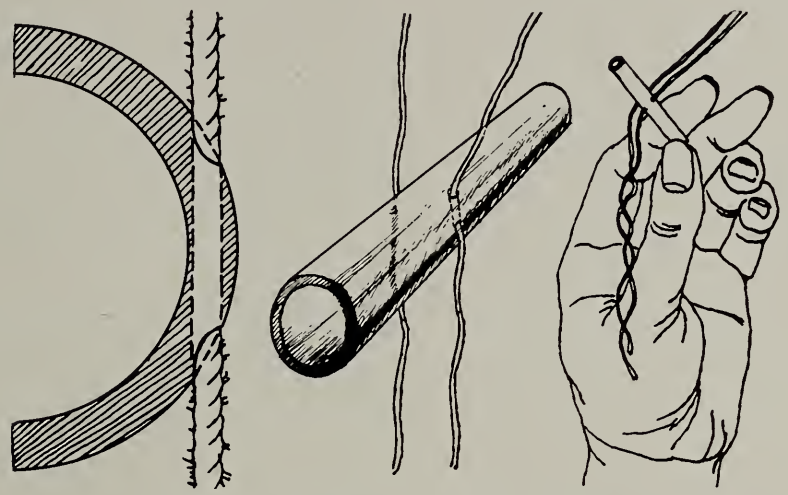


Fig. 1. Polyethylene tube showing tunnels in wall.

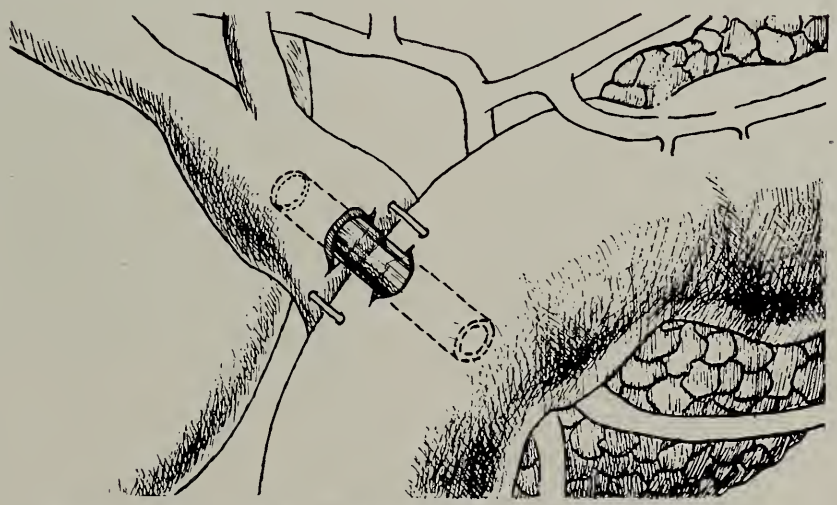


Fig. 2. Tube in place, before anastomosis is completed anteriorly.

Fourteen of the twenty-eight patients had carcinoma arising in the head of the pancreas or ampulla. Twelve of these fourteen have died, with the average survival-time being ten months. The other two had recent operations. The longest survival-time was thirty-five months, and the shortest was one month. Eleven patients had stenosis of the lower common duct. Ten of the eleven are alive today, with the longest survival-time being eight years. These ten patients are free of symptoms and lead normal lives. The other patient had recurrent cholangitis and died of a coronary thrombosis. The remaining three patients had pancreatic masses which were not positively diagnosed at operation. They were operated within recent months and are free of symptoms at this time.

There is no certain method of determining how long the polyethylene tube remains in place. In an attempt to learn more about this, seven patients were brought back to the hospital for intravenous cholangiograms. This study was made possible by a grant from the Hartford Foundation. Only one x-ray showed a tube in place, and this was twenty-nine months following operation.

This patient lived thirty-five months after operation; and at autopsy, the tube was still in place and was patent, in spite of it being surrounded by tumor. Two patients were shown to have air in the biliary tree, and four showed faint visualization of normal-appearing ducts. The other patient had no visualization. While this group is small, there was x-ray evidence of communication between the common duct and duodenum in six instances. We think that the tube probably passes into the duodenum within a few months.

We were concerned about ascending cholangitis developing, but only one patient has had symptoms attributable to this. This patient was operated on in July 1956 for a severe ampullary stenosis. In the next year, she had three attacks of nausea, chills, fever, and right upper-quadrant pain. She responded well to Zanchol[6] therapy and was free of symptoms when she died suddenly of a coronary thrombosis in August 1957. The fact that most patients have been free of symptoms may in part be due to removal of the gall bladder. Recent reports, such as Large's[5] show that the gall bladder may be inflammed by regurgitation of intestinal contents if it is used in the by-pass or left in place.

The quick relief of jaundice and return of better health has been most striking. This is especially pleasing to the patient with generalized pruritus. Since the tube is well into the lumen of the common duct and duodenum, the chance of occlusion by edema or torsion is not as great. In twenty-six of twenty-eight patients, the immediate postoperative course was uneventful. The other two patients were eighty-one years old and seventy-five years old and had severe cardiac disease. One died on the fifth postoperative day in cardiac failure, and the other died in one month, with renal failure as the chief cause of death. In no patient has there been a recurrence of the jaundice unless it was a terminal event in death with widespread neoplasm.

Summary

1. This article reviews twenty-eight patients in whom a choledochoduodenostomy was done over a polyethylene tube for relief of obstructing lesions of the lower common bile duct.

2. The operative technique and special construction of the tube are explained in detail.

3. The majority of patients made an uneventful recovery with immediate and lasting relief of jaundice.

4. We believe that on the basis of technical facility, fast return to better health, and excellent long-term results, this type of by-pass procedure can be highly recommended.

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856 Fisher Bldg.

GONE—OLD PHARMACY BUILDING

Demolition of the 102-year-old Pharmacology Building on the University of Michigan central campus has now been completed. No new building is planned for the vacated area.

The Department of Pharmacology, School of Medicine, occupied the building for the past fifty years. Pharmacology has taken new quarters in the recently completed Medical Sciences Building at the Medical Center.

The three-story campus landmark, seat of important national narcotics research in recent years, was first begun in 1856. Since then, eleven additions have been made to the brick structure. It was originally built for $4,500 and covered 3,600 square feet.

Upon completion, the original building became the first such university structure in the United States devoted exclusively as a chemical laboratory. The nation's first state university pharmacy course was held there in 1868.

Serum Transaminase Determination in the Differential Diagnosis of Jaundice

Surgical Aspects

By Sidney E. Smith, M.D.,
Kirk V. Cammack, M.D.,
and Max E. Dodds, M.D.

Flint, Michigan

THE scope of diagnostic medicine has been supplemented recently by the introduction of the determination of several transaminase enzymes. Many of these have been investigated and their relative values assessed in various disease states. The transaminases are distributed in all tissues, but are found in highest concentration in the heart, liver, brain, and kidney.[2] The assay of enzymes is not a new field. For many years the laboratory determinations of acid and alkaline phosphatase have been valuable diagnostic tools. Of the numerous transaminases present in the liver, the glutamic oxalacetic transaminase, commonly designated as GOT, has been the most widely studied. Techniques have been developed to make its determination reliable in the clinical laboratory. This enzyme is released into the blood stream following hepatocellular injury, and its level is a reflection of the amount of cellular damage.

A study of 102 patients was undertaken at Hurley Hospital to investigate serum GOT determinations as an aid in the differentiation between surgical and medical jaundice. Sixty-six of the patients studied were jaundiced. In this jaundiced group, fifty-two patients had primary hepatobiliary disease, while fourteen had metastatic malignant disease of the liver. The remaining thirty-six were non-icteric patients with malignancies. This latter group was studied for evidence of liver metastases.[6] The serum level of GOT was measured spectrophotometrically using the method of Karmen.[4] The reaction briefly is as follows:

L-Aspartate $\rightleftharpoons$ a-Ketoglutaric acid (GOT)

Oxalacetic acid $\rightleftharpoons$ Glutamic acid

Oxalacetic acid $\rightleftharpoons$ DPN H (malic dehydro)

Malic acid $\rightleftharpoons$ DPN

Malic dehydrogenase removes the oxalacetic acid from the reaction and forces it to the right. Thus the reaction is limited only by the amount of SGOT present. The determination is actually indirect because it measures the rate of disappearance of DPN (reduced diphosphopyridine nucleatide) and is expressed in units per milliliter per minute. Normal values in our laboratory range from 5 to 45 units.

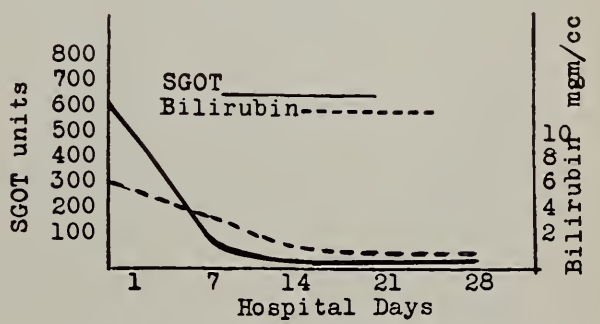


Fig. 1. SGOT and bilirubin levels in hepatitis.

Twenty-seven patients fell into the group with the diagnosis of infectious hepatitis or infectious mononucleosis (Fig. 1). These patients were all jaundiced. The usual liver function studies and the clinical course substantiated the diagnosis. The SGOT levels were determined within the first twenty-four hours. In all instances, levels ranged between 400 and 1100 units. This is obviously a marked elevation. Serial determinations of SGOT were performed and as the other laboratory studies improved, the SGOT also improved. However, the SGOT approached normal more quickly than the other liver function studies.

Figure 1 illustrates SGOT and bilirubin levels found in hepatitis. It is important to obtain the initial determinations of SGOT early in the disease since serial levels fall rapidly with clinical improvement.

Twenty-five patients with obstructive jaundice

Presented at the annual meeting of the Michigan Chapter of the American College of Surgeons, March 18, 1958.

were studied. These included fourteen cases of choledocholithiasis, seven cases of carcinoma of the head of the pancreas, three cases of metastases to the portal area, and one case of extrahepatic

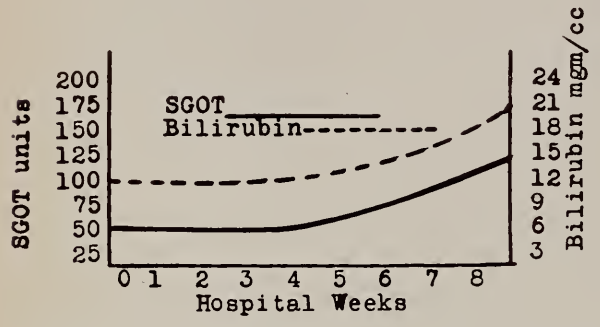


Fig. 2. SGOT and bilirubin findings in a case of biliary atresia.

biliary atresia. The SGOT was elevated in all instances, ranging from 70 to 120 units with an average of 85 units. It should be emphasized that the elevation is not nearly as marked as in patients with hepatic damage.

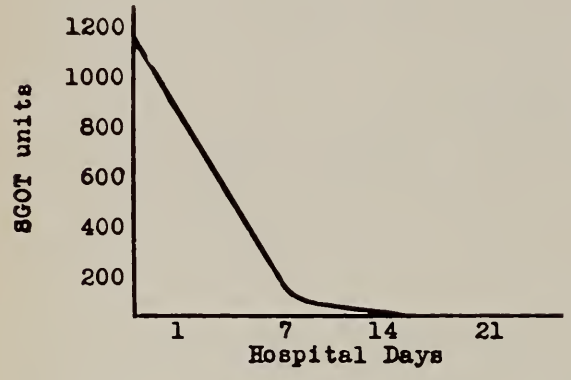


Fig. 4. Illustrative medical case showing gradual return to normal of SGOT values.

Figure 2 illustrates the findings in the case of biliary atresia in a ten-week-old infant with complete unrelieved obstruction. The SGOT and bilirubin progressively rose, the former indicating hepatocellular damage. This patient was explored and found not amenable to surgical repair of the extrahepatic ducts. The liver was grossly nodular and a biopsy revealed portal cirrhosis and bile stasis.

Figure 3 represents the laboratory picture seen in a case of choledocholithiasis before and after surgical intervention. The moderately elevated level of SGOT rapidly fell to normal following removal of the obstruction. A moderate elevation similar to this is seen in cirrhosis.[3]

Illustrative Case

A case history in which the serum glutamic oxalacetic transaminase determination proved especially invaluable in the differential diagnosis of jaundice is presented.

A white woman, aged fifty-four, diabetic hospital employee, was admitted with chief complaints of jaundice, pruritus, clay-colored stools of three days' duration, and dark urine. She gave a past history compatible with gallbladder disease and during previous pelvic

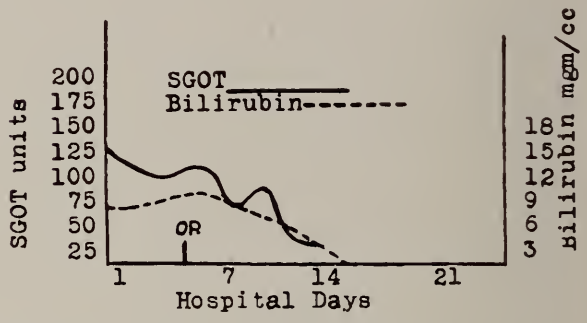


Fig. 3. Laboratory picture in a case of choledocholithiasis before and after surgery.

surgery a thickened gallbladder had been palpated. Normal prothrombin time, normal hemoglobin, normal white blood cell count, and negative serology were reported by the laboratory. The alkaline phosphatase was 9.6 Bodansky units, total serum protein 6.8. gm. per cent (albumin, 3.5 and globulin, 3.3) and total bilirubin 12.5 mg. per cent with almost all of the bilirubin in the direct reacting form. No urobilinogen was found in her urine on two occasions. Cephalin flocculation was 2+ at twenty-four hours and 3+ at forty-eight hours.

Because of the predominantly direct bilirubin, pruritus associated with jaundice, negative urobilinogen in the urine on two occasions, and a past history of gallbladder disease, the possibility of a common duct stone was entertained and a surgical consultation requested.

A serum glutamic oxalacetic transaminase on the day of referral was reported as 1,160 units (Fig. 4). On this basis the diagnosis of obstructive jaundice was questioned and surgery deferred.[1] The patient was treated supportively and the bilirubin gradually returned to normal. The serum transaminase was normal within seven days. The patient has since returned to work without further complaint. A gallbladder series performed after the jaundice had subsided indicated a normally functioning gallbladder.

Discussion

Fifty cases of neoplastic disease were studied. In all instances the diagnosis was established by surgical biopsy and/or postmortem examination. In twenty cases without liver metastasis there was no elevation of the SGOT. On the other hand,

in all thirty patients with liver metastases the SGOT level ranged from slight elevation to 200 units. The smaller diffuse metastases were associated with only slight elevation of the SGOT (55 to 60 units). When high levels were reported the patients were usually jaundiced (fourteen patients) or had other laboratory evidence of hepatic disease. There appeared to be no correlation between the SGOT levels and the degree of liver replacement by metastases since large metastases were at times associated with only slight elevation of the SGOT.

Summary

The determination of transaminase and other intracellular enzymes has proven to be an important diagnosis tool in differentiating surgical and medical jaundice. The SGOT level in patients with acute hepatitis is markedly elevated. Because of this, laboratory tests can be helpful in the differentiation of parenchymal damage and obstructive jaundice or metastatic disease. The SGOT falls rapidly toward normal levels, and in hepatitis may reach levels between 50 and 300 units where its diagnostic significance is lost. These are the ranges found in obstructive jaundice, metastatic liver disease, and cirrhosis. Within as short a period as three to four days following the onset of clinical jaundice these intermediate ranges may be found.

In obstructive jaundice, the SGOT levels are much lower and tend to rise progressively indicating parenchymal damage within the liver. Values fall to normal limits within a week after the obstruction has been relieved.

The presence of an elevated SGOT in patients with malignancy usually indicates liver metastases. However, there appears to be no correlation between the extent of liver metastases and the SGOT level.

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PUBLIC RELATIONS AND THE PATIENT

(Continued from Page 1719)

and the younger men since many of the older men will have difficulty erasing from their minds memories of the days when a prostatectomy was a prostatectomy and not only slightly more dangerous than a hair cut.

Well, all this may seem rather alarmist to most of you but after considerable study I do not agree. Ever since I was in medical school I have heard about the danger of state medicine. It never seemed to me that it would be likely to occur in this country. Now I fear it and apparently many other people do too as the medical schools are having a lesser number of applications for admission each year and many physicians advise their sons not to study medicine. Think of the cumulative effect of this on other young and desirable prospects. I like the conclusion of a recent editorial in the *American Journal of Surgery* by Dr. George Brown of Pomona, California, "make more patients out of cases or the government may make cases out of all our patients." This changing world is a real challenge but you all have within yourselves the answers to our problems.

6832 Tivani Drive

Editorial

OUTLETS FOR THE DOCTORS' MONEY

The American Medical Association for a number of years has been urging the doctors, wherever and whenever possible, to make donations to their Alma Mater Medical Schools in order to furnish funds which may be used by the school faculties to augment or institute teaching programs, to conduct research and to accomplish many of the purposes—necessary ones—for which funds are lacking. The Federal Government wished to subsidize these schools and the medical profession forestalled that effort by stimulating and in part supervising collections for the use of the various medical schools.

It is estimated that the schools actually need $10 million a year which could have been secured from the Federal government at the expense of surrendering independent control.

Physicians have been urged to make liberal gifts through the AMA or through their State Medical Society or directly to their Alma Mater. Some states have issued assessments of $5, $10 or $20 a year and in one or two instances, $100. These are worthy projects and our members are urged to take part in them whenever and wherever possible, according to their ability to pay. These fund donations are tax deductible. Some have urged these donations be given at Christmastime—at the year end—at the year beginning. One of our Councillors suggested that doctors make it a birthday present—their own birthday—to this and other appropriate and suitable projects. We shall list just a few.

Beaumont Memorial Foundation

The Michigan State Medical Society has been working for many years to acquire the site and reconstruct the Beaumont House—the old Astor Fur Company House—at Mackinac Island. Many committees have worked, much research has taken place, the building has been completed and finally it has been placed upon a satisfactory upkeep program by the Mackinac Island State Park Commission.

Within the past year, a Beaumont Memorial Foundation has been established with Otto O. Beck, M.D., as President. As an administrative committee, the Foundation has been accepting donations to complete the project, acquire the exhibit material and administer the building. Membership is $5 a year. A person may purchase a life membership for $100, or he may make any smaller donation he wishes, all of which will be thankfully accepted.

Michigan Foundation for Medical and Health Education

This Foundation, with Earl I. Carr, M.D., Lansing, as President, was established by the State Medical Society and the activities of a few very interested persons. This Foundation has a rotating fund and a loan fund available for students. It stimulates doctors to go into rural practice.

These projects are all worthy causes and can accept donations from the willing membership. The new MSMS Home Office Building could be added to that list because there will be the problem of furnishing certain of these rooms and possibly also adding to the building fund which might prove to be inadequate.

For several years, the Past Presidents of the Michigan State Medical Society have been holding a luncheon during the annual session and have expressed their willingness to help the Society in any feasible way. At this last annual session they decided to investigate the possibility of furnishing the Past President's room. There are exactly twenty Past Presidents living, of whom fourteen attended this meeting. There are other groups which might feel free, if their attention were called to it, to make additional donations or to make other memorials.

TRIBUTE TO DEDICATED WORKERS

The year is drawing to a close and it is proper that we reflect upon its accomplishments. Probably the most demanding problem facing the medical profession has again been the distribution of medical care to our patients.

The outstanding accomplishment in Michigan is the work with our Blue Shield program. Michigan is extremely fortunate—we have only one Blue Shield program and one Blue Cross program. In its early development, Blue Shield in Michigan

(Turn to Page 1732)

The Lengthened Shadow

A great organization is but the lengthened shadow of a great man. I am sure that is not an accurate quotation but I am equally sure it is a fact. It is true insofar as the Michigan State Medical Society is concerned.

That is not to say that other men, great and small, have not and are not making major contributions to our organization. But all of us know that one man above all others has given his life to the MSMS. His leadership is reflected in the present eminence of this Society and its past record of responsible service to the public and the profession.

One of the tenets of this man has been that he has believed and practiced the theory that the office should seek the man and not vice versa. In consequence of this and of the example he has set, those who, over the years, have held high office have done so not to advantage themselves but in the spirit of serving and sacrificing for us.

It is interesting to note that this leader has been offered honors higher—in point of the fame to be gained—than the MSMS could offer him. He has turned these honors down, preferring to see other capable doctors be so recognized while he himself continued to work for the organization he loves.

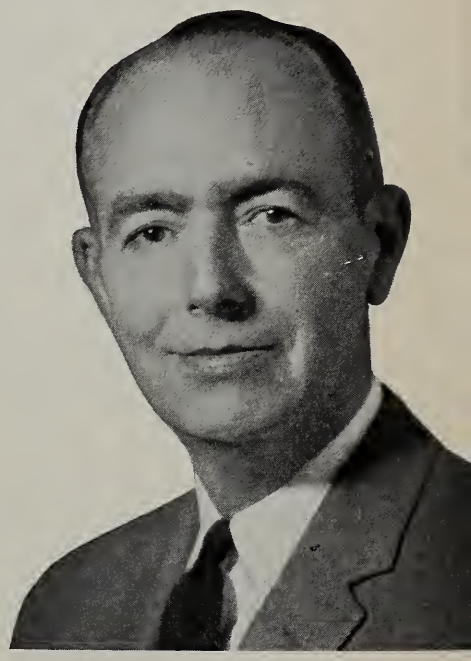
We are proud of our Society—proud of its work, of its services, of its meetings—such as the Michigan Clinical Institute which he helped to originate and to which this number of THE JOURNAL is devoted. Our pride then is, perhaps, the highest tribute we can offer to this leader—a fitting tribute to a great officer, a true gentleman and a fine doctor of medicine—L. Fernald Foster, M.D., Secretary, MSMS.

We hope his shadow continues to lengthen and cast its beneficent influence over this Society for years to come.

Delbert D. Dallenbach

President, Michigan State Medical Society

President's



Message

(Continued from Page 1730)

was made an exact and intimate function of the Michigan State Medical Society, leaving no question of outside control. The House of Delegates and its elected Blue Shield directors are the corporate body which elects the Board of Directors to operate Michigan Medical Service.

During the early years when the plan was absolutely new, there were members from some sections who opposed the insurance concept, but the needs of the time and the necessities of our patients stimulated pioneering groups in several sections of the state to make studies, research and plans. Ultimately, the Executive Committee of The Council took over this laborious task and, upon its detailed recommendation, the MSMS House of Delegates established Michigan Medical Service. The 1938-1942 years will never be forgotten, with the days and days of meetings and travel, the arguments, the conferences, finally culminating in a smooth working organization. Michigan Medical Service grew and prospered.

About seven or eight years ago, it became evident that abuses, over-utilization and over-hospitalization were developing. Some of our officers advocated that the benefits be liberalized and modernized, trying to cover more carefully and completely, the desires of our subscribers and the wishes of our members. Committees made extended investigations and reports, surveys were undertaken and a new set of principles established.

The last two years have made unusual demands upon our administrative and elective officers. Informational meetings and conferences have been held in every section of the state. Our top officers —President, immediate Past President, and President-Elect—together with the secretaries, public relations officers, administrative and directive officers of Michigan Medical Service, have traveled hundreds of thousands of miles. They have visited every section where a group would gather and listen. The burden fell rather heavily upon our immediate Past President, George W. Slagle, M.D.; the year before on his predecessor, Arch Walls, M.D., and upon the incoming President, G. B. Saltonstall, M.D. A President has three years of very active service. These men were accompanied all over the state by L. Fernald Foster, M.D., Secretary of the Michigan State Medical Society and President of Blue Shield. Other officers actively involved in travel and meetings and endless explanations were members of The Council, with special emphasis on members of the Executive Committee and particular emphasis upon Chairman D. Bruce Wiley, M.D. K. H. Johnson, M.D., Speaker of the House of Delegates, rates most sincere and deserved praise for understanding and vital contributions. J. C. Ketcham, in addition to his duties as Executive Vice President and with consultation calls throughout the nation, took a terrific beating in attending these meetings. J. J. Lightbody, M.D., and Max L. Lichter, M.D., must also be remembered.

We have not forgotten others of our personnel such as Hugh Brenneman and Tom Paton whose schedule is just as exacting and active and who were tried to the utmost in repeatedly explaining problems and answering questions. Let us not forget two other Presidents involved in this same effort—William S. Jones, M.D., and the late Robert H. Baker, M.D.

The Editor has been conscious of this tremendous effort over the years. On Monday, September 22, he attended one of these sessions. It lasted until practically midnight. The questions asked indicated that many of the members had not read The Journal or literature sent directly to them and claimed not to know even what had been going on. They accused the officers of taking unfair advantage and ignoring certain groups of the membership. That these dedicated officers with good grace could continue to respond over a period of years is proof that the profession in itself will ever have defenders who will continue to return and perform their duties.

What About Blue Shield?

Connecticut Medical Service was established by industrialists and later, to comply with Blue Shield rules, asked approval of the State Medical Society, granting the privilege to elect a group of M.D. directors to their Board, with right to recall. When this right was cancelled without notice, the Connecticut State Medical Society and the House of Delegates, in a special session, repudiated the medical service and demanded the resignation of its representative members on the Connecticut Medical Service Board. Charging failure to report, they retired their Executive Secretary and their Editor. Conferences have re-established good relations between the State Society and Blue Shield.

In Wisconsin, there were two Blue Shield groups contending for the same territory. The State Society

plan was state-wide. The Milwaukee plan had always sold in a ten-county area. They declined to desist. The Wisconsin House of Delegates, at a special meeting September 28, directed The Council to discipline or expel Milwaukee County Medical Society. This resulted in the resignation of the State Society President, Jerome W. Fons, M.D., of Milwaukee.

In Pennsylvania, the Prepaid Health Care movement got into the courts with certain directives issued and a long report by the Commissioner of Insurance.

Michigan is fortunate in its set-up, but we still have problems, most important of which is the fee scale. When establishing the first fee schedule, demands were made by specialty groups for recognition of their superior training. In this present stage of development, an attempt is still being made to answer that question. The relative value scale for Michigan is the immediate task of a committee headed by Grover C. Penberthy, M.D., Detroit, with instructions to have it ready for the next session of the House of Delegates or a special session, if called earlier. No time should be lost, especially by those interested in special allowances for special services to propose formulae and consult with this committee. Early this year, when these suggestions were requested, responses in some instances were delayed beyond the necessary deadline. This could happen again and throw an unnecessary burden on our willing officers.

ANTICIPATED LEGISLATION FOR 1959

The year 1959 will present a new legislative program for the Federal Government. A new Congress will be in session, and any bills not enacted into law in 1958 will be dead and congressmen, as usual, will reintroduce any of their previous bills and will be ready to introduce newly contemplated legislation. In his State of the Union message, the President will suggest new legislation. Every new Congress goes through this same program. There are a few items in which self-employed professoinal men should be interested, and they should not hesitate to contact their senators and representatives. Quite a number have always been in the habit of making suggestions and expressing opinions on topics in which they were very much interested. The only way a congressman knows what his constituents want is through contact, either personal, by word of mouth or by letter, and probably letters offer an opportunity for more effective contact.

Jenkins-Keogh Bill

This bill has been modified very considerably through the years. Bills of this nature have been in the Congress for over ten years and we have brought them to the attention of our readers for that length of time. The bill in the last Congress was considerably toned down from the original proposal but still was a very good step in the matter of equalizing the tax burden of the self-employed professional men as compared to the executives and others in industry. The last bill passed the House and was buried in the Senate by failure to include it in an omnibus bill passed in the late hours to cover needed legislation. It will probably be re-introduced in much the same form in which it passed the last House of Representatives. Professional men generally are quite pleased with this bill and bankers, trust officers, etc., are anticipating satisfactory new business when and if the bill passes. It will allow the self-employed person to set aside before taxes a certain percentage of his income but not to exceed $2,500 a year or a gross of $50,000. That money must be invested under certain definite restrictions and must be completely devoted to retirement income or annuities.

Medical Education

It has been quite apparent in the last ten or twelve years that we are developing a shortage of well trained doctors of medicine. More are being graduated each year but the increase has failed to keep pace with the increase in population. The federal government, the Congress, has realized this situation and would gladly have established new medical schools, made appropriations for their building, maintenance and operation. Such bills have been in every Congress. The American Medical Association has opposed this complete program, has been willing to work with a construction program and for at least ten years has been attempting by voluntary means to raise some of the additional money needed to operate the existing medical schools. There will undoubtedly be bills in the new Congress designed to educate more doctors and to benefit those now in school.

Surgeon General Leroy W. Burney (USPHS) in his talk to the American College of Surgeons in Chicago, October, 1958, called attention to the desperate needs for more doctors by the military, the federal government departments and the 175 million population. The new AMA Directory just

issued contains the names of 250,621 doctors for the whole United States and possessions and Canada. When the retired, those engaged in teaching, those engaged in industrial practice, those engaged in governmental services, hospitals, laboratories, etc., are subtracted, we probably have much less than one doctor per thousand of our population—an admittedly inadequate number.

Michigan's Situation

There has been agitation in Michigan for several years to establish a third medical school. Dean A. C. Furstenburg emphasized that at one of our sessions and several areas in the state have expressed their interest. For a period of ten years up to about three years ago, Michigan has needed and imported on the average each year, over 260 doctors more than we were educating in Michigan. Being prevailed upon by organized medicine in Michigan to take a step toward relieving that situation, the legislature last year authorized Wayne State University Medical School to accept an extra fifty freshmen for this school term. The required $285,000 was not specifically appropriated but the school was granted legislative permission to use part of its "omnibus" appropriation, with the promise of future state financial support. The facilities were at Wayne, the room and the opportunity and the students have been accepted. The financial program of carrying these students through graduation, internship and license to practice should should be decided by the 1959 legislature. This increase in registration in the course of the next four or five years would supply less than 20 per cent of the increment we have been averaging for the last ten years.

Distribution of Medical Care

It has not yet been announced, but the President probably will suggest a study looking toward prepaid medical and hospital care for the federal employees and their dependents amounting to approximately 5 million people. Blue Cross and Blue Shield have been working on this program for many years. If the government is willing to care for these people the same as industry does, there will be no particular problem. Blue Cross and Blue Shield is now available throughout the country to around 70 million people and an addition of another 5 million could easily be accomplished.

Care of the Aged

Care of persons over sixty-five who are retired or about to retire, the vast majority of whom do not have adequate resources, has been a constantly increasing problem. The AMA has a committee at work and groups are working in Washington as well as in other areas throughout the states. From the beginning Blue Cross and Blue Shield have recognized this unsatisfied need. Subscribers are not dismissed or cancelled out when they reach the age of sixty-five or seventy, as so many companies are doing. If the aged are in a group, or if they have been in a group, they may continue to pay their premiums and draw their benefits on the community rating the same as any other person.

Experience in Michigan has been very favorable. Blue Cross and Blue Shield have paid enormous amounts of benefits to their senior subscribers—running the total into thousands of dollars, per case, and these cases occur rather frequently. Michigan's experience with some necessary modifications might be extended to cover this entire group. The premiums might have to be revised for their special benefit and the government should recognize a responsibility of contributing to these premiums the same as any employer of labor does. Allowing the responsible medical profession to administer its own program without interferences or hindrances would be essential. Studies are now in process which should, before many months, offer definite proposals.

PROCEEDINGS—1958 HOUSE OF DELEGATES

Due to technical difficulties, both the Program of the 1959 Michigan Clinical Institute and the Proceedings of the 1958 MSMS House of Delegates cannot be published in the December number of THE JOURNAL. Since the December issue is dedicated to the Michigan Clinical Institute, it will be necessary to postpone the publication of the Proceedings (over 64 pages) until the January number.

Meanwhile, reprints of the Annual Reports of the Medical Care Insurance Committee are being mailed to all MSMS Delegates, Presidents and Secretaries of County Medical Societies, and members of Councilor District Medical Care Insurance Committees. These reports will be published also in the January number of THE JOURNAL.

THE EDITOR

Michigan Clinical Institute

Refresher Course

Sheraton-Cadillac Hotel, Detroit

TUESDAY-WEDNESDAY-THURSDAY-FRIDAY, MARCH 10-11-12-13, 1959

W. S. Jones, M.D., Menominee
General Chairman

- **THEME**—"The Course that Refreshes."
- **HEADQUARTERS**—Sheraton-Cadillac Hotel; Assemblies and Exhibits on Fourth Floor; Press Room on Fifth Floor (Suite 500).
- **REGISTER**—Top of stairs—Fifth Floor—as soon as you arrive.
 Hours: Tuesday, March 10—12:00 noon to 5:15 p.m.
 Wednesday, March 11—8:30 a.m. to 5:15 p.m.
 Thursday, March 12—8:30 a.m. to 5:15 p.m.
 Friday, March 13—8:30 a.m. to 2:00 p.m.
- **NO REGISTRATION FEE** for Members of MSMS and other State Medical Associations, AMA, and Canadian Medical Association.
- **ADMISSION BY BADGE ONLY** to all Assemblies and the Exhibition. Please present your MSMS or other State Medical Association, AMA, or CMA Membership Card to expedite registration.
- **GUESTS**—Members of any state medical association, AMA, or CMA members from any province of Canada, and physicians of the Army, Navy, and U. S. Public Health Service are invited to attend as guests. No registration fee. Please present credentials at the Registration Desk.
 Bona fide doctors of medicine who are associate or probationary members of Michigan county medical societies or who are serving as residents or interns, if vouched for by the president or secretary of the county medical society in whose jurisdiction they are located, will be registered as guests with no registration fee. Please present credentials at the Registration Desk.
- **MICHIGAN DOCTORS OF MEDICINE** in practice but who are not members of MSMS, if listed in the American Medical Association Directory, may register as guests upon payment of $25.00. This amount will be credited to them toward dues in the Michigan State Medical Society FOR 1959 ONLY, provided they subsequently are voted into membership by the county medical society in whose jurisdiction they practice.
- **TELEPHONE SERVICE**—Local and long distance telephone service will be available in the Sheraton-Cadillac Hotel, fourth floor. In case of emergency, physicians will be paged from the meetings by an announcement on the screen. Call the Sheraton-Cadillac Hotel, Detroit, WOodward 1-8000, and ask for the Michigan Clinical Institute extensions on the Fourth Floor.
- **CHECKROOM** is available in the Sheraton-Cadillac Hotel, Fourth Floor, next to Grand Ballroom.
- **GUEST SPEAKERS** are very respectfully requested not to change time of their lecture with another speaker without the approval of the Committee on Arrangements. This request is made in order to avoid confusion as well as disappointment on the part of members of the audience.
- **PAPERS WILL BEGIN AND END ON TIME**—Nothing makes a scientific meeting more attractive than by-the-clock promptness and regularity; therefore, all meetings and symposia will open on time, all speakers will be required to begin their talks exactly on time and to close exactly on time, in accordance with the schedule in the Program. All who attend the Institute are respectfully requested to assist in attaining this end by noting the schedule carefully and by being in attendance accordingly, in order not to miss that portion of the program of greatest interest.
- **MONDAY EVENING, March 9 at 10:00 p.m.**—Public Telecast of "Cataract Extraction," sponsored by Smith, Kline and French Laboratories, Philadelphia, Providence Hospital of Detroit, over Station WJBK-TV.
- **TECHNICAL EXHIBITS**—Seventy-four interesting and instructive displays will open on Tuesday, March 10 at 1:00 p.m. and on Wednesday-Thursday-Friday, March 11-12-13 at 9:30 a.m. The exhibits will close daily at 5:15 p.m., except on Friday when the show closes at 1:00 p.m. Frequent intermissions to view the exhibits have been arranged daily before, during and after the assemblies.
- **THERE IS SOMETHING** of interest or education in the large exhibit of technical displays. **SAVE AN ORDER FOR THE EXHIBITOR AT THE MICHIGAN CLINICAL INSTITUTE.**
- **POSTGRADUATE CREDITS** are given to every MSMS member who attends the Michigan Clinical Institute. Notify J. M. Sheldon, M.D., Chairman, MSMS Committee on Postgraduate Medical Education, 1313 E. Ann St., Ann Arbor, Michigan.
- **PARKING**—Do not park on Detroit's streets. Inside parking at a convenient distance from the Sheraton-Cadillac Hotel is available at the DAC Garage, 1754 Randolph, the Grand Circus Garage, 1776 Randolph, and the Book Tower Garage, 333 State.

• **PRESS RELATIONS COMMITTEE** for the 1959 Michigan Clinical Institute:



W. S. Jones, M.D.

• **W. S. JONES, M.D.**, Menominee, is General Chairman for Arrangements for the 1959 Michigan Clinical Institute.

• **W. S. REVENO, M.D.**, Detroit, is Chairman of the Program Committee.



W. S. Reveno, M.D.

• **D. H. KAUMP, M.D.**, Detroit, is Coordinator of the television program during the 1959 Michigan Clinical Institute.

• **H. M. NELSON, M.D.**, Detroit, is Chairman of the Cancer Control Luncheon on Wednesday, March 11.



H. M. Nelson, M.D.



M. A. Darling, M.D.

• **M. A. DARLING, M.D.**, and **G. T. McKEAN, M.D.**, are co-chairmen of the Testimonial Luncheon honoring presidents of national medical organizations on Thursday, March 12.



G. T. McKean, M.D.

• **INFORMATION OF PRACTICAL VALUE IN DAILY PRACTICE** will be found at the Michigan Clinical Institute. All subjects on the Institute Program are applicable to clinical medicine. They stress diagnosis and treatment, usable in everyday practice.

• **WAYNE STATE UNIVERSITY COLLEGE OF MEDICINE ALUMNI ASSOCIATION** will maintain headquarters in the Sheraton-Cadillac Hotel during the Michigan Clinical Institute. All alumni, their guests, and friends of Wayne State are cordially invited to visit the headquarters.
The room location will be posted at the registration desk.

THE "BLOCK SYSTEM"

at the

1959 MICHIGAN CLINICAL INSTITUTE

General Practice—Thursday afternoon, March 12

Surgery—Cancer Control—Wednesday morning, March 11

Trauma — Poliomyelitis—Wednesday afternoon, March 11

The Depressions—Symposium—Wednesday evening, March 11

Heart and Rheumatic Fever—Thursday morning, March 12

Internal Medicine Rehabilitation Symposium—Thursday afternoon, March 12

Obstetrics - Gynecology - Pediatrics—Friday morning, March 13

MUCH THAT IS NEW AND INTERESTING WILL BE FOUND IN THE MCI EXHIBIT

COMMITTEE ON ARRANGEMENTS

Representing the Michigan State Medical Society

W. S. Jones, M.D., Menominee, *General Chairman*
G. B. Saltonstall, M.D., Charlevoix, *President, MSMS*
G. W. Slagle, M.D., Battle Creek, *Immediate Past President, MSMS*
L. Fernald Foster, M.D., Detroit, *Secretary, MSMS*

Representing University of Michigan School of Medicine and University of Michigan Department of Postgraduate Medicine

M. S. DeWeese, M.D., Ann Arbor
J. M. Sheldon, M.D., Ann Arbor
Park Willis, III, M.D., Ann Arbor

Representing Wayne County Medical Society and Wayne State University College of Medicine

D. A. Cameron, M.D., Dearborn
Joseph Hickey, M.D., Detroit
J. T. Howell, M.D., Detroit
C. M. McColl, M.D., Detroit

Representing Out-State Practitioners, Members of MSMS

J. W. Bunting, M.D., Alpena
J. R. Brink, M.D., Grand Rapids
H. E. Cope, M.D., Lansing
R. A. Frary, M.D., Monroe
E. H. Heneveld, M.D., Muskegon
F. C. Ryan, M.D., Kalamazoo

Representing Michigan Department of Health and Michigan Health Officers Association

J. K. Altland, M.D., Lansing
O. K. Engelke, M.D., Ann Arbor

Representing Michigan Foundation for Medical and Health Education

E. I. Carr, M.D., Lansing

Representing Michigan Heart Association

F. D. Dodrill, M.D., Detroit

Representing American College of Surgeons Regional Committee on Trauma

H. M. Smathers, M.D., Detroit

Representing Michigan Cancer Co-ordinating Committee

H. M. Nelson, M.D., Detroit

COMMITTEE ON PROGRAM

W. S. Reveno, M.D., Detroit, *Chairman*
R. L. Mainwaring, M.D., Dearborn
J. M. Sheldon, M.D., Ann Arbor
J. M. Wellman, M.D., Lansing
Paul deKruif, Ph.D., Holland, *Advisor*

COMMITTEE ON COLOR TELEVISION PROGRAM

W. S. Reveno, M.D., Detroit, *Chairman*
D. H. Kaump, M.D., Detroit, *Co-ordinator*
B. E. Brush, M.D., Detroit
C. G. Johnston, M.D., Detroit
D. W. Myers, M.D., Detroit
E. A. Osius, M.D., Detroit
Robert A. Reath, Philadelphia, *Advisor*

HOTEL RESERVATIONS

MICHIGAN CLINICAL INSTITUTE

Detroit, March 10-11-12-13, 1959

The reservation blank below is for your convenience in making your hotel reservation in Detroit. Please send your application to B. Van De Keere, Executive Offices, Sheraton-Cadillac Hotel, Detroit 31, Michigan. Mailing your application now will be of material assistance in securing the type of hotel accommodations you desire.

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant, when convenient.

Committee on Hotels
Michigan Clinical Institute
c/o Sheraton-Cadillac Hotel
Detroit 31, Michigan
Attention: B. Van De Keere

Please make hotel reservation(s) as indicated below:

.....Single Room(s)

.....Double Room(s) for persons

.....Twin-bedded Room(s) for persons

Arriving March..... hour..... A.M..... P.M.....

Leaving March..... hour..... A.M..... P.M.....

Hotel of First Choice:

Second Choice:

Names and addresses of all applicants including person making reservations:

.....
Name

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Address

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City Zone State

.....
Name

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Address

.....
City Zone State

.....
Name

.....
Address

.....
City Zone State

Date Signature

Address City

Michigan Clinical Institute, 1959



W. S. Jones, M.D.

W. S. Jones, M.D., Menominee, General Chairman of Arrangements for the 1959 Michigan Clinical Institute.



Milton Rosenbaum, M.D.



Muir Clapper, M.D.



Robert M. Heavenrich, M.D.



William D. Robinson, M.D.

Program

TUESDAY, MARCH 10, 1959

12:00 Noon **REGISTRATION**—Top of stairs, Fifth Floor, Sheraton-Cadillac Hotel

P.M.
1:00 **EXHIBITS OPEN**—Fourth Floor, Sheraton-Cadillac Hotel

FIRST ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: J. W. Bunting, M.D., Alpena
Secretary: R. A. Frary, M.D., Monroe

1:35 **WELCOME**

G. B. Saltonstall, M.D., Charlevoix
President, Michigan State Medical Society

C. I. Owen, M.D., Detroit
President, Wayne County Medical Society

GENERAL PRACTICE

1:45 **"The Relationship of the Doctor to the Patient with Specific Emphasis on Psychosomatic Medicine"**

Milton Rosenbaum, M.D., New York, New York
Professor and Chairman, Department of Psychiatry, Albert Einstein College of Medicine; and Director, Psychiatric Service of the Bronx Municipal Hospital Center, New York, New York.

2:15 **Symposium on: "ACUTE CONDITIONS OF THE ABDOMEN"**

Moderator:
Muir Clapper, M.D., Detroit
Professor of Medicine, Wayne State University College of Medicine
Participants:

Charles G. Child, III, M.D., Ann Arbor
Professor and Chairman, Department of Surgery, University of Michigan

Robert M. Heavenrich, M.D., Saginaw
Chairman, Child Welfare Committee, Michigan State Medical Society; Alternate Chairman, Michigan Branch, Academy of Pediatrics; and Chairman, Department of Pediatrics, Saginaw General Hospital

Wm. D. Robinson, M.D., Ann Arbor
Professor and Chairman, Department of Internal Medicine, University of Michigan

3:00 **INTERMISSION TO VIEW EXHIBITS**

4:00 "Who Practices Medicine?"
LEO A. HOEGH, Washington, D. C.
Director, Executive Office of the President, Office of Defense and Mobilization

4:30 "The Federal Government and the Nation's Health"
AIMS C. MCGUINNESS, M.D., Washington, D. C.
Special Assistant for Health and Medical Affairs to Secretary of Department of Health, Education and Welfare

5:00 End of First Assembly



LEO A. HOEGH, M.D.

WEDNESDAY, MARCH 11, 1959

A.M.

8:30 **REGISTRATION**—Top of stairs, Fifth Floor, Sheraton-Cadillac Hotel

9:30 **EXHIBITS OPEN**—Fourth Floor, Sheraton-Cadillac Hotel



AIMS C. MCGUINNESS, M.D.

SECOND ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: J. R. BRINK, M.D., Grand Rapids
Secretary: G. C. WILSON, M.D., Clinton

SURGERY

9:00 "The Cancer Problem"
ISIDOR S. RAVDIN, M.D., Philadelphia, Pennsylvania
John Rhea Barton Professor of Surgery, Medical School, University of Pennsylvania; Director, Harrison Department of Surgery, Research Medical Schools, University of Pennsylvania; Surgeon-in-Chief, University of Pennsylvania Hospital; Vice President for Medical Development, University of Pennsylvania



ISIDOR S. RAVDIN, M.D.

9:30 **THE MICHIGAN CANCER CO-ORDINATING COMMITTEE LECTURE**

(Topic to be announced)

WENDELL G. SCOTT, M.D., St. Louis, Missouri
Chief Consultant to Surgeon General

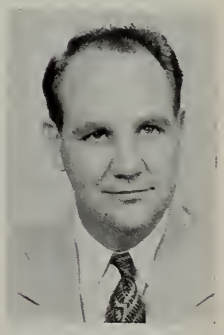
10:00 End of Second Assembly

10:00 INTERMISSION TO VIEW EXHIBITS

10:30 **COLOR TELEVISION PROGRAM**—beamed to the Grand Ballroom, Sheraton-Cadillac Hotel through the co-operation of the staff of Providence Hospital, Detroit, and Smith, Kline and French Laboratories of Philadelphia.

"Care of Traffic Injuries"
Chairman: HOMER M. SMATHERS, M.D., Detroit

Operative Teams to be announced



HOMER M. SMATHERS, M.D.

P.M.

12:30 End of color television program.
Luncheon



JAMES K. STACK, M.D.



WILLIAM L. ESTES, JR., M.D.



JONAS E. SALK, M.D.



THOMAS FRANCIS, JR., M.D.



RAYMOND W. WAGGONER, M.D.



JACK R. EWALT, M.D.

THIRD ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: F. V. WADE, M.D., Flint
Secretary: R. O. NORTHWAY, M.D., Saginaw

TRAUMA

1:45 "The Lumbar Intervertebral Disc"

JAMES K. STACK, M.D., Chicago, Illinois
Associate Professor of Orthopedic Surgery, Northwestern University Medical School

2:15 "Non-penetrating Trauma of the Abdomen

WM. L. ESTES, JR., M.D., Bethlehem, Pennsylvania
Chief Surgeon Emeritus of St. Luke's Hospital; Immediate Past President, American College of Surgeons; Past President, American Association for the Surgery of Trauma

2:45 "Morbidity in Trauma"

DUNCAN A. CAMERON, M.D., Dearborn

3:00 INTERMISSION TO VIEW EXHIBITS

4:00 THE MICHIGAN FOUNDATION FOR MEDICAL AND HEALTH EDUCATION LECTURES

"A Discussion of Vaccination against Poliomyelitis"

JONAS E. SALK, M.D., Pittsburgh, Pennsylvania
Commonwealth Professor of Experimental Medicine; Division of Virus Research Laboratory, School of Medicine, University of Pittsburgh

and

THOMAS FRANCIS, JR., M.D., Ann Arbor
Henry Sewall University Professor of Epidemiology; Chairman of Department of Epidemiology, School of Public Health; Professor of Epidemiology, Department of Pediatrics and Communicable Diseases, Medical School, University of Michigan

5:00 End of Third Assembly

P.M.
8:00 WEDNESDAY, MARCH 11, 1959

Grand Ballroom, Sheraton-Cadillac Hotel

EVENING SESSION

Symposium on "THE DEPRESSIONS"

Moderator: RAYMOND W. WAGGONER, M.D., Ann Arbor
Director, The Neuropsychiatric Institute, University Hospital

Panelists: JACK R. EWALT, M.D., Boston, Massachusetts
Superintendent of the Massachusetts Mental Health Center; Professor of Psychiatry, Harvard Medical School

CAPTAIN GEORGE N. RAINES, M.C., Washington, D. C.
Chief of Psychiatry in Navy and Chairman of Department of Psychiatry, Georgetown University Medical School

ARTHUR H. SCHMALE, M.D., Rochester, New York
Assistant Professor of Medicine and Psychiatry, University of Rochester School of Medicine and Dentistry; Markle Scholar in Medicine and Psychiatry.

* * *

The significant tendency of the depressive reaction to manifest itself by some type of somatic symptoms, often without apparent evidence of the depression itself, makes this topic one of especial importance to every clinician. Recently depression as a conditioning or precipitating factor for the development of organic disease has been given serious consideration. At the same time, depression as a serious complication of physical disease must always be given due consideration.

THURSDAY, MARCH 12, 1959



FOREST D. DODRILL, M.D.

A.M.

8:00 **REGISTRATION**—Top of stairs, Fifth Floor, Sheraton-Cadillac Hotel

9:30 **EXHIBITS OPEN**—Fourth Floor, Sheraton-Cadillac Hotel

FOURTH ASSEMBLY

TENTH ANNUAL MICHIGAN HEART DAY

Sponsored by the Michigan Heart Association
Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: F. D. DODRILL, M.D., Bloomfield Hills
Secretary: S. E. CHAPIN, M.D., Dearborn



JAMES B. BLODGETT, M.D.

HEART AND RHEUMATIC FEVER

8:30 **Panel on "CARDIAC SURGERY"**

The panel will cover the advances in cardiac surgery for acquired heart disease accomplished during the ten years of the existence of the Michigan Heart Association.

Moderator:

FOREST D. DODRILL, M.D., Bloomfield Hills
Chief Cardiovascular Surgery, Harper and Mt. Carmel Mercy Hospitals

Participants:

JAMES B. BLODGETT, M.D., Detroit
Chief Cardiovascular Surgery, Grace Hospital

F. PRESCOTT JORDAN, JR., M.D., Detroit
Medicine

CONRAD R. LAM, M.D., Farmington
Surgeon-in-charge, Division of Thoracic Surgery, Henry Ford Hospital

HERBERT E. SLOAN, M.D., Ann Arbor
Associate Professor of Surgery, University of Michigan



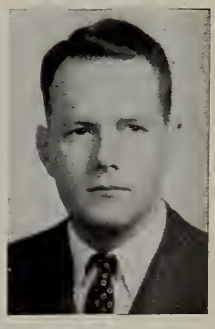
E. PRESCOTT JORDAN, JR., M.D.



CONRAD R. LAM, M.D.

10:00 **End of Fourth Assembly**

10:30 **INTERMISSION TO VIEW EXHIBITS**



HERBERT E. SLOAN, M.D.



SAMUEL J. BEHRMAN, M.D.



HAROLD A. FURLONG, M.D.



DONALD J. JAFFAR, M.D.



CLARENCE E. TOSHACH, M.D.



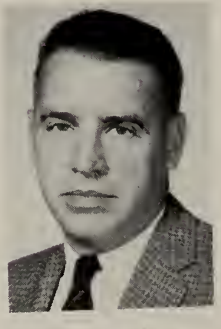
HAROLD HENDERSON, M.D.



JAMES H. BEATON, M.D.



CHARLES S. STEVENSON, M.D.



ROBERT R. CRISSEY, M.D.

A.M.

10:30 **COLOR TELEVISION PROGRAM**—beamed to the Grand Ballroom, Sheraton-Cadillac Hotel through the co-operation of the staff of Providence Hospital, Detroit and Smith, Kline and French Laboratories of Philadelphia

"Problems in Infertility"

Chairman: SAMUEL J. BEHRMAN, M.D., Ann Arbor
Associate Professor of Obstetrics and Gynecology, University of Michigan; Consultant, Ypsilanti State and Sinai Hospitals

Panelists:

HAROLD A. FURLONG, M.D., Pontiac
Chief of Obstetrics and Gynecology, Pontiac General Hospital

DONALD J. JAFFAR, M.D., Detroit
Clinical Associate Professor and Chairman of Department of Urology, Wayne State University Medical School and Affiliated Hospitals; Attending and Head of Department of Urology, Detroit Receiving Hospital; Attending Urologist, Providence Hospital; Member of Executive Committee and the Committee on Postgraduate Education, North Central Section of the American Urological Association, Inc.

CLARENCE E. TOSHACH, M.D., Saginaw
Chief of Department of Obstetrics and Gynecology, Saginaw General Hospital; Past President of Michigan Society of Obstetrics and Gynecology; Member, American Society for the Study of Sterility

"Caesarean Section"

Surgeon:

HAROLD HENDERSON, M.D., Detroit
Associate Clinical Professor of Obstetrics and Gynecology at Wayne State University.
Chief of Obstetrics and Gynecology at Providence Hospital.
Surgeon in the Department of Obstetrics and Gynecology at Harper Hospital
Senior Consultant in Obstetrics at Herman Kiefer Hospital

Discussion Panel:

Chairman: JAMES H. BEATON, M.D., Grand Rapids
President, Michigan Society of Obstetrics and Gynecology; Consultant in Gynecology and Obstetrics, St. Mary's and Blodgett Hospitals; Fellow, American College of Surgeons and Diplomate of American Board of Obstetrics and Gynecology

Participants:

RALPH S. STEFFE, M.D., Flint

CHARLES S. STEVENSON, M.D., Detroit
Professor and Chairman, Department of Obstetrics and Gynecology, Wayne State University College of Medicine; Chief Obstetrician, Herman Kieffer Hospital; Head Attending Gynecologist, Detroit Receiving Hospital

ROBERT R. CRISSEY, M.D., Bay City
Diplomate, American Board of Obstetrics and Gynecology; Fellow, American College of Surgeons

"Management of Inguinal Hernia and Hydrocele in the Infant"

Surgeon:

CLIFFORD D. BENSON, M.D., Detroit
Surgeon-in-Chief, Children's Hospital of Michigan; Attending Surgeon, Harper Hospital; Associate Professor of Surgery, Wayne State University College of Medicine

Discussion Panel:

Chairman: HARDIE B. ELLIOTT, M.D., Flint
Chief of Staff and Consultant in Surgery, McLaren Hospital; Visiting Surgeon at Hurley and St. Joseph Hospitals

Participants:

JAMES W. LOGIE, M.D., Grand Rapids
Consultant in Surgery, Blodgett Memorial and St. Mary's Hospitals; Governor, American College of Surgeons; President-Elect, Kent County Medical Society

E. THURSTON THIEME, M.D., Ann Arbor
Chief of Surgery, St. Joseph Mercy Hospital; Instructor in Surgery, University of Michigan Medical School



CLIFFORD D. BENSON, M.D.



HARDIE B. ELLIOTT, M.D.



JAMES W. LOGIE, M.D.

P.M.
12:30 **End of color television program**

FIFTH ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: CLARKE M. MCCOLL, M.D., Detroit
Secretary: PARK W. WILLIS, III, M.D., Ann Arbor

INTERNAL MEDICINE

1:45 **"Submarine Medicine"**

CAPT. JOSEPH VOGEL, MC, New London, Connecticut
Officer in Charge, Medical Research Laboratory, USN Submarine Base

2:15 **PHARMACEUTICAL LECTURE**
(Subject to be announced)
MR. HARRY J. LOYND, Detroit
President, Parke, Davis & Company

2:45 **"Iodine in Goitre"**
HARRY A. TOWSLEY, M.D., Ann Arbor
Professor of Pediatrics and Communicable Diseases; Associate Director of the Department of Postgraduate Medicine

3:00 **INTERMISSION TO VIEW EXHIBITS**



HARRY J. LOYND



HARRY A. TOWSLEY, M.D.



WALTER J. REICH, M.D.

4:00 to 5:00 **Rehabilitation Symposium on Management of the Hemiplegic**

Moderator: JOSEPH N. SCHAEFFER, M.D., Detroit
Professor and Chairman, Department of Physical Medicine, Wayne State University College of Medicine and Director, Rehabilitation Institute

4:00 **"Medical and Neurological Management of the Patient with Cerebral Vascular Accident"**

MATTHEW S. ATKINSON, M.D., Detroit
Associate to the Department of Neurology, Wayne State University College of Medicine; Member of Attending Staff, Rehabilitation Institute

4:15 **Demonstration of Rehabilitation Techniques**

The following subjects will be covered: Nursing, Physical Therapy, Occupational Therapy, Speech Therapy, Social Consideration, Psychological Approaches, and Vocational Goals.



ERNEST H. WATSON, M.D.

5:00 **End of Fifth Assembly**

No Michigan Clinical Institute Meeting Thursday Evening

FRIDAY, MARCH 13, 1959

A.M.
8:30 **REGISTRATION**—Top of stairs, Fifth Floor, Sheraton-Cadillac Hotel

9:30 **EXHIBITS OPEN**—Fourth Floor, Sheraton-Cadillac Hotel

SIXTH ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: H. E. COPE, M.D., Lansing
Secretary: E. H. HENEVELD, M.D., Muskegon

OBSTETRICS—GYNECOLOGY—PEDIATRICS

9:00 **"Office Gynecology"**

WALTER J. REICH, M.D., Highland Park, Illinois
Professor of Gynecology Cook County Graduate School; Assistant Professor of Obstetrics and Gynecology, Chicago Medical School; Attending Gynecologist Cook County Hospital; Section Chief Gynecological Division Fantus Clinics Cook County Hospital; Attending Gynecologist and Obstetrician Grant Hospital, and former Chairman of the Department; Consulting Gynecologist Oak Forest Infirmary and Oak Forest Tuberculosis Hospital

9:30 **"The Physician and the Adoption of Children"**

ERNEST H. WATSON, M.D., Ann Arbor
Professor of Pediatrics, University of Michigan Medical Center

10:00 **End of Sixth Assembly**

10:00 **INTERMISSION TO VIEW EXHIBITS**

A.M.

10:30 **COLOR TELEVISION PROGRAM**—beamed to the Grand Ballroom, Sheraton-Cadillac Hotel through the co-operation of the staff of Providence Hospital, Detroit and Smith, Kline and French Laboratories of Philadelphia.

"The Office Physical Examination"

Moderator: JOHN D. LITTIG, M.D., Kalamazoo

Practicing Internist, certified by the American Board of Medicine, and Active Staff Member, Borgess and Bronson Hospitals

Panelists:

"Body Build and General Appearance

FRANK D. RICHARDS, M.D., DeWitt

Active Staff Member, St. Lawrence and Sparrow Hospitals, Lansing

"Skin and Appendages"

CHARLES J. COURVILLE, M.D., Detroit

Clinical Assistant Professor of Dermatology, Wayne State University

"Eyes"

ARTHUR E. SCHULTZ, M.D., East Lansing

Fellow of the American Academy of Ophthalmology; Consulting Ophthalmologist, Edward W. Sparrow Hospital, St. Lawrence Hospital, College of Veterinary Medicine, Michigan State University; Member, Child Welfare Committee in Ophthalmology of Michigan State Medical Society and Education Committee, Sparrow Hospital

"Ear, Nose and Throat"

W. KAYE LOCHLIN, M.D., Kalamazoo

Staff, Bronson Methodist and Borgess Hospitals; Instructor in Otolaryngology, Bronson Methodist Hospital School of Nursing

"Neck, Chest, Abdomen Extremities"

FRANKLIN D. JOHNSTON, M.D., Ann Arbor

Professor of Internal Medicine, University of Michigan Medical School and University Hospital

"Rectal Examination"

RALPH M. BURKE, M.D., Detroit

Chief, Department of Proctology, Providence, St. John and Wayne County General Hospitals

"Pelvic Examination"

MAHLON S. SHARP, M.D., Lansing

Chief, Obstetrics and Gynecology, St. Lawrence Hospital

"Neurologic Examination"

ROBERT C. BASSETT, M.D., F.A.C.S., Lansing

Staff member, Edward W. Sparrow Hospital

"Diagnosis by Physical Examination of an Unknown Patient"

J. LEONIDAS LEACH, M.D., Flint

President, Genesee County Chapter, Michigan Academy of General Practice; Member, Public Relations Committee, MSMS; Staff member of Hurley, St. Joseph and McLaren Hospitals

P.M.

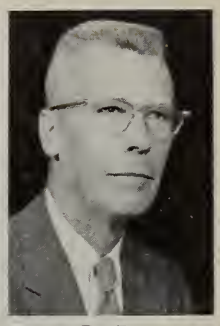
12:30 **End of color television program.**
Luncheon

12:30 **FINAL INTERMISSION TO VIEW EXHIBITS**

1:00 **End of 1959 Michigan Clinical Institute**



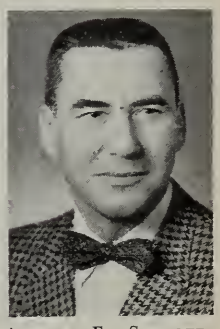
JOHN D. LITTIG, M.D.



FRANK D. RICHARDS, M.D.



CHARLES J. COURVILLE, M.D.



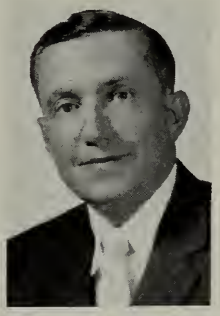
ARTHUR E. SCHULTZ, M.D.



W. KAYE LOCKLIN, M.D.



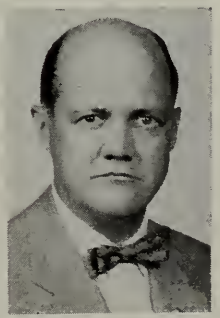
FRANKLIN D. JOHNSTON, M.D.



RALPH M. BURKE, M.D.



MAHLON S. SHARP, M.D.



ROBERT C. BASSETT, M.D.



J. LEONIDAS LEACH, M.D.

MSMS Annual Session



Thirteen past presidents of MSMS recalled former days in harness during their annual luncheon at the MSMS Annual Session.

Standing *(left to right)* C. E. Umphrey, M.D., Detroit; H. R. Carstens, M.D., Chevy Chase, Md.; W. S. Jones, M.D., Menominee; O. O. Beck, M.D., Birmingham; G. W. Slagle, M.D., Battle Creek; H. H. Cummings, M.D., Ann Arbor; Wilfrid Haughey, M.D., Battle Creek; G. C. Penberthy, M.D., Detroit;

Seated *(left to right)* R. J. Hubbell, M.D., Kalamazoo; L. W. Hull, M.D., Detroit; L. Fernald Foster, M.D., Detroit; L. J. Hirschman, M.D., Traverse City; and B. R. Corbus, M.D., Grand Rapids.



Fifty-Year Awards were presented personally to seven of the seventeen eligible doctors of medicine during the first session of the 1958 House of Delegates.

Those present to receive their pins were: Standing *(left to right)* C. J. Ettinger, M.D., Detroit; W. A. Cochrane, M.D., Jackson; D. J. O'Brien, M.D., Lapeer; J. M. Robb, M.D., Detroit. Seated *(left to right)* J. Earl McIntyre, M.D., Lansing; Samuel Glassman, M.D., Detroit; and Wm. J. Cassidy, M.D., Detroit.

Wm. S. Jones, M.D., Menominee, Chairman of the MSMS Big Look Committee, who presented the plans for the new MSMS headquarters building to the 1958 House of Delegates, gets a few pointers about the model building from Architect M. Yamasaki.

The model was on display during the House of Delegates sessions. During the formal presentation, Dr. Jones and Mr. Yamasaki showed colored slides of the building and projected detailed plans of the interior.



Revisited

At the 1958 Michigan State Medical Society Annual Session, held at the Sheraton-Cadillac Hotel, Detroit, a total of 4103 registrants crowded the meeting rooms and exhibit halls from Tuesday noon through Friday noon.

Of the 2339 doctors of medicine present, eighty-one were from outside Michigan—including twenty-eight from Ontario. Three came from the Philippine Islands and one from Cuba.

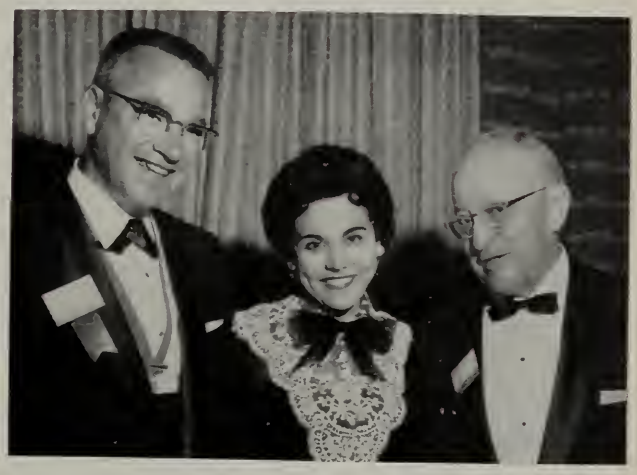
The general practitioners led the list of M.D. registrants with a total of 694, followed by the surgeons with 262; the internists chalked up 160. A surprisingly large turnout of residents and interns accounted for a total of 369. Attendance from other specialty groups was:

Obstetrics and Gynecology	124
Pediatrics	98
Ophthalmology-Otolaryngology	94
Neurology and Psychiatry	83
Pathology	52
Anesthesiology	41
Public Health	37
Dermatology-Syphilology	33
Gastroenterology-Proctology	30
Urology	30
Occupational Health	22
Radiology	22
Specialty Not Listed	107

In all, 222 Michigan communities were represented.

Of the 2339 M.D.'s who attended the Annual Session, Detroit registered the excellent total of 986. Flint came in second with 122, Ann Arbor had 86 and Lansing was fourth with 75.

Seventy-two M.D.'s came from Grand Rapids; Saginaw sent fifty-two; Pontiac had a total of forty-five; Jackson thirty-seven, and Kalamazoo thirty-one. Of the 222 Michigan cities represented at the MSMS convention, 117 were represented by two or more physicians.



During the MSMS Annual Session's Officers Night Dinner Dance, President George W. Slagle, M.D., and Secretary L. Fernald Foster, M.D., accepted with alacrity an opportunity to pose with the evening's attractive guest speaker, Miss Ann Landers, celebrated columnist of the *Chicago Sun-Times*.



Wearing smiles and orchids, three officers of the Michigan State Medical Assistants Society accepted congratulations during the recent Annual Meeting in Detroit. *(Left to right)* Mrs. Reta Shedd, Albion, President-Elect; Miss Donna Hislop, Muskegon, President; and Miss Marlouise Redman, Detroit, Retiring President.

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

HEARING CONSERVATION PROGRAM OBSERVES FIFTEENTH ANNIVERSARY

Michigan's state-local hearing conservation program observed its 15th anniversary this fall. The first hearing screening by a locally employed preliminary technician was done in Isabella County in 1943. Since then, 2,052,942 Michigan school children have been given group tests to find previously undetected hearing losses and the number of preliminary screening technicians has increased to sixty. Technicians now work in all parts of the state and in 1958-59 will screen about 350,000 school youngsters.

During the group screening, a child's hearing is screened with an audiometer, an instrument that measures ability to hear even the faintest tones. Out of every group of 10,000 youngsters, 700 to 1,000 fail the initial screening and are given individual and more detailed tests with the audiometer. This individual testing is done by specially trained threshold technicians, so-called because the tests they administer measure the point (threshold) at which different sounds start to be heard. Threshold technicians also are employed locally and now number twenty-five. Threshold technicians, like group technicians, are usually employed by local health departments but also may work for schools and other local organizations.

Children who fail the threshold test are seen by one of six Michigan Department of Health audiologists, who evaluate each child's hearing loss. About half the youngsters seen by state audiologists need medical attention or further consultant services. The consultant services, if needed, are offered by the audiologists.

Children who need medical attention are referred to one of the otological examination clinics conducted throughout the state in cooperation with the Michigan State Medical Society, or to their personal physician. In the 1957-58 school year, 165 such clinics were held. At the clinics, ear, nose and throat specialists diagnose each child's medical and surgical needs and recommend whatever correction is needed. The recommendations are sent to the child's family and his family physician.

Out of every 10,000 children given group screening, 200 to 275 are examined in otological clinics and 100 to 175 of them are found to need medical or surgical treatment to correct the condition. Another 25 to 100 may have types of hearing loss that require hearing aids and special training. These children are referred to some other agency, such as the Michigan School for the Deaf, for training.

The Michigan Department of Health has helped purchase hearing aids for medically indigent children since 1947 and up to this fall assisted in the purchase of 463 hearing aids. Courses to teach children how to wear and use a hearing aid have been conducted at the Michigan School for the Deaf since 1950.

When Tim came to the attention of the regional audiologist, he was "saving up" for a hearing aid "so I can hear like other kids." Over an eight-month period, Tim had saved 513 pennies by missing movies and postponing ice cream cones. This left him only 34,000 pennies to go. A hearing aid was purchased for Tim, and he kept the 513 pennies.

MEDICAL USE OF HYPNOSIS

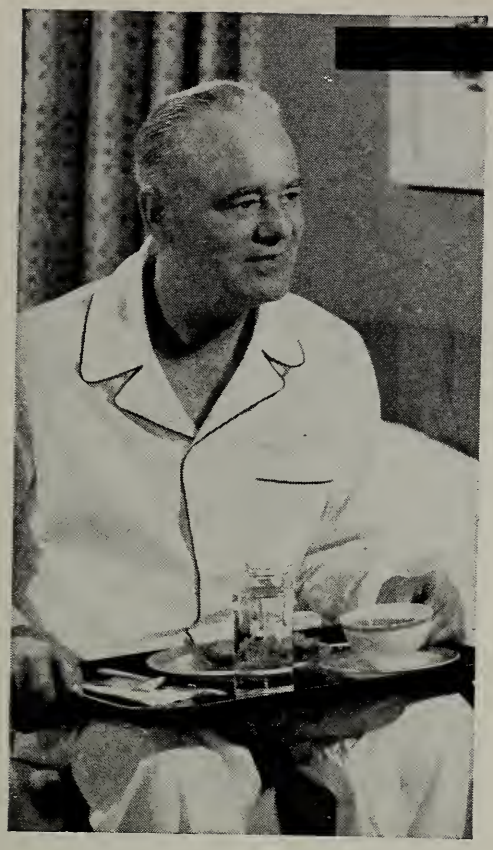
The history of hypnosis since the time of Mesmer has been characterized by a series of curious cycles alternating between great interest and almost complete rejection. This phenomenon in itself is an indication of the somewhat mystical aura that has surrounded the subject throughout the years. Recently, owing to a concatenation of circumstances, there has been a reawakened interest in hypnosis. In part, the experiences of World War II contributed to this interest.

The Council on Mental Health of the American Medical Association has for some years received numerous inquiries from physicians throughout the United States relating to the subject of hypnosis, many of them asking for information regarding training programs in this area. A group of serious workers in medicine has been reporting on various aspects of the utilization of hypnosis. In addition, the dental profession has become interested in its use in relation to its own practice. Concurrently, "fringe" groups have been exploiting hypnosis through the press, radio, and television. Overpopularization in this as in other areas of medicine usually leads to oversimplification. Overdramatized events are seized on to the general detriment of sober scientific work.

A subcommittee of the British Medical Association has issued an excellent report, which appeared in the *British Medical Journal,* April 23, 1955, and with which the Council is in essential agreement.

In view of the total situation, the Council on Mental Health constituted itself as a committee of the whole to study the medical use of hypnosis. Some outstanding authorities in this field were invited to participate in several committee meetings, and in addition others were requested to give their opinions through correspondence. The Council expresses its thanks and appreciation to them for their excellent collaboration in this study. It is to be emphasized that the responsibility for this report and the recommendations contained therein are those of the Council.—*J.A.M.A.,* Sept. 13, 1958.

JMSMS



IN DEBILITATING DISEASE

Patients receiving

NILEVAR®

Eat more...
Feel better...
Recover faster

Compared to control patients, those receiving Nilevar (brand of norethandrolone) have repeatedly demonstrated more rapid and more complete recovery from serious acute illness and increased comfort and well-being in chronic illness.

A multitude of case histories are now adding individual clinical color to the earlier controlled investigations which defined the actions of Nilevar as an effective aid in reversing negative nitrogen balance and in building protein tissue.

In typical case reports such gratifying comments as these appear:

Underweight —"Appetite considerably increased within one week. Sense of well-being and vigor increased along with increased appetite."

Prematurity (Birth weight: 2 pounds, 4 ounces) — "Gradual improvement in appetite and capacity for formula. . . . Excellent progress and weight gain for a very immature infant."

Carcinoma of the Uterus —"Within four days appetite became excellent, took full diet. . . . More ambition while on Nilevar. Enjoys life. Takes part in church and other social affairs."

Third Degree Burn —". . . soon began eating all that was offered. . . . Began to show signs of hope for recovery. . . . Perhaps one of the greatest changes was in the appearance of his wounds which were so very much improved."

The dosage for adults is 20 to 30 mg. daily in single courses no longer than three months. For children the daily dosage is 0.5 mg. per kilogram of body weight, in single courses no longer than three months.

Nilevar is supplied in tablets of 10 mg. and ampuls of 25 mg. (1 cc.).

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE



NEWS MEDICAL

MICHIGAN AUTHORS

Murray R. Abell, M.D., Ann Arbor, is the author of an article entitled "Cervicocolpitis (Vaginitis) Emphysematosa," published in *Surgery, Gynecology and Obstetrics,* November, 1958.

R. J. Vastine, Jr., M.D., Niles, is the author of an original article, "Preventive and Aviation Medicine in Private Practice," published in JAMA, November 1, 1958.

Ian M. Thompson, M.D., and **Arjan D. Amar, M.D.,** Ann Arbor, are the authors of an article entitled "Clinical Importance of Ureteral Duplication and Ectopia" read before the Section on Urology at the 107th Annual Meeting of the American Medical Association, San Francisco, June, 1958, and published in the *Journal of the American Medical Association,* October 18, 1958.

E. A. Irvin, M.D., Detroit, is the author of an article entitled "Uses of Oxygen in Industrial Medicine," presented at National Cylinder Gas Company Annual Meeting, September 19, 1957, Sheraton Hotel, Chicago, and published in *Industrial Medicine and Surgery,* October, 1958.

William F. Veling, M.D., Detroit, is the author of an article entitled "Miniature R-Wave Cardiac Monitor—Early Detection of Cardiac Arrest During Surgical or Anesthetization Procedures," published in *Journal of the American Medical Association,* October 11, 1958.

Kenneth R. Magee, M.D., Ann Arbor, is the author of an article entitled "The Treatment of Parkinsonism," published in *GP,* October, 1958.

Robert D. Larsen, M.D., and **Joseph L. Posch, M.D.,** Detroit, are the authors of an article entitled "Nerve Injuries in the Upper Extremity," published in the AMA *Archives of Surgery,* October, 1958.

D. Emerick Szilagyi, M.D., Lloyd C. France, M.D., Roger F. Smith, M.D. and **John G. Whitcomb, M.D.,** Detroit, are the authors of an article entitled "The Clinical Use of an Elastic Dacron Prosthesis," published in the AMA *Archives of Surgery,* October, 1958.

Brock E. Brush, M.D., John H. Wylie, M.D., Joseph Beninson, M.D., Melvin A. Block, M.D. and **Thomas J. Heldt, M.D.,** Detroit, are the authors of an article entitled "The Treatment of Postmastectomy Lymphedema," published in the AMA *Archives of Surgery,* October, 1958.

Rodman E. Taber, M.D. and **Luis Tomatis, M.D.,** Detroit, are the authors of an article entitled "Experimental and Clinical Utilization of a Prosthesis for Replacement of the Trachea," read at the 15th Annual Assembly of the Central Surgical Association, Columbus, Ohio, February, 1958, and published in the AMA *Archives of Surgery,* October, 1958.

D. L. Hinerman, M.D., Ann Arbor, is the author of an article entitled "Our Challenge for the Future of Medical Education," published in the *University of Michigan Medical Bulletin,* August, 1958.

A. C. Furstenberg, M.D., Ann Arbor, is the author of an article entitled "History and Purposes of the Teaching Institute," published in the *University of Michigan Medical Bulletin,* August, 1958.

Winthrop N. Davey, M.D., Ann Arbor, is the author of an article entitled "The Victor Vaughan Society in the University of Michigan Medical School," published in the *University of Michigan Medical Bulletin,* September, 1958.

* * *

The Detroit Medical News for Saturday, September 27, 1958, was the Dedication Number for the New David Whitney House. It has a heavy tinted cover with a very good drawing of the new house. It is a 36-page issue, well printed and with numerous pictures of the building, a President's Page with a picture of Clarence I. Owen, M.D., a list of all the Past Presidents with pictures of those living, the Dedication Program, together with the list of Officers, Building Committee and Dedication Committee. The present President of the American Medical Association, Gunnar Gunderson, M.D., is pictured with his address. There is also a historical sketch by William J. Stapleton, Jr., M.D., and comments on the New David Whitney House by Roger V. Walker, M.D. In all, it is a very satisfactory and a most interesting number produced for preservation.

* * *

The Indiana State Medical Society Journal for September, 1958—The Convention Issue—shows a complete departure from its former covers. The Journal cover formerly carried an outline of the state of Indiana with a listing of the more important articles. This new number has a small outline of the state of Indiana at the left, and a large beautiful colored picture occupying two-thirds of the cover. It is most attractive, and the editors are to be congratulated on the new appearance of the Indiana Journal.

* * *

Increases in the cost of hospitalization and doctor care are inexorable and unyielding. Because of this, there must inevitably be increases in the cost of Blue Cross and Blue Shield. The trend is nationwide, and is causing concern among all policyholders. These rising costs. as

(Continued on Page 1752)

Mazola® Corn Oil...a palatable food effective in the management and control of serum cholesterol levels

Extensive clinical tests show that when the diet contains an adequate amount of Mazola Corn Oil, serum cholesterol levels tend to be normal... high blood cholesterol levels are lowered, normal levels maintained.

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Here is a therapy easy for you to prescribe, easy and pleasant for your patients to follow.

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Mazola Corn Oil is sold in grocery stores throughout the country, is available everywhere. Its comparatively low cost makes it as economical as it is effective.

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(Continued from Page 1750)

well as the desire for more complete medical expense coverage, have prompted labor unions to consider union-sponsored insurance plans. Any widespread move of this sort on the part of labor would seriously weaken Blue Cross and Blue Shield. Much of the misunderstanding which now exists could certainly be helped by free discussion between the leaders of labor and medicine on local levels. This will be done in Westchester County in the near future. Competition from private insurance companies in the health insurance field is also weakening Blue Cross and Blue Shield. In many cases, this is due to lower rates charged by these companies. These low rates are possible because several factors such as cancellable policies, age restrictions, and careful selection of their clients. Consequently, Blue Cross and Blue Shield are being left with an increasingly higher proportion of poorer risks. In addition, doctors themselves are weakening the plans by their willingness to hospitalize or treat patients in hospitals unnecessarily. A rotating committee of staff physicians in hospitals could supervise the violations that do occur and advise the offending physician of his duty to organized medicine. Since it is evident now that the public demands prepaid health insurance in some form physicians must solve their health insurance problems or face the alternative of government supervised insurance.—From *Westchester Medical Bulletin,* March, 1958.

* * *

Max Karl Newman, M.D., Detroit, gave a lecture on September 17, 1958, at Mercy Hospital, Port Huron, entitled "Muscular Dystrophies and Atrophies." "Social Gerontology—Its Application in the Management of the Physical Disabilities in Adult Life," was the title of a lecture he gave before the Michigan Society for Crippled Children and Adults, Bancroft Hotel, October 9, 1958. Also on the same day, he gave a lecture on "The Organization and Direction of a Muscular Dystrophy Clinic" at the Winona Hotel, Bay City, Michigan, at a meeting of the Muscular Dystrophy Association.

* * *

The Central Association of Obstetricians and Gynecologists held its twenty-sixth annual meeting at the Leamington Hotel, Minneapolis, on October 2, 3 and 4, 1958. Harold C. Mack, M.D., Detroit, led a discussion on the paper, "Prophylaxis of the Postsurgical Menopause: Estradiol Pellet Implantation," authored by Samuel D. Soule, M.D., and Robert Burnstein, M.D., of St. Louis. Russell J. Paalman, M.D., Grand Rapids, and Thomas W. McElin, Evanston, Illinois, presented a paper entitled "Cervical Pregnancy." Lee B. Stevenson, M.D., and C. Paul Hodgkinson, M.D., Detroit, also presented a paper entitled "Clinical Evaluation of Chlorothiazide (Diuril)."

* * *

The thirty-second Annual Spring Congress in Ophthalmology and Otolaryngology and Allied Specialties will be held at the Gill Memorial Eye, Ear and Throat Hospital at Roanoke, Virginia, April 6-11, 1959. At numerous times during this long course of memorial congresses

(Continued on Page 1755)

(Continued from Page 1752)

speakers from Michigan have been invited. This year there are two: Windsor S. Davies, M.D., and A. D. Ruedemann, M.D., both of Detroit. In the past, the Foundation has published an announcement listing the attending physicians at the previous or several previous conferences. This year, instead, the Elbyrne G. Gill Eye and Ear Foundation is publishing a Bulletin. The September 1958 issue (Volume 1, Number 3) contains the announcement as well as several very interesting papers. There are thirty-six pages.

* * *

Medical Research Grants.—A total of $139,613.47 was accepted by the University of Michigan Medical School from the estate of William A. Spitzley, M.D., an 1897 Medical School graduate, with $136,378.09 for the Dr. Charles B. de Nancrede Memorial Fund and $3,235.38 for the Frederick G. Novy Fellowship for Research in Bacteriology.

The first-year payment of $31,460 on a five-year commitment from the W. K. Kellogg Foundation, Battle Creek, was accepted by the Regents. The grant is for research in public health practice under the direction of Dr. Hugh B. Robins.

Lawrence J. Montgomery, Battle Creek, has made another of his many contributions to the University with a gift of $25,000 for the Lawrence J. Montgomery Fund which is used to provide assistance for deserving medical students to further their education and research.

* * *

The Chicago Medical Society's Annual Clinical Conference, to be held March 2, 3, 4 and 5, 1959, at the Palmer House, Chicago, will present an outstanding program encompassing both "breadth and depth," according to Coye C. Mason, M.D., chairman of the Executive Committee.

* * *

American Board of Obstetrics and Gynecology.—The next scheduled examinations (Part II), oral and clinical for all candidates will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from May 8 through 19, 1959. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I examinations will be notified of their eligibility for the Part II examinations as soon as possible.

Current Bulletins of the American Board of Obstetrics and Gynecology, outlining the requirements for application, may be obtained by writing to the Secretary: Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

Wanted: Old Photos of Physicians Driving Ancient Cars.—The Illinois State Medical Society is preparing an exhibit centered around an *Illinois Medical Journal* article which told of the role of physicians in the development of the automobile in the United States at the turn of the century.

To help illustrate this exhibit, the Society will appreciate the loan of old photographs showing physicians at the wheels of cars of 1900-1910 vintage. Scenes showing





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difficulties on the road, or poor highway conditions, are especially desired. Enlargements will be made of these photographs and the originals returned undamaged.

Photographs should be accompanied by a memo giving the name and town of the physician, whether living or deceased, and the make and year of the automobile. They should be sent to Mr. John A. Mirt, Illinois State Medical Society, 185 North Wabash Avenue, Chicago 1, Illinois.

* * *

Jerome W. Conn, M.D., of The University of Michigan Medical Center, was selected as one of two nationally prominent physicians to give the annual Shannon Lectures in Medicine, one of the country's newest and most distinguished lectureships in the field of internal medicine.

Dr. Conn and Dr. George W. Thorn of Harvard University each gave a series of four lectures on the general subject of endocrinology and metabolism. The lectures were sponsored by the Shannon West Texas Memorial Hospital and were given at *San Angelo, Texas,* October 17 and 18, 1958.

In recent months, Dr. Conn has been chosen for two other professional honors. In June, he gave the annual Banting Memorial Lecture, highest scientific honor of the American Diabetes Association. He also delivered the Chalmers Lyons Memorial Lecture at the August meeting of the American Society of Oral Surgeons.

Dr. Conn graduated from the University of Michigan Medical School in 1932. He was appointed professor of internal medicine in 1950 and is the director of Endocrinology and Metabolism at the University of Michigan Medical Center.

* * *

Frederick A. Coller, M.D., former chairman of the Department of Surgery at The University of Michigan Medical Center, presented the annual Dallas E. Phemister Lecture, October 7, 1958, at the University of Chicago. The lecture honors the memory of Dr. Phemister, former president of the American Surgical Society. Dr. Coller's topic was "Science and Surgery."

* * *

Prisoners X-rayed.—A high rate of tuberculosis is being found among Jackson County jail prisoners in a new chest x-ray program. Started last July by the Jackson County Tuberculosis Association, the program has detected four cases of active tuberculosis. Three other TB suspects have been found. Prisoners are x-rayed when they enter the jail unless records of the county health department show the prisoners have been x-rayed within the past year. Nearly 300 persons have been x-rayed so far.

* * *

Polio Iron Lung Grant.—To continue its work in the coming year on procedures to enable iron lung patients ultimately to return to near normal lives, a March of Dimes grant of $99,113 has been made to support the Poliomyelitis Respiratory and Rehabilitation Center of The University of Michigan Medical Center.

Announcement of the grant was made jointly October 8 by A. C. Kerlikowski, M.D. director of University

(Continued on Page 1758)

Of course,  *women like "Premarin"*

Therapy for the menopause syndrome should relieve not only the psychic instability attendant the condition, but the vasomotor instability of estrogen decline as well. Though they would have a hard time explaining it in such medical terms, this is the reason women like "Premarin."

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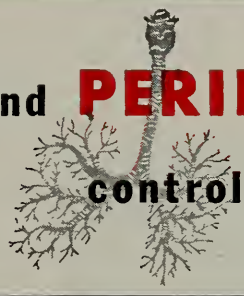
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Alcohol	8%

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(Continued from Page 1756)

Hospital, and Basil O'Connor, president of the National Foundation (originally the National Foundation for Infantile Paralysis). Dr. David G. Dickinson is medical director of the Rehabilitation Center.

The center, to which the most severely involved and difficult polio cases are sent for care, conducts a threefold program of treatment, teaching, and research. The care part of the program consists of intensive effort at rehabilitation of these severely disabled patients. Many of those admitted to the Center in iron lungs have been able to return to their homes no longer needing breathing aid from respirators. Others require respirators only a part of the day.

In discussing the home care program of these patients, Dr. Dickinson pointed out that their safety and well-being depend on three factors: the need for expert evaluation of their status before discharge to make certain they can be cared for at home; a carefully planned and controlled breathing aid program to minimize relapse; and periodic readmission to the Center for a few days to re-evaluate their condition.

The U-M Center is also engaged in research projects concerned with various aspects of respiratory failure due to polio and other diseases.

* * *

The Southeastern Regional Meeting of the United States Section, International College of Surgeons, will be held in Miami Beach, Florida on January 4-7. The sessions will take place in the Americana Hotel. Among the guest speakers will be the following men from Michigan: James D. Fryfogle, M.D., Bruce Proctor, M.D., and Richard E. Straith, M.D., Detroit.

* * *

Harold B. Latourette, M.D., chairman of the University of Michigan Cancer Research Institute, speaking at a meeting of the district training school of the American Cancer Society on Thursday, October 16, 1958, said:

"Cancer is a complex family of diseases made up of perhaps 200-300 different clinical entities. These diseases differ widely in their characteristics and prognosis but all have the same fundamental basis, the uncontrolled growth of abnormal cells . . . Research on the cause, nature, detection and treatment of cancer must continue on ever-widening fronts as we learn more about these diseases . . . Scientists are constantly improving the methods of detecting and treating the diseases . . . Using the best methods of treatment now available, many patients can be cured . . . The final understanding and control of the whole family of diseases we call cancer will probably come only when we understand and control growth and life itself."

* * *

Howard B. Latourette, M.D., associate professor of radiology at the University of Michigan Medical Center, has been appointed to a five-man committee of the American Institute of Biological Sciences to review the Atomic Energy Commission's cancer program.

The committee will study existing programs and advise the AEC regarding future uses of radioactive materials in the fight against cancer. It will also evaluate current cancer activities carried out at AEC laboratories and in university research centers throughout the United States.

(Continued on Page 1760)

To awaken new life following illness



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Following illness: Convalescence from debilitating illness or major surgery is often marked by a low level of serum protein, and excessive nitrogen excretion. The lengthy recovery period which results can be significantly shortened by administration of a protein-retaining androgen-estrogen combination. Combandrin provides the most efficient nitrogen-retaining substances known. It aids recovery from illness, surgery and trauma primarily because of its ability to overcome excessive protein excretion—to help correct a major cause of retarded convalescence.

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TODAY'S CHALLENGE!

Doctors are generally agreed that the best hope of saving lives from cancer is early detection and prompt, proper treatment. Great progress has been made in the last ten years: the saving now of 1 in 3 compared with 1 in 4, as more and more people are seeing their doctors *in time*.

But with present knowledge and existing facilities, it is possible *today* to save *1 in 2* cancer patients. This is the target of the American Cancer Society's professional and public education programs.

The Society offers doctors a variety of free services: *Literature:* two bi-monthly magazines; *Films:* 200 available on loan, including a series of kinescope films covering practically every clinical phase of cancer; *Slides:* (In color) Characteristic early lesions in sites of greatest incidence; *Exhibits:* for medical meetings and conventions, on special aspects of diagnostic and therapeutic problems.

In its public education program, the Society uses every effective communication medium to urge people to have annual health checkups and to go to their doctors promptly at the appearance of a danger signal.

The challenge will be met. As more and more doctors' offices become "cancer detection centers," and as more and more people see their physicians regularly, the closer will come the day when half of our cancer patients will be saved. The know-how for saving the remaining half is still being sought in our research laboratories. Ultimately that challenge, too, will be met.

AMERICAN CANCER SOCIETY



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(Continued from Page 1758)

George L. Waldbott, M.D., Detroit, was invited by the Swedish Medical Society to present a paper entitled, "Fluorosis from Drinking Water," at their meeting in Stockholm, November 4, 1958. In October, at a meeting of the International Congress of Allergy in Paris, he also presented a paper on unusual complications of bronchial asthma.

* * *

The Dermatological Section of the Michigan State Medical Society, at a meeting on Wednesday, October 1, 1958, elected the following officers: *Chairman*—Robert Grekin, M.D. of Kalamazoo; *Secretary*—Alice E. Palmer, M.D., of Detroit.

* * *

Karl Newman, M.D., Detroit, was visiting professor for the day at the Hamilton General Hospital, Hamilton, Ontario. He carried on a clinical conference with respect to the general staff of the hospital on October 23, 1958. In the evening, he addressed the Medical Society and Paramedical Staff on the topic, "Management of Muscular Dystrophy and Associated Myogenic Diseases."

* * *

Mouth-to-mouth resuscitation, believed to be the best system available, is now being taught at Brooke Army Medical Center, Fort Sam Houston, Texas, to all personnel at the Army Medical Service School, including assigned instructors and administrative personnel, demonstration troops, and students, whether officers or enlisted men or women. Studies conducted during the past few years have proved the superiority of this procedure in comparison with other schools of artificial respiration now in common use.

In its simplest form, the operator removes any mucous or foreign matter from the victim's throat and mouth, with his fingers. He then takes a firm hold on the patient's lower jaw, tilts the head back by pulling on the jaw, pinches the patient's nostrils shut and, after taking a breath, places his mouth over the patient's mouth and exhales until he sees the chest of the patient lift. The operator then takes his next breath while listening for the patient's exhalation. The operator breathes about twelve times a minute for adults and about twenty times a minute for children.

Advantages of the process are many. Mouth-to-mouth resuscitation forces more air into the patient's lungs; it is more easily controlled by the operator; the operator can continue for a long period of time with no ill effects; it is effective with any asphyxiated patient; no equipment is needed for maximum results.

A demonstration of this method was featured by the Association of the U. S. Army at the Sheraton-Park Hotel, Washington D. C. in October, 1958.

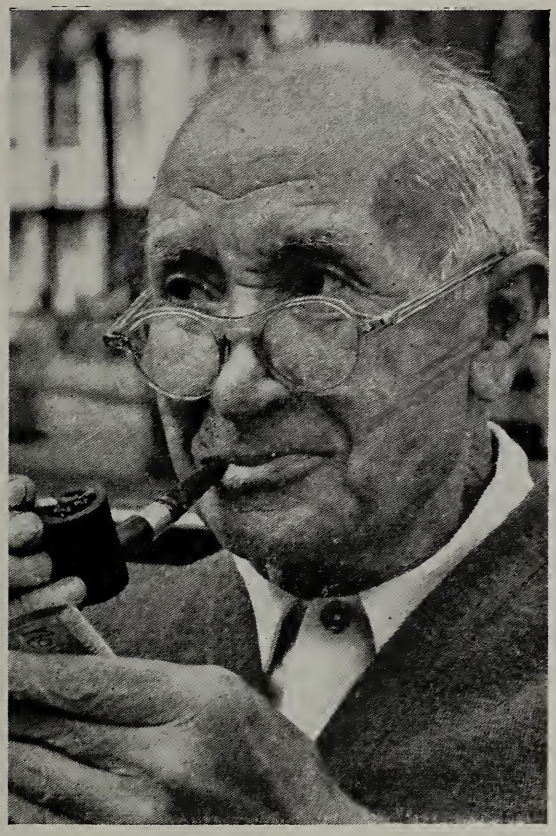
* * *

About sixty physicians and officials of the Michigan branch of the American Cancer Society attended a two-day cancer program at The University of Michigan Medical Center, October 31 and November 1.

University doctors and scientists presented eight lectures showing the progress being made in the treatment diagnosis and understanding of cancer. Their topic

(Continued on Page 1762)

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(Continued from Page 1760)

included modern chemotherapy and the possible relationship between viruses and cancer.

The visitors also toured research facilities at the Medical Center and visited the Ford Nuclear Reactor on North Campus.

Chairman for the two-day meeting was Dr. Howard B. Latourette, head of the Cancer Research Institute at the University.

* * *

Mental Health Research Building.—Approval for a project budget of $1,350,000 for the construction of a Mental Health Research Building was given by the Regents of The University of Michigan, October 24, 1958. Funds for the building will come from a state appropriation and from the U.S. Public Health Service.

* * *

William D. Robinson, M.D., a member of The University of Michigan Medical School faculty since 1944, was appointed chairman of the Department of Internal Medicine, effective October 1, 1958.

He succeeds Cyrus C. Sturgis, M.D., who resigned as chairman in February, 1957, to devote full time to the practice of medicine. Paul S. Barker, M.D., has served as acting chairman during the intervening period.

Born in Hoosac, New York, on August 8, 1911, Dr. Robinson is a graduate of Albion (Michigan) high school and received a Bachelor of Arts degree from Albion College in 1931. In 1934, he received his Doctor of Medicine degree from the University of Michigan Medical School.

After interning at University Hospital, he was an assistant resident there in 1935-36, then became an instructor in medicine from 1936 to 1938 and was a research fellow at the University of Michigan from 1938 to 1940.

Dr. Robinson then left the University of Michigan for four years and was with the International Health Division of The Rockefeller Foundation. For the 1940-41 year, he was a special fellow at Vanderbilt University, was a member of a health commission which made a nutrition survey in Madrid, Spain, in 1941 and then until 1943 was a staff member in charge of developing a nutrition section in Mexican Federal Department of Health.

Dr. Robinson during the 1943-44 year was an instructor in medicine at Vanderbilt University and also was in charge of the Investigative Section of the Tennessee-Vanderbilt Nutrition Project.

He returned to the University of Michigan as an assistant professor of internal medicine in 1944, was promoted to associate professor in 1946 and since 1952 has held the rank of professor. From 1944 to 1953, Dr. Robinson was in charge of the Rackham Arthritis Research Unit.

* * *

Medical Credentials Repository.—On July 1, 1958, the services of a Central Repository for Medical Credentials became available to doctors of the world. During war and national uprisings, medical records are often lost or destroyed. Because of this, many doctors are today

(Continued on Page 1764)

To awaken new life during the changing years



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During the changing years: Combined therapy offers a dual approach in hormonal therapy for the male and female climacteric. Androgen-estrogen steroids are additive in hormonal suppression of the over-active gonadotropic functioning of the pituitary. In patients failing to respond adequately to estrogens, or in those who develop unpleasant hyperestrinism, or masculinizing symptoms—combined therapy permits successful control with minimal side effects.

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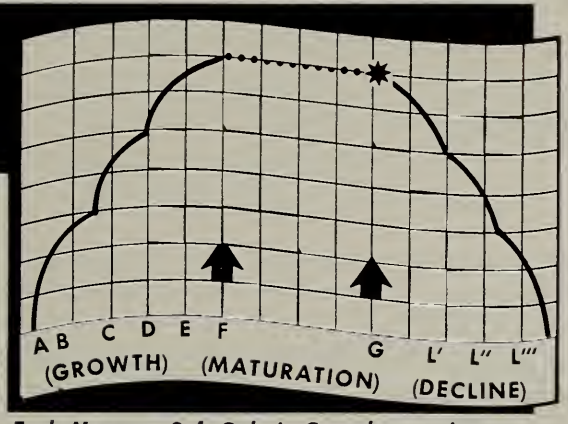
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Ethinyl Estradiol	0.01 mg.	Riboflavin	2 mg.
Ferrous Sulfate	50 mg.	Pyridoxine Hcl.	0.3 mg.
Rutin	10 mg.	Niacinamide	20 mg.
Ascarbic Acid	30 mg.	Manganese	1 mg.
B-12	1 mcg.	Magnesium	5 mg.
Malybdenum	0.5 mg.	Iadine	0.15 mg.
Cobalt	0.1 mg.	Potassium	2 mg.
Copper	0.2 mg.	Zinc	1 mg.
Vitamin A	5,000 I.U.	Choline Bitartrate	40 mg.
Vitamin D	400 I.U.	Methianine	20 mg.
Vitamin E	1 I.U.	Inosital	20 mg.
Cal. Pantothenate	3 mg.		

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*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

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1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

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(Continued from Page 1762)

unable to utilize their professional skills because of the loss or destruction of their original credentials and a lack of a protective service in which authenticated copies could be deposited. Therefore, The World Medical Association has undertaken a program to assure that the doctor will always be able to prove himself medically trained and fully accredited to practice medicine.

In the United States, the lifetime cost of the service on a one-payment basis to the newly graduated doctor is approximately $60.00. An actuarial schedule has been established for doctors in the various age groups. A ten-year service rate is also available.

Repository officials suggest that the credentials deposited include official medical school record, medical diploma, and specialist credentials. American doctors should *not* send their original credentials, but should send photostatic, microfilm, or notarized copies of their original credentials.

Requests for forms and additional information in regard to the Central Repository for Medical Credentials is available from The World Medical Association, 10 Columbus Circle, New York 19, New York.

* * *

The Ford Foundation announced grants totalling more than half a million dollars to The University of Michigan on Tuesday, October 21, 1958.

The funds will be used as follows:

. . . $350,000 for a study on economic and social factors in aging, directed by Dr. Nathan Sinai, M.D., of the University of Michigan Bureau of Public Health Economics

. . . $195,000 for a national study of family income, with special emphasis on low-income groups, directed by James Morgan, Ph.D. of the University of Michigan Survey Research Center

. . . $ 24,850 for analysis of research and experimental programs in youth development, including juvenile delinquency, directed by Stephen Withey, Ph.D., and Ronald Lippitt, Ph.D., of the University of Michigan Institute for Social Research. The $350,000 for a five-year study to determine health problems of the aged on a nation-wide basis and offer suggestions for an attack on these problems.

The grant emphasizes the training of advanced graduate students as researchers in public health economics, sociology, and social work. These students will work with senior staff members of the project, training in the department and participating in field studies.

The problems of aging have received increasing attention from U-M specialists over the past fifteen years, since the Bureau of Public Health Economics made its first study of health problems of the aged. About 15 million people are age sixty-five or over. By 1975 he estimates the number will exceed 21 million. Attempts to solve the problems of this group have been made on national, state and local levels by public agencies. On

(Continued on Page 1766)

Annual Clinical Conference

CHICAGO MEDICAL SOCIETY

March 2, 3, 4, and 5, 1959

Palmer House, Chicago

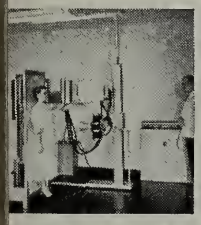
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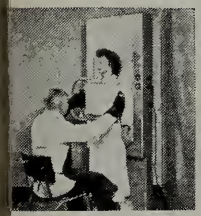
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(Continued from Page 1764)

a national basis, private agencies such as Blue Cross, Blue Shield, and the insurance industry have offered solutions.

The family income study will run from 1959 through 1961. Besides Morgan, principal investigators on the project will be Prof. Wilbur J. Cohen of the School of Social Work; Prof. Richard A. Musgrave, Ph.D., of the Economics Department; and Martin David, graduate student in economics and fellow in the Research Seminar in Quantitative Economics.

* * *

Joseph Shaiken, M.D., Milwaukee, Wisconsin, Associate Professor of Clinical Medicine, Marquette University Medical School, was chosen as President-Elect of the American College of Gastroenterology, at the annual meeting of the College, held October 19, in New Orleans, Louisiana. He will assume the presidency at the annual meeting to be held in Los Angeles, California., in September, 1959.

Frank J. Borrelli, M.D., New York, N. Y., who was selected President-Elect in Boston in 1957, assumed the presidency of the College at the annual dinner-dance held at the Jung Hotel this Tuesady evening. He will succeed C. Wilmer Wirts, M.D., of Philadelphia, Pa.

Other officers elected were: Vice Presidents—Henry Baker, M.D., Boston, Mass.; Louis Ochs, Jr., M.D., New Orleans, La.; Edward J. Krol, M.D., Chicago, Ill.; Theodore S. Heineken, M.D., Glen Ridge, N. J.; Secretary—Joseph R. Van Dyne, M.D., Forest Hills, N. Y.

* * *

Grants and gifts to Wayne State University Medical College have been received from the following:

Grants from the U.S. Public Health Service, National Institutes of Health, will be used in various fields.

From the Michigan Heart Association, a total of $53,050.50 will be used to continue heart research. Part of the total will be used to continue work simplification studies for the cardiac housewife under the direction of Dr. Frances G. Sanderson of the College of Liberal Arts.

The National Science Foundation gave $31,000 for three research projects in the College of Liberal Arts. At the same time $45,500 was accepted from the McGregor Fund. The department of psychiatry of the College of Medicine will get $24,000 of the total while $21,500 will be used in support of a program in psychotherapy over a two-year period under the direction of Dr. Ross Stagner, College of Liberal Arts.

The Kresge Foundation presented $31,000 to continue the research program in neurological sciences under the direction of Dr. E. S. Gurdjian of the College of Medicine. The Receiving Hospital Corporation also gave the sum of $25,000 to be added to the fund to defray salaries of individuals employed in departmental research activities at the College of Medicine.

(Continued on Page 1768)

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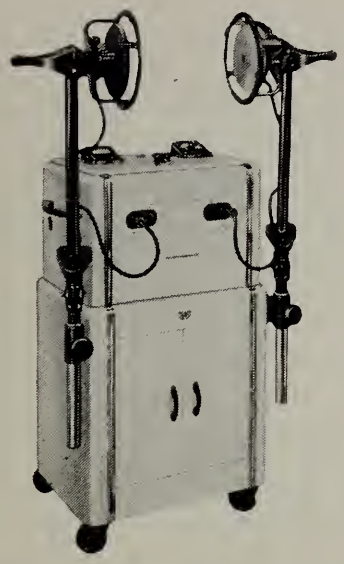
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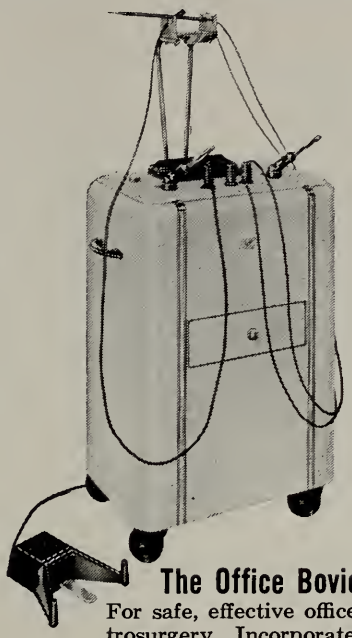
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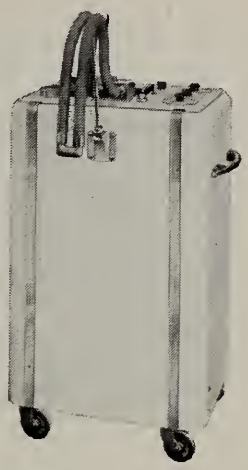
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(Continued from Page 1766)

Gifts and grants of more than $693,700 were accepted by the Wayne State University Board of Governors at its September meeting.

The largest amount, $516,207, came from the U.S. Public Health Service, National Institutes of Health. The total is made up of 28 different grants for research at the Colleges of Medicine, Liberal Arts, Nursing, Education and at the School of Social Work.

The American Cancer Society has also allocated $46,303 to continue studies of experimental pulmonary cancer in animals at the College of Medicine. Another $36,666 institutional research grant from the American Cancer Society is to be administered by a University-wide cancer committee.

The U.S. Office of Vocational Rehabilitation has given two grants totaling $56,214 to continue traineeships in rehabilitation counseling and occupational therapy in the College of Education.

Gifts and grants of about $396,300 were approved at the Wayne State University Board of Governors' October meeting.

The U.S. Public Health Service, National Institutes of Health, awarded grants totaling $223,933. The largest grant was $112,644 to continue advanced training for professional nurses under the direction of Dean Katherine Faville, of the College of Nursing.

A total of $32,349 was awarded to continue undergraduate training in psychiatry under the direction of Dr. John M. Dorsey, of the College of Medicine. "Research in Absorption of Amino Acids from a Thiry Loop in Man" will be continued by Dr. Aline Orten, of the College of Medicine, aided by a $17,503 grant.

Dr. E. S. Gurdjian, of the College of Medicine, received $17,422 to continue his "Study of Aneurysms and Acute Subarachnoid Hemorrhage." Other grants were given to Dr. Carl Djerassi, Dr. Calvin L. Stevens and Dr. Lida H. Mattman, of the College of Liberal Arts, and to Dr. F. Gaynor Evans and Dr. Ronan O'Rahilly, of the College of Medicine.

Securities totaling $63,603 from the estate of Dr. William A. Spitzley were also given to the University to be added to the Grover C. Penberthy Research Fund.

A grant of $30,000 from the Michigan Heart Association will be used to study cardiovascular diseases at the College of Medicine. A grant of $20,000 in support of research entitled "Quantum Theory of Fields" under the direction of Suraj N. Gupta was given by the National Science Foundation.

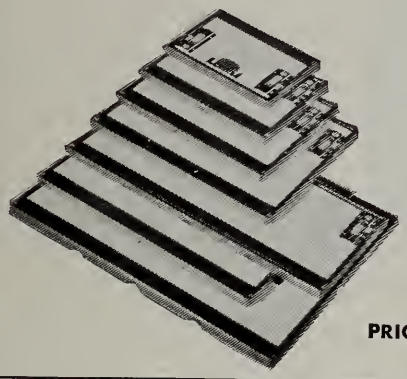
The Rands Family Foundation gave $10,000 to continue fellowships for research in the field of geriatrics and $7,750 was received from General Motors to continue the General Motors scholarship program.

* * *

Nursing Building at WSU.—Construction has begun on the $2-million Richard Cohn Memorial Building which will house the College of Nursing, School of Social Work and the Graduate School at Wayne State University.

The new structure, being erected on Cass Avenue between Ferry and Palmer, is expected to be ready for

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occupancy in early 1960. The building will make possible the expansion of the College of Nursing, now limited to 600 students.

Funds for the building are provided in part by two grants, $425,000 from the Richard Cohn Foundation and $270,000 from the Greater Detroit Hospital Fund. The University is providing the balance of funds.

Richard Cohn was a Detroit business leader and Philanthropist.

* * *

Wayne State University is one of Michigan's official historical sites. Ceremonies dedicating the marker which made the honor official were held October 21, on the lawn in front of Old Main Building. Officials of the University, the State and the City of Detroit attended the dedication.

Presentation of the marker to University President Clarence B. Hilberry was made by Mrs. Donald E. Adams, president of the Michigan Historical Commission.

Text for the marker as approved by the Michigan Historical Society reads:

"Here in the Central High building, completed in 1896, was founded in 1917 Detroit Junior College, from which grew a College of Liberal Arts. This united with other colleges, some begun here and some bearing notable histories in other parts of the city, to form a municipal institution, which, in 1934, was named Wayne University. The oldest college, that of medicine, began in 1868. Wayne with its ten colleges and schools was sustained by the people of Detroit through their Board of Education until 1956, when it became a state university."

The Clinton County Medical Society and the Clinton County Bar Association held a joint meeting in St. Johns on October 22. H. W. Brenneman, Lansing, MSMS Public Relations Counsel, spoke on "Michigan Association of the Professions." Discussants included O. B. McGillicuddy, M.D., Lansing, MSMS Councilor; Milton E. Bachman, Executive Director of the State Bar of Michigan; Circuit Judge Paul Cash, and Probate Judge Timothy Green. W. B. McWilliams, M.D., Maple Rapids, presided at the meeting.

* * *

The Harper Hospital Bulletin was declared winner of one of the awards in the 1958 national contest among general medical periodicals conducted by the American Medical Writers Association. The award was made at the annual meeting of the Association in Chicago, September 26, 1958.

These awards are akin to Pulitzer prizes in journalism. They are made each year for accuracy, clarity, conciseness and newness of information in articles, editorials and other material; for excellence of design, printing and illustrations, and for distinguished service to the medical profession rendered by United States and Canadian medical periodicals in each of six classifications. A special Review Committee of three outstanding editors evaluates all nominations and submits its recommendations to the Awards Committee for final selection.

The *Harper Hospital Bulletin* is published every two months by the Harper Hospital staff. Dr. William S. Reveno is Editor and Dr. Harold C. Mack, Associate Editor.

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Sidney E. Chapin, M.D., is winner of the "Distinguished Citizen's Award" for 1958 of the Dearborn (Michigan) Chamber of Commerce. Dr. Chapin was chosen by a committee who had the names of many worthy men from which to make a selection.

In making the presentation, at the fourteenth annual dinner, Dearborn Inn, October 28, 1958, Alex Budny highlighted the following events in Dr. Chapin's life: five years' service U. S. Navy, both Atlantic and Pacific theatres during W. W. II; a native of Vermont, graduated from New York University and New York University Medical College of Bellevue Hospital; affiliated with twenty-seven different civic, professional and charitable organizations; consultant this year to U. S. Public Health Service, Home Care Program Conference at Roanoke, Virginia; secretary of the Michigan Heart Association; chairman of both the Health Federation, United Community Services of Detroit and Public Relations Committee of the Wayne County Medical Society; past chairman of Dearborn Public Health Committee and the Steering Committee of Child Guidance Project West Wayne County; President of Detroit Men's Council, Navy League of the United States.

Dr. Chapin is a valued steadfast member of the Chamber of Commerce, having recently been elected to the Board of Directors. He practices medicine in Dearborn, emphasizing Cardiology and Geriatrics.

* * *

The Michigan Society of Neurology and Psychiatry on October 23, 1958, presented its Research Award to Dr. Henry Krystal, an associate member of the Society. The award, consisting of a prize of $250 and an appropriate scroll, is presented annually for meritorious original work in neuropsychiatry done by men in the first five years of training or experience. Dr. Krystal's paper, entitled "Physiological Treatment of Delirium Tremens," has been accepted for publication in the *Journal of the American Psychiatric Association*.

* * *

The Michigan State Medical Assistants Society's new officers for 1958-59 are: *President*—Donna Hislop, Muskegon; *President-Elect*—Mrs. Reta V. Shedd, Albion; *Corresponding Secretary*—Catherine LaPres, Muskegon; *Recording Secretary*—Mrs. Dorothy V. Alison, Coldwater; *Treasurer*—Cecile Rutan, Hanover; *Past President*—Marlouise Redman, Detroit.

* * *

The National Conference of Catholic Charities made it clear that it wants no help from government in the field of hospital and medical group insurance. Testifying recently before a House committee in Washington, which is considering changes in the Social Security Act, Msgr. John O'Grady, secretary, said that over-all government relief programs "represent the welfare state in its most complete form."

The monsignor added that "at this time, we are not sympathetic about having the federal government enter the field of hospital and medical group insurance. W

JMSM

believe that it brings the federal government too close to the problems of family life. It is an entire departure from the objectives of a social insurance program."

Monsignor O'Grady said that studies of the aging made by Catholic charities "do not justify our supporting program for the entrance of government into the field of hospital and medical group insurance."—From AMA General Manager's Letter.

* * *

Lester P. Dodd, LL.B., MSMS Legal Counsel, and Wm. J. Burns, LL.B., MSMS Executive Director, have been reappointed as members of the Committee on Medicolegal Problems, a committee of the State Bar of Michigan.

* * *

The first Chicago Postgraduate Course in Arthritis and Related Conditions will be given full-time on February 9, 20 and 21, 1959, at Thorne Hall, Northwestern University, Lake Shore Drive at Superior Street, Chicago, Illinois. Tuition, $50. Faculty from all Chicago medical schools and six nationally known guest lecturers. For program, write the secretary, Frank R. Schmid, M.D., 303 East Chicago Avenue, Chicago 11, Illinois.

* * *

Howard B. Latourette, M.D., associate professor of radiology at The University of Michigan Medical Center, has been appointed to a five-man committee of the American Institute of Biological Sciences to review the Atomic Energy Commission's cancer program.

The committee will study existing programs and advise the AEC regarding future uses of radioactive materials in the fight against cancer. It will also evaluate current cancer activities carried out at AEC laboratories and in university research centers throughout the United States.

Dr. Latourette is chairman of the Cancer Research Institute at the University of Michigan.

* * *

Ralph S. Green, M.D., Clinical Director of The Haven Sanitarium, Rochester, was elected to the Board of Trustees of the National Association of Private Psychiatric Hospitals at its annual meeting in Kansas City, October 3-4, 1958.

* * *

Medical Television Shows produced by Michigan Health Council.—October 5: Food Quackery—(Film—"The Medicine Man")

October 12: Retarded Children—(Films—"Tuesday's Child" and "No Less Precious")

October 19: Health Careers—(Film—"Helping Hands for Julie")

October 26: Hearing—(Film—"You Can Hear Again")

* * *

M.D. Locations—through October 31, 1958.—Assisted by Michigan Health Council: Marvin B. Wolf, M.D., Adrian; Richard K. Vaught, M.D., Royal Oak; Donald E. Camp, M.D., Niles; Harold H. Brownell, M.D., Dearborn.



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Training for medical assistants at the following educational institutions has been formally approved by the Michigan State Medical Society and/or the Michigan State Medical Assistants Society:

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Ferris Institute—two-year Program for Medical Assistants

Highland Park Junior College—one-year Course

Institutions that have not submitted material for approval include:

The American Registry of Doctor's Nurses, Marianna, Florida

National Registry of Medical Secretaries, Boston, Massachusetts

Great Lakes College, Detroit, Michigan

Carnegie Institute, Inc., Detroit, Michigan

Should doctors or their office assistants desire information regarding correspondence courses for medical assistants, it is suggested by the MSMS Advisory Committee to the Michigan State Medical Assistants Society that they contact the Lansing office of MSMS.

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column. and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

ATRIAL ARRHYTHMIAS. DIGITALIS AND POTASSIUM. Bernard Lown, M.D., Research Associate in Medicine, Department of Nutrition, Harvard School of Public Health; Junior Associate in Medicine, Peter Bent Brigham Hospital, Boston, Massachusetts, and Harold D. Levine, M.D., Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston, Massachusetts, Assistant Clinical Professor of Medicine, Harvard Medical School. New York: Landsberger Medical Books, Inc. Price $6.90.

This is a very small and well-written book of slightly over two hundred pages dealing with a limited subject of atrial arrhthymias induced by digitalis. Such drug-induced arrhythmias are becoming increasingly common, as the more potent glycosides are more frequently employed. The most common of these is paroxysmal atrial tachycardia with block.

Most of these are triggered by a deficit of body potassium, fostered by diuresis, which in some unknown way sensitizes the miocardium to digitalis. The author theorizes two possible mechanisms in which this may be produced.

The material is derived from a wide experience at the Brigham Hospital in addition to results using numerous animal experiments. The Clinical material is presented with a view to self-critical appraisal of error in the light of more modern knowledge concerning mechanism of action of these drugs. It is a monograph of particular interest to the internist and the cardiologist.

R.W.B.

HANDBOOK OF TREATMENT OF ACUTE POISONING. E. H. Bensley, MB.E., B.A., M.D., F.A.C.P., Director, Department of Metabolism and Toxiology, The Montreal General Hospital; Associate Professor of Medicine and Lecturer in Toxicology, McGill University, and G. E. Joron, B.A., M.D., C.M., F.A.C.P., Assistant Physician, Department of Metabolism and Toxicology and the Department of Medicine, Montreal General Hospital; Demonstrator in Medicine, McGill University; Assistant Physician, St. Mary's Hospital, Montreal. Second Edition. Edinburgh and London: E. & S. Livingston, Ltd. Price $4.00.

This is a handy guide to the treatment of poisons. The more important types of acute poisoning are included. It is divided into two parts: (1) General Principles and general plan of treatment. (2) Treatment of specific poisons. Specific treatment measures are given in sequential "cook book" fashion. It is a small pocketsize book of only 287 pages and is well indexed. It should be on every doctor's book shelf and should be readily available in every emergency room

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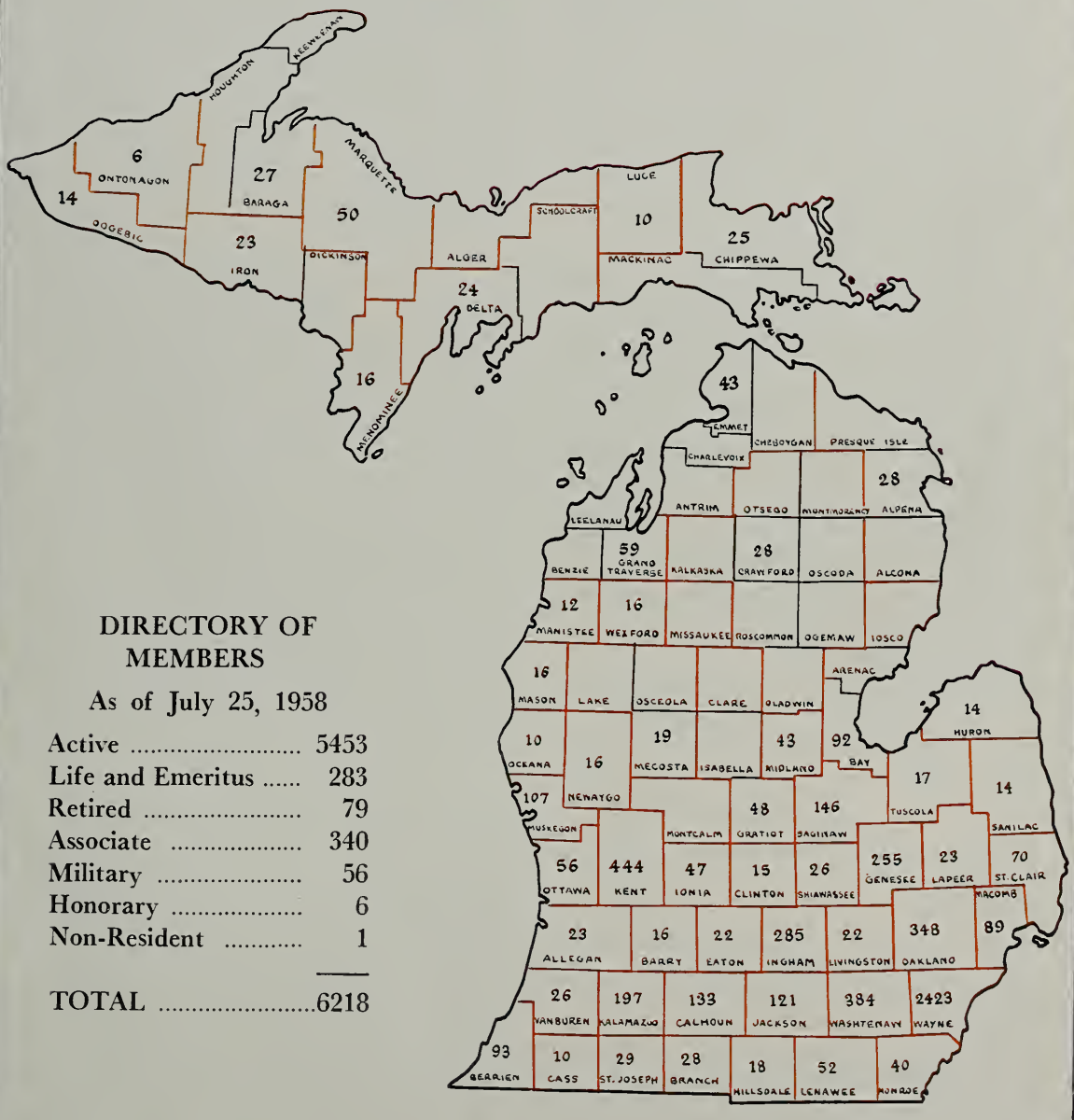
The Journal
Michigan
STATE MEDICAL SOCIETY

September, 1958
Volume 57
Number 9

(This number is composed of two sections, of which this is Section 2)

Suppl.

Directory of Members—1958



DIRECTORY OF MEMBERS

As of July 25, 1958

Active	5453
Life and Emeritus	283
Retired	79
Associate	340
Military	56
Honorary	6
Non-Resident	1
TOTAL	6218

memo for 'fifty-eight

MICHIGAN BLUE SHIELD AGAIN MEETS CHALLENGE OF BROADER PREPAID HEALTH CARE BENEFITS

Chalk up 1958 as another milestone in the outstanding record of Michigan Medicine in the field of voluntary prepaid health care. Michigan's doctors, who pioneered medical prepayment through Michigan Blue Shield nearly 20 years ago, have moved ahead again.

This year of 1958 saw the introduction of the Blue Shield M-75 Contract. It's a "Forward Look" in prepayment with new realistic income ceilings and a broad range of outpatient diagnostic services that has commanded national attention.

The Blue Shield M-75 is Michigan Medicine's soundly researched answer to a demonstrated public demand for extended benefits in prepaid health care. The program is based on a solid foundation of facts and reality. The new benefits are those which comprehensive joint surveys of the public and the medical profession agreed were what the people wanted and could be provided practically and realistically through a voluntary prepaid medical care plan.

When coupled with the companion Blue Cross Comprehensive Hospital Care Contract, the Blue Shield M-75 adds up to the best prepaid health care program generally available. With half the people of Michigan now covered by Blue Cross - Blue Shield, benefits paid Michigan doctors and hospitals average nearly $170,000,000 a year!

The public acceptance of Blue Cross-Blue Shield is a tribute to the dynamic manner in which the doctors and hospitals of Michigan are continuing to meet the increased health-care needs of the people through their joint prepayment Plans.

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Cities of 1,000 Population With County Designation

CITY	COUNTY
Adrian	Lenawee
Albion	Calhoun
Algonac	St. Clair
Allegan	Allegan
Alma	Gratiot
Almont	Lapeer
Alpena	Alpena
Anchor Bay Gardens	Macomb
Ann Arbor	Washtenaw
Austin Lake	Kalamazoo
Bad Axe	Huron
Bangor	Van Buren
Battle Creek	Calhoun
Bay City	Bay
Belding	Ionia
Belleville	Wayne
Bellevue	Eaton
Benton Harbor	Berrien
Benton Heights	Berrien
Berkley	Oakland
Berrien Springs	Berrien
Bessemer	Gogebic
Big Rapids	Mecosta
Birmingham	Oakland
Blissfield	Lenawee
Bloomfield Hills	Oakland
Boyne City	Charlevoix
Brighton	Livingston
Bronson	Branch
Brookline	Jackson
Brownlee Park	Calhoun
Buchanan	Berrien
Bullock Creek	Midland
Cadillac	Wexford
Calumet	Houghton
Capac	St. Clair
Carleton	Monroe
Caro	Tuscola
Carrollton	Saginaw
Carson City	Montcalm
Caspian	Iron
Cass City	Tuscola
Cassopolis	Cass
Cedar Springs	Kent
Center Line	Macomb
Charlevoix	Charlevoix
Charlotte	Eaton
Cheboygan	Cheboygan
Chelsea	Washtenaw
Chesaning	Saginaw
Clare	Clare
Clawson	Oakland
Clinton	Lenawee
Clio	Genesee
Coldwater	Branch
Coloma	Berrien
Colon	St. Joseph
Columbus Grove	Monroe
Commerce	Oakland
Constantine	St. Joseph
Coppersville	Ottawa
Corunna	Shiawassee
Croswell	Sanilac
Davison	Genesee
Dearborn	Wayne
Decatur	Van Buren
Detroit	Wayne
Detroit Beach	Monroe
Dexter	Washtenaw
Dowagiac	Cass
Dundee	Monroe
Durand	Shiawassee
East Ann Arbor	Washtenaw
East Detroit	Macomb
East Grand Rapids	Kent
East Jordan	Charlevoix
East Lansing	Ingham
Eastlawn	Washtenaw
East Tawas	Iosco
Eaton Rapids	Eaton
Ecorse	Wayne
Englewood Park	Calhoun
Escanaba	Delta
Essexville	Bay
Evart	Osceola
Fair Plain	Berrien
Farmington	Oakland
Fenton	Genesee
Ferndale	Oakland
Ferrysburg	Ottawa
Flat Rock	Wayne
Flint	Genesee
Flushing	Genesee
Fowlerville	Livingston
Frankenmuth	Saginaw
Frankfort	Benzie
Fraser	Macomb
Galesburg	Kalamazoo
Garden City	Wayne
Gaylord	Otsego
Gladstone	Delta
Gladwin	Gladwin
Grand Haven	Ottawa
Grand Ledge	Eaton
Grand Rapids	Kent
Grandville	Kent
Grayling	Crawford
Greenville	Montcalm
Grosse Pointe	Wayne
Grosse Pointe Farms	Wayne
Grosse Pointe Park	Wayne
Grosse Pointe Shores	Wayne & Macomb
Grosse Pointe Woods	Wayne & Macomb
Hamtramck	Wayne
Hancock	Houghton
Harbor Beach	Huron
Harbor Springs	Emmet
Hart	Oceana
Hartford	Van Buren
Hastings	Barry
Hazel Park	Oakland
Highland Park	Wayne
Hillsdale	Hillsdale
Holland	Ottawa
Holly	Oakland
Homer	Calhoun
Houghton	Houghton
Howell	Livingston
Hubbell	Houghton

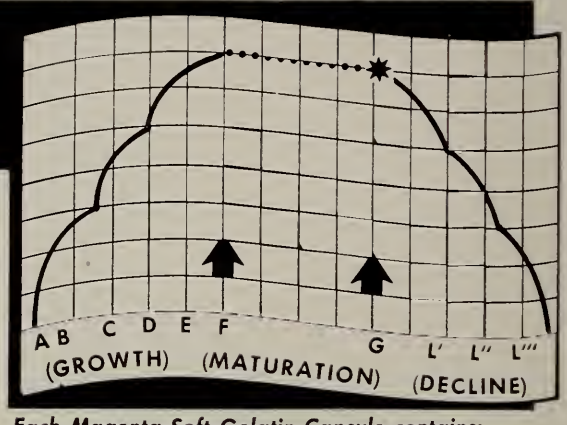
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Hudsonville	Ottawa
Huntington Woods	Oakland
Imlay City	Lapeer
Inkster	Wayne
Ionia	Ionia
Iron Mountain	Dickinson
Iron River	Iron
Ironwood	Gogebic
Ishpeming	Marquette
Ithaca	Gratiot
Jackson	Jackson
Jonesville	Hillsdale
Kalamazoo	Kalamazoo
Kalkaska	Kalkaska
Kingsford	Dickinson
Lake Linden	Houghton
Lake Odessa	Ionia
Lake Orion	Oakland
Lake Orion Heights	Oakland
Lakeview	Calhoun
L'Anse	Baraga
Lansing	Ingham
Lapeer	Lapeer
Lapeer Heights	Genesee
Laurium	Houghton
Lawton	Van Buren
Leslie	Ingham
Lincoln Park	Wayne
Livonia	Wayne
Ludington	Mason
Mancelona	Antrim
Manchester	Washtenaw
Manistee	Manistee
Manistique	Schoolcraft
Manton	Wexford
Marcellus	Cass
Marine City	St. Clair
Marlette	Sanilac
Marquette	Marquette
Marshall	Calhoun
Marysville	St. Clair
Mason	Ingham
Melvindale	Wayne
Menominee	Menominee
Michigan Center	Jackson
Middleville	Barry
Midland	Midland
Milan	Monroe & Washtenaw
Milford	Oakland
Millington	Tuscola
Monroe	Monroe
Montague	Muskegon
Morenci	Lenawee
Mount Clemens	Macomb
Mount Morris	Genesee
Mount Pleasant	Isabella
Munising	Alger
Muskegon	Muskegon
Muskegon Heights	Muskegon
Nashville	Barry
Negaunee	Marquette
Newaygo	Newaygo
New Baltimore	Macomb & St. Clair
Newberry	Luce
New Buffalo	Berrien
New Haven	Macomb

CITY	COUNTY
Niles	Berrien
North Muskegon	Muskegon
Northville	Wayne & Oakland
Norway	Dickinson
Oak Park	Oakland
Onaway	Presque Isle
Ontonagon	Ontonagon
Otsego	Allegan
Ovid	Clinton
Owosso	Shiawassee
Oxbow	Oakland
Oxford	Oakland
Painesdale	Houghton
Parchment	Kalamazoo
Patterson Gardens	Monroe
Paw Paw	Van Buren
Paw Paw Lake	Berrien
Pentwater	Oceana
Perry	Shiawassee
Petersburg	Monroe
Petoskey	Emmet
Pigeon	Huron
Pinconning	Bay
Plainwell	Allegan
Pleasant Ridge	Oakland
Plymouth	Wayne
Pontiac	Oakland
Portage	Kalamazoo
Port Huron	St. Clair
Portland	Ionia
Quincy	Branch
Ramsay	Gogebic
Reading	Hillsdale
Reed City	Osceola
Republic	Marquette
Richmond	Macomb
River Rouge	Wayne
Riverview	Wayne
Rochester	Oakland
Rockford	Kent
Rockwood	Wayne
Rogers City	Presque Isle
Romeo	Macomb
Roosevelt Park	Muskegon
Roseville	Macomb
Royal Oak	Oakland
Saginaw	Saginaw
Saint Charles	Saginaw
Saint Clair	St. Clair
Saint Clair Shores	Macomb
Saint Ignace	Mackinac
Saint Johns	Clinton
Saint Joseph	Berrien
Saint Louis	Gratiot
Saline	Washtenaw
Sandusky	Sanilac
Sault Sainte Marie	Chippewa
Schoolcraft	Kalamazoo
Scottville	Mason
Sebewaing	Huron
Seven Harbors	Oakland
Shelby	Oceana
South Haven	Van Buren
Southland	Jackson
South Lyon	Oakland
South Monroe	Monroe
South Park	St. Clair
Sparlingville	St. Clair

CITY	COUNTY
Sparta	Kent
Springfield Place	Calhoun
Spring Lake	Ottawa
Stambaugh	Iron
Standish	Arenac
Stanton	Montcalm
Stockbridge	Ingham
Sturgis	St. Joseph
Sunrise Heights	Calhoun
Sylvan Lake	Oakland
Tawas City	Iosco
Tecumseh	Lenawee
Temperance	Monroe
Three Rivers	St. Joseph
Traverse City	Grand Traverse
Trenton	Wayne
Union City	Branch & Calhoun
Utica	Macomb
Vandercook Lake	Jackson
Van Dyke	Macomb
Vassar	Tuscola
Vicksburg	Kalamazoo
Virginia Park	Ottawa
Wakefield	Gogebic
Walled Lake	Oakland
Watervliet	Berrien
Wayland	Allegan
Wayne	Wayne
Wenona Beach	Bay
West Branch	Ogemaw
Whitehall	Muskegon
White Pigeon	St. Joseph
Willow Run	Washtenaw
Woodlawn Orchards	Jackson
Woodville	Jackson
Wyandotte	Wayne
Yale	St. Clair
Ypsilanti	Washtenaw
Zeeland	Ottawa
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*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

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McLelland, J. T.....Mercy Hospital X-Ray Dept., Benton Harbor
McNabb, Arthur A.....469 Main St., Watervliet

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Moore, T. Scott.....P.O. Box 416, Niles
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Valantiejus, John A.....R.R. 2, Cedar Lane Farm, New Buffalo
Vastine, Russel J., Jr.....430 W. Chicago, Buchanan
Weber, Harry J.....Berrien County Hospital, Berrien Center
Weber, Velda J.....Berrien County Hospital, Berrien Center
Westervelt, H. O.....539 Pearl St., Benton Harbor
Winegar, Alvon C.....190 Michigan St., Benton Harbor
Woodford, Hackley E...191 Michigan St., Benton Harbor
Zick, Luther H.....2522 Nile Ave., St. Joseph

BRANCH COUNTY

Aldrich, Napier S.....162 Marshall St., Coldwater
Andrews, Frank A.....Lock Box 148, Coldwater
Bacon, Charles.....292 E. Chicago, Coldwater
Bailey, James E., Jr.....292 E. Chicago St., Coldwater
Beck, Perry C.....Box 25, Bronson
Buell, Martin.....N. Broadway St., Union City
Coates, Carl A.....135 Stringtown R.F.D. 1, Quincy
Culver, Bert W. (L).....72 Division St., Coldwater
Culver, Dean T.....78 Division St., Coldwater
Fraser, Robert J.....22 W. Pearl St., Coldwater
Gomley, Henry C.....108 E. Chicago St., Bronson
Hamilton, Earl D.....State Home Training School, Coldwater
Harris, Donald M.....35 S. Sprague St., Coldwater
Heffelfinger, John C.....292 E. Chicago Ave., Coldwater
Heinrich, J. F.....State Home & Trng. School, Coldwater
Leitch, Robert M.....304 N. Broadway, Union City
McLain, Richard W. (L)....37 Janoah Ave., Battle Creek
Meier, Harold J.....87 W. Pearl St., Coldwater
Mitchell, Harold C.....Lock Box 148, Coldwater
Mooi, Henry R.....20 Fairfield Dr., Coldwater
Moss, Harvey L.....86 W. Clarke, Coldwater
Nettleman, William E.....136 E. Pearl St., Coldwater
Olmsted, Kenneth L.....70 Marshall St., Coldwater
Rennell, Edwin J.....Coldwater State Home, Coldwater
Southworth, Robert.....50 Division St., Coldwater
Thomas, James A.....390 E. Chicago St., Coldwater
Wade, Robert L. (L).....116 E. Chicago St., Coldwater
Walton, Nathaniel J.....Quincy
Weidner, Harold R.....50 Division St., Coldwater

CALHOUN COUNTY

Albright, Arnold A.....Rte. 3, Box 226A, Bellevue
Allen, R. H.....191 College, Battle Creek
Amos, Norman H.....Rte. 4, Box 95, Battle Creek
Anderson, Harold E...65 W. Michigan Ave., Battle Creek
Bakken. Richard L.....719 Capital Ave. S.W., Battle Creek
Barden, Stuart P.....Leila Hospital, Battle Creek
Baribeau, Roy H.....65 W. Michigan Ave., Battle Creek
Becker, Harry F.....R.R. 3, Box 303A, Battle Creek
Berghorst, John (A).....VA Hospital, Battle Creek
Beuker, Herman.....120 E. Michigan Ave., Marshall
Bodine, Harold R.....1 W. Michigan Ave., Battle Creek
Bonifer, Philip P.....231 North Ave., Battle Creek
Brainard, C. W.....148 Wah Wah Tay See, Battle Creek
Braverman, A. A. (A).....VA Hospital, Fort Custer
Brown, Robert W.....24 Country Club Dr., Battle Creek
Campbell, Alice F.....103 E. Mulberry St., Albion
Campbell, Jack S.....1 W. Michigan Ave., Battle Creek
Campbell, Richard J.....140 Capital Ave. N.E., Battle Creek
Capron, Manley J.....65 W. Michigan Ave.. Battle Creek
Capron, M. J., Jr.....806 Security Bank Bldg., Battle Creek
Caviness, L. H.....Battle Creek Sanitarium, Battle Creek
Chandler, Edward M.....25 W. Michigan Ave., Battle Creek
Chynoweth, William R.....65 W. Michigan Ave., Battle Creek
Coakes, Jack E.....716 Gorham St., Marshall
Colquhoun, Graham F.....25 W. Michigan Ave., Battle Creek
Cooper, John E. (L).....298 W. Van Buren St., Battle Creek
Curry, Robert K.....Homer
Daly, Harold L., Jr.....318 S. Superior St., Albion
Daly, Miriam I.....203 Irwin, Albion
D'Aversa, Generoso 705 Orchard Dr., Albion
Diamante, Paul J.....70 W. Michigan Ave., Battle Creek
Dickson, Albert R.....25 W. Michigan Ave., Battle Creek
Dodge, Warren M., Jr.....70 W. Michigan Ave., Battle Creek
Fairbanks, Stephen.....P.O. Box 67, Albion
Ferazzi, Patrick S.....140 Capital Ave. N.E., Battle Creek
Finch, Duward L.....719 Capital Ave. S.W., Battle Creek
Fisher, Robert E.....1501 W. Michigan Ave., Battle Creek
Fraser, Robert H.....25 W. Michigan Ave., Battle Creek
Funk, L. D.....Athens
Gething, Joseph W. (L).....538 W. Michigan Ave., Battle Creek
Giddings. A. M. (L).....Battle Creek Sanitarium, Battle Creek
Gilfillan, Margery J. (L).....Battle Creek Sanitarium, Battle Creek
Graubner, Franklin L.....Bogar Theater Bldg., Marshall
Griffith, Jack C...1407 Security Bank Bldg., Battle Creek
Hamady, Alfred.....140 Capital Ave. N.E., Battle Creek
Hansen, Edwin L.....216 North Ave., Battle Creek
Hansen, Harvey C.....65 W. Michigan Ave.. Battle Creek
Haughey, Wilfrid (L).....65 W. Michigan Ave., Battle Creek
Henderson, Philip M.....109 W. Erie, Albion
Herman, Louis (A).....VA Hospital, Battle Creek
Herzer, Henry A. (L)....Michigan Masonic Home, Alma
Hibbs, Donald K.....65 W. Michigan Ave., Battle Creek
Holtom, Benjamin G.....78 Merwood Dr. E., Battle Creek
Hubly, James W.....25 W. Michigan Ave., Battle Creek
Humphrey. Archie E.....864 E. Michigan St., Marshall
Humphrey, Arthur A.....Country Club Dr., Battle Creek
Jeffrey, James R...179 N. Washington Ave., Battle Creek
Jones, Aubrey H. (A)....University Hospital, Ann Arbor

Jones, Ernest F. (A).....VA Hospital, Battle Creek
Jones, Tyre K.....118 W. Green, Marshall
Kavanagh, Thomas W.....612 Mich. Natl. Bank Bldg., Battle Creek
Keagle, Leland R.....196 North Ave., Battle Creek
Keeler, Kenneth B.....Commercial Bank Bldg., Albion
Kelleher, George T...65 W. Michigan Ave., Battle Creek
Kimball, Arthur S., Jr.....1150 E. Michigan, Battle Creek
Kinde, Matthew R.....W. K. Kellogg Foundation Library, Battle Creek
Kingsley, Paul C.....191 College, Battle Creek
Klopp, Edward J.....1015 Security Tower, Battle Creek
Kolvoord, Theodore (R).....Rt. 7, Box 61, Battle Creek
La France, N. F. (A).....VA Hospital, Fort Custer
Lam, Francis L.....408 Capital Ave. S.W., Battle Creek
Lancaster, Vance B.....119 Ridgeway Dr., Battle Creek
Lentz, Carlisle S. (A).....143 Frelinghuysen Ave., Battle Creek
Levine, S. L. (A).....VA Hospital, Battle Creek
Levy, Joseph, Jr.....231 North Ave., Battle Creek
Lewis, Welcome B. (L).....110 Irving Park Dr., Battle Creek
Lowe, Kenneth H.....231 North Ave., Battle Creek
Lowe, Stanley T.....231 North Ave., Battle Creek
Lynk, Stanley M. (A).....VA Hospital, Battle Creek
MacGregor, A. E. (L).....25 W. Michigan Ave., Battle Creek
Marino, Salvator G. (A)....VA Hospital.....Battle Creek
McCuaig, Alfred G.....719 Capitol St. S.W., Battle Creek
Meister, Franklin O...315 N. Orchard Ave., Battle Creek
Melges, Frederick J...25 W. Michigan Ave., Battle Creek
Mitton, Orland W. (R)....85 Garrison Ave., Battle Creek
Morrison, Donald B.....719 Capitol S.W., Battle Creek
Mullenmeister, H. F.....99 Fremont St., Battle Creek
Mustard, Russell L.....25 W. Michigan Ave., Battle Creek
Norgan, Anne F. (A).....VA Hospital, Battle Creek
Orr, Eli H. (A).....VA Hospital, Battle Creek
Parkinson, Charles E.....9 Emmett St., Battle Creek
Patrick, Gilbert T.....25 W. Michigan Ave., Battle Creek
Pearson, Donald J.....255 North Ave., Battle Creek
Pier, Clarence T. (A).....VA Hospital, Battle Creek
Power, John R.....140 Capital Ave. N.E., Battle Creek
Robbert, John.....164 Francis Dr., Battle Creek
Robins, Hugh B.....Health Dept., City Hall, Battle Creek
Rorich, Wilma C. W.....166 N.E. Capitol, Battle Creek
Rosenfeld, Joseph E.....158 Capital Ave. N.E., Battle Creek
Rowan, Russell C.....205 S. Superior St., Albion
Royer, Clark W.....1331 W. Michigan Ave., Battle Creek
Ryan, Charles J.....Leila Hospital, Battle Creek
Sharp, Ara D. (R).....308 Superior St., Albion
Shellenberger, H. M.....Box 168 Marshall
Shipp, Leland P.....25 W. Michigan Ave., Battle Creek
Sibilsky, A. Clark (A).....Veterans Administration Battle Creek
Simpson, Robert S...700 Capital Ave. S.W., Battle Creek
Slagle, George W.....140 N.E. Capital, Battle Creek
Sleight, James D.....25 W. Michigan Ave., Battle Creek
Smith, Joseph S. (A).....VA Hospital. Battle Creek
Spencer, Collis M.....308 S. Superior St., Albion
Stadle, Wendall H. (R).....607 Jennings Landing. Gougac Lake
Stephenson, C. D.....140 Capital Ave. N.E., Battle Creek
Stiefel, Richard A.....25 W. Michigan Ave.. Battle Creek
Strohmenger, Frank J.....400 S. Superior St., Albion
Taylor, Clifford B.....308 S. Superior St., Albion
Tazelaar, Myron A.....219 N. Madison St., Marshall
Vander Kamp, Harry (A).....VA Hospital, Battle Creek
Vander Voort, William V. (L)..179 N. Washington Ave., Battle Creek
Van Sandt, M. M. (A)..Fed. Civil Defense, Battle Creek
Verity, Lloyd E.....25 W. Michigan Ave., Battle Creek
Walker, Charles S.....709 W. Van Buren St., Battle Creek
Walters, John F.....265 Sherman Rd., Battle Creek
Walters, William D.....Leila Hospital, Battle Creek
Way, Kenneth E.....105 N. Jefferson St., Marshall
Wemmer, Keith S...1472 W. Michigan Ave., Battle Creek
Wencke, Carl G.....127 Park Place, Battle Creek
Winslow, Sherwood B.....25 W. Michigan, Battle Creek
Worgess, Duane R.....45 W. Territorial Rd., Battle Creek
Yannitelli, S. A.....28 Woodmer Lane, Battle Creek
Zaplitny, R. B.....1704 Wolverine Fed. Tr., Battle Creek
Zheutlin, Bertram.....50 Adams St., Battle Creek
Zindler, George A.....R. 3, Box A 75, Bellevue

CASS COUNTY

Adams, Uriah M.....Marcellus
Clary, Rudolph I.....216 S. Front St., Dowagiac
Comstock, L. David, Jr.....216 S. Front St., Dowagiac
Hickman, John K.....132 S. Front St., Dowagiac
Loupee, George E.....110 W. Division St., Dowagiac
Loupee, Sherman L. (L).....110 W. Division St., Dowagiac
Nakas, Osvaldas.....Edwardsburg
Pierce, Frank L. (L).....Dowagiac
Pierce, Kenneth C.....401 Spruce St., Dowagiac
Zwergel, Edward H.....5207 Morningside Dr., Kalamazoo

CHIPPEWA-MACKINAC COUNTIES

Allott, Hugh R.....300 Court St., Sault Ste. Marie
Bandy, Festus C. (R)..2431 Hamlin Lane, Sarasota, Fla.
Blair, H. Milton.....300 Court St., Sault Ste. Marie
Clausen, Claire H.....300 Court St., Sault Ste. Marie
Duvall, Dorothy V.....520 Division St., Sault Ste. Marie
Finlayson, Donald D...301 E. Spruce St., Sault Ste. Marie
Futterer, LeRoy A. (A).....Mackinac Island
Goldberg, Abraham H.....310 Ashmun St., Sault Ste. Marie
Hagele, Marie A.....126 Park Place, Sault Ste. Marie
Hamel, Herbert E.....St. Ignace
Harrington, Harvey M.....519 Ashmun St., Sault Ste. Marie
Howe, Donnell C., Jr.....300 Court St., Sault Ste. Marie
Howe, Gertrude E.....425 E. Spruce St., Sault Ste. Marie
Mackie, Thomas B.....300 Court St., Sault Ste. Marie
McBryde, Lyman M.....416 Ashmun St., Sault Ste. Marie
Mertaugh, William F.....104 W. Spruce St., Sault Ste. Marie
Montgomery, Benjamin T.....301 E. Spruce St., Sault Ste. Marie
Rhind, Earl S.....Sault Polyclinic, Sault Ste. Marie
Solomon, Joseph A.....Mackinac Island
Sudranski, Herbert F.....300 Court St., Sault Ste. Marie
Thompson, Charles F.....Drummond Island
Trapasso, Tony J.....521 Ashmun St., Sault Ste. Marie
Venier, Anton G.....510 Ashmun St., Sault Ste. Marie
Wallen, LeRoy J.....409 Ashmun St., Sault Ste. Marie
Yale, Ira V. (L).....200 Ashmun St., Sault Ste. Marie

CLINTON COUNTY

Bennett, George W.....203 W. Main St., Elsie
Cook, Bruno C.....Westphalia
Elliott, Bruce R.....Box 369, Ovid
Fillinger, Wells B.....Ovid
Foo, Charles T.....110 E. McConnell St., St. Johns
Grost, James M.....303 E. Walker St., St. Johns
Henthorn, Arthur C.....4611 N.U.S. 27, St. Johns
Luton, Frank E. (L).....Beaver Island, St. James
McWilliams, William B.....Maple Rapids
Russell, Sherwood R.....104 N. Oakland St., St. Johns
Sheline, Victor L.....Medical Center, Ithaca
Slagh, Earl M.....Elsie
Smith, Franklin W.....105 S. Ottawa St., St. Johns
Stephenson, Wesley F.....510 E. Walker St., St. Johns
Stoller, Paul F.....St. Johns

DELTA-SCHOOLCRAFT COUNTIES

Anderson, Francis C.....218 S. 10th St., Escanaba
Benson, Gilbert W. (A).....Ludington St., Escanaba
Bernier, A Barroso.....547 Michigan Ave., Manistique
Boyce, Donald H.....1107 Ludington St., Escanaba
Brown, Joseph C.....Manistique
Carlton, Arthur J. (L).....502 S. Seventh St., Escanaba
Dehlin, James R.....8 S. 11th St., Gladstone
Fyvie, James H.....202 S. Cedar St., Manistique
Groos, Harold Q.....1015 S. 1st Ave., Escanaba
Groos, Louis P.....1015 S. 1st Ave., Escanaba
Hult, Otto S.....1005 Delta Ave., Gladstone
Jenke, Albert.....108 S. Tenth St., Escanaba
LeMire, Donald F.....1104 S. First Ave., Escanaba
LeMire, William A.....1106 First Ave S., Escanaba
Lindquist, Norman L.....205 S. Tenth St., Escanaba
Maniaci, George.....Gladstone
McInerney, Thomas A.....1221 Ludington St., Escanaba
Miller, Albert H. (L).....904 Wisconsin, Gladstone
Nagy, Charles J.....Bark River
Olson, Carl J.....8 S. 11th St., Gladstone
Ryde, Robert E.....750 Lake Shore Dr., Escanaba
Waters, Duane L.....200 S. Cedar St., Manistique
Wehner, Merle E.....131 River St., Manistique
Whipple, Arno.....Escanaba

DICKINSON-IRON COUNTIES

Addison, Earl R.....412 Superior Ave., Crystal Falls
Alexander, William H.....411 East C St., Iron Mountain
Anderson, Donald T.....408 Hamilton Ave., Kingsford
Boyce, George H. (L).....First Nat'l Bank Bldg., Iron Mountain
Browning, James L.....212 East B St., Iron Mountain
Carlson, Ralph E.....500 Stephenson Ave., Iron Mountain
Cecconi, R. D.....110 West B St., Iron Mountain
Cooper, Charles A.....Box 542, Stambaugh
Dittrich, Raymond J.....732 Hamilton Ave., Kingsford
Frederickson, Geron (R)....826 E. A St., Iron Mountain
Gladstone, William R., Jr.....804 Main St., Norway
Hayes, Willard N.....720 N. Main St., Norway
Huron, Willis H.....106 West B St., Iron Mountain
Irvine, Lionel E.....Box 438, Iron River
Kofmehl, William J.....Stambaugh
McEachran, Hugh D.....500 Stephenson Ave., Iron Mountain
Palm, E. Theodore.....412 Superior Ave., Crystal Falls
Retallack, Russell C.....326 W. Genesee St., Iron River
Schmutzler, Walter A.....373 Woodward St., Iron Mountain
Schroeder, John M.....Khoury Bldg., Iron Mountain
Smith, Donald R.....Box 471, Iron Mountain
Steinke, Charles G...517 Stephenson Ave., Iron Mountain
Werner, W.....805 Vulcan St., Iron Mountain

EATON COUNTY

Arner, Fred L.....Bellevue
Brown, Byron P.....339 S. Cochran, Charlotte
Carothers, Daniel J.....315 S. Cochran, Charlotte
Cook, J. Maxwell.....144 S. Cochran St., Charlotte
DeLand, C. LeRoy.....Olivet
Engle, Paul H. (A).....Olivet
Garlock, Fred C.....406 E. Jefferson St., Grand Ledge
Hannah, Harry W. (A).....634 Solway St., Glendale 6, Calif.
Harrod, Gordon R.....Grand Ledge
Imthun, Edgar F.....113 E. Jefferson, Grand Ledge
Landick, Robert E., Jr.....111 S. Cochran St., Charlotte
Meinke, Albert H., Jr.....702 S. Main, Eaton Rapids
Meinke, Richard K. (A).....523 Eleventh St., Rochester, Minn.
Myers, Albert W.....Potterville
Riley, Joseph L.....201 S. Cochran St., Charlotte
Robinson, S. R.....Route 2, Grand Ledge
Sevener, Lester G.....236 S. Main St., Charlotte
Sherman, Eber B.....210 Broad St., Eaton Rapids
Van Ark, Bert.....123 N. East St., Eaton Rapids
Van Ark, Herman F.....Eaton Rapids
Whitlock, Stanley C.....Dimondale
Willits, Clayton O.....127 Upland, Charlotte

GENESEE COUNTY

Adams, Chester H.....1114 Beach St., Flint 3
Anderson, Harley H.....11280 N. Saginaw, Mt. Morris
Anderson, John L.....346 S. Saginaw St., Flint 3
Anderson, Robert E.....3002 Mason St., Flint
Andrews, Nelson A. C.....310 E. Main St., Flushing
Anthony, George E. R.....1015 Detroit St., Flint 4
Baird, W. Claire.....1818 Ramsey Blvd., Flint 3
Bald, Frederick W.....503 S. Saginaw St., Flint 3
Barbour, Fleming A.....2015 Lincoln Dr., Flint 3
Baske, Franklin W.....923 Maxine St., Flint 3
Batdorf, Joseph T.....Goodrich Hospital, Goodrich
Bateman, Lawrence G.....1928 Lewis St., Flint 6
Beck, Douglass R.....3327 Fleming Rd., Flint
Benson, John C., Jr.....402 W. 2nd St., Flint 3
Berman, Harry.....3309 Fenton Rd., Flint 7
Bernstein, Eli N.....108 E. Kearsley St., Flint 3
Best, J. A.....64047 Clio Road, Flint
Beyer, George D.....145 W. Vienna St., Clio

Bishop, Don L.....2226 Detroit St., Flint 5
Bogart, Leon M.....346 S. Saginaw St., Flint 3
Boles, William P.....714 Beach St., Flint 3
Bradley, Robert M.....346 S. Saginaw St., Flint 3
Brain, Roy G.....460 S. Saginaw St., Flint 3
Branch, Hira E.....1014 Woodside Dr., Flint 3
Brasie, Donald R.....310 Josephine St., Flint 4
Briggs, Guy D.....224 E. Court St., Flint 3
Bruce, William W. (A).....Jackson Memorial Hospital, Miami, Fla.
Bryant, Donald R.....405 W. Witherbee St., Flint 4
Buchanan, Gerald S.....211 S. Saginaw St., Holly
Buchanan, William F.....238 W. Caroline, Fenton
Burkett, Leslee V. 511 Court House, Flint 3
Burnell, Max R.....3301 Westwood Pkwy., Flint 3
Caster, Elisha W. (L).....19354 James Couzens Hwy., Detroit 35
Chambers, Myrton S.....3402 Westwood Pkwy., Flint 3
Chase, William D.....1318 N. Ballenger Hwy., Flint 4
Clark, Clifford P. (L).....11111 S.W. 62nd Ave., Miami 43, Fla.
Clark, Robert L.....1301 Flushing Rd., Flint 4
Collins, James I.....902 Stockdale St., Flint 4
Colwell, Clifford W.....328 S. Saginaw St., Flint 3
Connell, John T.....601 S. Saginaw St., Flint 3
Conover, George V.....346 S. Saginaw St., Flint 3
Conover, McClellan B.....653 S. Saginaw St., Flint 3
Conover, Thaddeus S.....346 S. Saginaw St., Flint 3
Cook, Henry (L).....346 S. Saginaw St., Flint 3
Coriasso, Louis B.....614 Odette, Flint 4
Covert, Floyd L. (L).....116 Lord St., Gaines
Coyne, K. M.....2721 Clement St., Flint
Craig, William G.....3026 Beecher Rd., Flint
Credille, Barney A.....346 S. Saginaw St., Flint 3
Curry, George J.....346 S. Saginaw St., Flint 3
Curtin, John H.....1300 N. Dort Hwy., Flint 2
Cutler, G. Campbell.....2415 Detroit St., Flint
Davis, Robert C.....G 3029 Flushing Rd., Flint 4
Dawson, Ralph E.....503 S. Saginaw St., Flint 3
Delzingro, Nicholas.....328 Main St., Davison
Denholm, Nan A.....7506 Lapeer Rd., Davison
Dettman, Carlton K.....Nanita Dr., Montrose
Dickstein, Bernard.....460 S. Saginaw St., Flint 3
Dimond, Edwin G.....346 S. Saginaw St., Flint 3
Dodds, Frederick E.....1336 Lewis St., Flint 6
Dodds, Max E.....460-464 S. Saginaw St., Flint 3
Dorsey, Philip W.....346 S. Saginaw, Flint 3
Dowling, George W.....346 S. Saginaw, Flint
Drewyer, Glenn E.....5327 W. Reid St., Swartz Creek
Dykewicz, Richard A.....3705 Beecher Rd., Flint 3
Eaton, Wayne L.....633 Mott Foundation Bldg., Flint
Eichhorn, Ernest M. 503 S. Saginaw St., Flint 3
Eickhorst, Thomas N.....601 S. Saginaw St., Flint 3
Elliott, Hardie B., Jr.....503 S. Saginaw St., Flint 3
Engelman, Raymond M.....503 S. Saginaw St., Flint 3
Ettinger, Ralph D.....111 Walnut St., Fenton
Fan, Q. C.....E. Court St., Flint
Farah, Ben S.....342 Bradley St., Flint 3
Farhat, Maynard M.....505 W. Court St., Flint
Fee, Manson G.....108 E. Kearsley St., Flint 3
Ferris, James W.....426 N. State St., Davison
Finkelstein, T.....1415 Broadway Blvd., Flint 6
Flynn, Southard T.....503 S. Saginaw St., Flint 1
Forrer, Graydon R.....307 E. Court St., Flint 3
Fuller, Harvey T.....820 Genesee St., Mt. Morris
Gal, Bela.....Genesee County Hosp., Flint
Gelenger, Stephen M.....2125 Detroit St., Flint 5
Goering, George R. (L).....519 Drydan Bldg., Flint
Golden, Evelyn.....218 E. Court St., Flint
Golden, H. Maxwell.....218 E. Court St., Flint 3
Goodfellow, Benjamin T (L).....506 Page St., Flint 5
Gorne, Saul S.....619 Clifford St., Flint 3
Grady, Donald R.....1515 Woodslee Dr., Flint 3
Griffin, Ernest P., Jr.....1505 Arrow Lane, Flint 7
Grover, Harold F.....601 S. Saginaw St., Flint 3
Guile, Gurdon S.....1621 Dupont St., Flint 4
Gumpper, C. R.....4430 Morrish Rd., Swartz Creek
Gundry, George L.....Grand Blanc
Gutov, Isadore H.....326 S. Saginaw St., Flint 3
Gutov, Julius J. 726 Church Street, Flint 3
Guyon, Joseph F.....302 W. Pierson Rd., Flint 5
Guyon, Mary A. W.....302 W. Pierson Rd., Flint 5
Hackley, Richard D.....4120 Western Rd., Flint
Hague, Robert F.....210 E. Court St., Flint 3
Hamady, Ruth B.....228 Welch Blvd., Flint
Harper, Robert H.....713 Thomson St., Flint 3
Hauser, Frederick V.....503 S. Saginaw St., Flint 2
Hawkins, James E.....1226 Leith St., Flint
Hennessy, Charles R.....734 Mott Foundation Bldg., Flint
Hill, William T.....7212 Flushing Rd., Flushing
Hing, N. William.....326 Stockdale St., Flint 5
Hiscock, Harold H.....503 S. Saginaw St., Flint 3
Hockman, Thomas A.....1513 Winona, Flint
Hooper, Kendall.....714 Beach Street, Flint 3
Hubbard, William B.....1205 Maxine St., Flint 3
Hufton, Wilfrid L.....721 W. 6th Ave., Flint 4
Hurd, Clayton E.....300 Roberts St., Fenton
Jaarsma, Raymond A.....608 E. Court St., Flint
Jackson, Donald P. Davison
James, Robert E.....3001 S. Saginaw St., Flint
Johnson, A. H., Jr.....3219 North St., Flint 5
Johnson, Frank D.....653 S. Saginaw St., Flint 3
Johnson, Raymond E.....5173 W. Reid Rd., Swartz Creek
Jordan, Paul H.....302 W. Second Ave., Flint
Judd, Alvin E.....2315 Davison Rd., Flint 6
Kaufman, Lewis D.....4002 N. Saginaw St., Flint 5
Kimbrough, C. B.....1402 S. Saginaw St., Flint 3
Knapp, William D.....503 S. Saginaw St., Flint 3
Koop, Chester S.....2503 Detroit St., Flint 5
Kretchmar, Arthur H.....460 S. Saginaw, Flint 10
Kurtz, John J.....601 S. Saginaw St., Flint 3
Laird, James I.....10114 Main St., Goodrich
Leach, J. Leonidas.....3007 Industrial Ave., Flint
Le Mieux, Leslie L.....701 W. Dayton St., Flint 4
Lewis, Thomas E.....3520 Richfield Rd., Flint 6
Lightfoot, Arthur S.....101½ E. Flint Pk. Blvd., Flint
Limbach, David R.....900 Begole St., Flint 2
Lindman, Thomas C.....1612 Seminole, Flint
Livesay, Jackson E.....503 S. Saginaw St., Flint 3
Lukens, T. John 330 Tejon Place, Palos Verdes Estates, California
Lundeen, Richard M.....3046 Canterbury Lane, Flint
Lyttle, Sydney N.....503 S. Saginaw St., Flint 3
MacGregor, Delbert M.....701 W. Dayton St., Flint 4
MacKenzie, J. W.....5397 Miller Rd., Flint 7
Macksood, Joseph A.....2501 N. Saginaw St., Flint 5
Mangelsdorf, C. H.....4122 Brownsell, Flint
Manwaring, John T.....565 Welch Blvd., Flint 3
Martin, James A.....306 E. Marengo, Flint
Mathias, Berton J.....1301 Flushing Rd., Flint 4
McCabe, Margaret M.....2709 Orchard Lane, Flint 4
McClellan, Junius W...Chev. Flint Assembly Div., Flint 7
McGarry, Burton G. (L)....205 E. Caroline St., Fenton
McGarry, Roy A.....601 S. Saginaw St., Flint3
McKenna, Oscar W. (L).....520 E. Third St., Flint 3
McLeod, Kenneth W. A.....2801 N. Saginaw St., Flint 5
McMurray, Richard J.....346 S. Saginaw St., Flint 3
McTaggart, David.....1603 Mott Foundation Bldg., Flint
Michael, Sidney R.....922 Welch Blvd., Flint 4
Michels, Robert M.....409 McKinley Rd., Flushing
Michelson, Richard B.....5001 N. Saginaw St., Flint
Miller, Edwin E. (L).....2902 Detroit St., Flint
Miller, Loren E.....2645 Corunna Rd., Flint 3
Miltich, Anthony J.....601 S. Saginaw St., Flint 3
Moore, Glenn E.....1505 Durand, Flint 3
Moore, Wesley P.....802 Tilden, Flint 5
Morrison, William H.....205 Perry Rd., Grand Blanc
Morrissey, Vaughn H.....101 Stockdale St., Flint 4
Mosier, Edward C.....115 Lake St., Otisville
Murphy, E. Grant.....1825 Chelsea Circle, Flint 3
Neiswander, Paul L.....Fisher Body Div. GMC, Grand Blanc
Nicholls, William W.....1301 Flushing Rd., Flint 4
Odle, Ira D.....201 Welch Blvd., Flint 4
Orr, John W. (L).....Orrs Pt. Lk. Fenton, Fenton
Osher, Seymour L.....2113 E. Second St., Flint 3

Parliment, Burt A.....2715 Orchard Lane, Flint 4
Pfeifer, Archibald C.....12205 N. Saginaw, Mount Morris
Phelps, Lynn A.....Goodrich Gen'l Hospital, Goodrich
Phillips, Robert L.....Bay View Parkway, Nokomis, Fla.
Phillips, Robert W.....2613 Thomas St., Flint 4
Pickering, Woodrow H.....1602 Ballenger Hwy., Flint 4
Pike, Wallace W.....7514 Miller Rd., Swartz Creek
Polich, John J.....809 Stockdale, Flint
Portney, Jack E.....428 Stevens St., Flint 3
Pratz, Oliver C.....1303 Detroit St., Flint 4
Preston, Otto J.....300 N. Chevrolet Ave., Flint 2
Prior, Richard W.....707 Park St., Fenton
Purcell, F. L.....Ternstedt Plant, Flint 5
Quin, John, Jr.....5003 N. Saginaw St., Flint 5
Ragan, Russell M.....3705 Beecher Rd., Flint 3
Rapport, Richard L.....503 S. Saginaw, Flint 3
Rawlings, J. Mott.....1601 Neome Dr., Flint 3
Reichard, Orill (L).....1507 Detroit St., Flint 3
Reid, John H.....627 Campbell St., Flint
Richardson, J. W.....Warm Springs Fndtn., Warm Springs, Georgia
Rieth, George F.....1406 Davison St., Flint 6
Rowe, John B.....653 Saginaw St., Flint 3
Rulney, Max.....1128 Chevrolet Ave., Flint 4
Rundles, Walter Z., Jr.....500 Grand Traverse St., Flint 3
Rundles, Walter Z.....500 Grand Traverse St., Flint 3
Sandberg, Russell G.....2030 Pierce St., Flint 3
Sandy, Kenneth R.....2701 Detroit St., Flint 5
Scavarda, Charles J.....2101 E. Court St., Flint 3
Schiff, Benton A.....323 W. 2nd St., Flint 3
Schmidlin, Robert W.....3710 Davison Rd., Flint 6
Schreiber, E. Oskar.....108 E. Kearsley St., Flint 2
Schultz, J. Stanley.....3327 Fleming Rd., Flint 4
Schwartz, John M.....4300 S. Saginaw St., Flint 2
Scott, Robert D.....1215 Detroit St., Flint 4
Searles, Karl F.....2932 Corunna Rd., Flint 3
Seven, Phillip G.....2301 Cummings, Flint
Seymour, George D.....Professional Bldg., Clio
Shantz, Leighton O.....2026 Calumet St., Flint 3
Sheeran, Daniel H.....346 S. Saginaw St., Flint 3
Sherwood, Frederick.....610 Mott Foundation Bldg., Flint
Shipman, Charles W.....325 E. 1st St., Flint 3
Simoni, Lewis E.....3210 S. Dort Hwy., Flint 7
Sirna, Anthony R.....2709 Thomas St., Flint 4
Smith, Eugene C.....503 S. Saginaw St., Flint 3
Smith, Harold O.....1952 Miller Rd., Flint 3
Smith, Maurice J.....2801 N. Saginaw St., Flint 5
Sniderman, Benjamin F.....727 Beach St., Flint 3
Snyder, Charles E.....Swartz Creek
Sorkin, Morris L.....718 Beach St., Flint 2
Sorkin, Samuel S.....718 Beach St., Flint 2
Sparks, Harvey V.....460 S. Saginaw St., Flint 3
Steffe, Ralph S.....346 S. Saginaw St., Flint 2
Steinman, Floyd H.....503 S. Saginaw St., Flint 2
Stevens, Philip K.....1626 S. Saginaw, Flint 3
Stevenson, William W.....108 E. Kearsley St., Flint 3
Streat, Rudolph W.....218 E. 8th St., Flint 3
Stroup, Clayton K.....2002 E. Court St., Flint 3
Sutherland, James K.....402 E. 3rd St., Flint 3
Theuerle, Walter I.....3101 N. Saginaw St., Flint 5
Thompson, Jack W.....2702 Flushing Rd., Flint 4
Thorburn, Grant.....1602 W. Genesee St., Flint 4
Tofteland, Elmer H.....302 W. 3d Ave., Flint 4
Tower, Rita B.....702 Ballinger Rd., Flint 7
Turner, Merald G.....601 S. Saginaw St., Flint 2
Tuuri, Arthur L.....Mott Children Clinic, Flint
Van Harn, Raymond S.....5009 N. Saginaw, Flint 5
Varney, Howard L.....1415 Broadway, Flint 6
Vary, Edwin P.....460 S. Saginaw St., Flint 3
Vaughan, Edgar J.....Linden
Wade, Franklin V.....503 S. Saginaw St., Flint 2
Walcott, Carver G.....201 E. Carolina St., Fenton
Ward, Nellie M.....503 S. Saginaw St., Flint 3
Ware, Frank A.....346 S. Saginaw St., Flint 3
Wark, David R.....1315 Detroit St., Flint 4
Weber, Robert M.....3710 Davison Rd., Flint 6
Wentworth, John E.....1651 Chevrolet Ave. N., Flint 4
Werness, Inga W.....220 E. Fourth St., Flint 3
Wheeler, J. D.....2470 Begole, Flint 4
White, Carl H.....106 River St., Fenton
White, Herbert T. (L).....(No Address)
Willard, Robert H.....718 Beach St., Flint 3
Williams, William S.....G 3398 S. Saginaw St., Flint 7
Willoughby, Gordon L.....5009 N. Saginaw St., Flint 5
Willoughby, L. L. (L).....1127 S. Water St., Marine City
Wills, Thomas N.....706 W. Court St., Flint 3
Winchester, Walter H. (L).....515 Genesee Bk. Bldg., Flint
Woughter, Harold W.....503 S. Saginaw St., Flint 3
Wright, Donald R.....403 W. Court St., Flint
Zeis, Myron G.....718 Beach St., Flint 2

GOGEBIC COUNTY

Albert, Samuel G.....103 Suffolk St., Ironwood
Davidson, Donald L.....200 S. Sophie St., Bessemer
Franck, John R., Jr.....401 Sunday Lake, Wakefield
Gertz, Michael A.....109 E. Aurora St., Ironwood
Gingrich, Wayne A.....109 E. Aurora St., Ironwood
Gorilla, Allen C.....210 Suffolk St., Ironwood
Harrington, Rex R., Jr.....104 E. Ridge St., Ironwood
Keskey, Theodore J.....207 E. Aurora St., Ironwood
Lieberthal, M. J.....P.O. Box 632, Ironwood
Lieberthal, Paul R.....P.O. Box 632, Ironwood
McEnroe, John E.....7 Newport Heights, Ironwood
Pinkerton, Harold A.....Newport Hospital, Ironwood
Santini, Florian J.....109 E. Alrora St., Ironwood
Wacek, William H.....Grand View Hospital, Ironwood

GRAND TRAVERSE COUNTY

Beall, John G.....118 E. Front St., Traverse City
Benjamin, Mac B.....T. C. State Hospital, Traverse City
Bolan, Ellis S. J.....Suttons Bay
Brownson, Kneale M.....116 Cass St., Traverse City
Brunk, Clifford F.....Rt. 1, Box 279, Traverse City
Bushong, Benjamin B.....116 Cass St., Traverse City
Christie, Joseph.....Northport
Cline, Theodore N.....436 W. Front St., Traverse City
Cline, Warren W.....436 W. Front St., Traverse City
Dunn, Charles W.....State Hospital, Caro
Edmonds, W. T.....Munson Hospital, Traverse City
Ellis, Claude I.....Suttons Bay
Ferguson, John T.....T. C. State Hospital, Traverse City
Fishbeck, Wm. A.....212 Hilltop Homes, Traverse City
Goodrich, Dwight (R).....601 W. Front St., Traverse City
Haberlein, Charles R.....1100 Sixth St., Traverse City
Hall, James W.....1100 Sixth St., Traverse City
Hamilton, Earl E.....530 S. Union St., Traverse City
Herkner, Mildred L.....119 Barlow St., Traverse City
Huene, Nevin.....110 E. Front St., Traverse City
Huston, R. R.....Elk Rapids
Jerome, Jerome T.....217 S. Madison St., Traverse City
Kamp, Robert L.....Beulah
Kitti, William W.....Kalkaska
Lemen, Charles E.....110 S. Madison, Traverse City
Lossman, Robert T.....J. Decker Munson Hospital, Traverse City
McClay, Adam C.....215 S. Madison, Traverse City
Michael, Stanley L.....P.O. Box 518, Elk Rapids
Milliken, John G.....224 Circle Dr., Traverse City

Nickels, Mervyn M.....State Hospital, Traverse City
Norconk, Alonzo A.....Empire
Osterhagen, Harold F.....12818 S. Manitou Trail, Traverse City
Osterlin, Mark F.....Childrens Clinic, Traverse City
Otto, Donald L. Munson Hospital, Traverse City
Pike, Donald G.....876 E. Front St., Traverse City
Power, Frank H.....116 Cass St., Traverse City
Ramzy, Carl O., Jr.....Box C, T. C. State Hospital, Traverse City
Randazzo, Salvatore....Ypsilanti State Hospital, Ypsilanti
Salon, Dayton D.....108 E. Front St., Traverse City
Saran, Richard T.....Frankfort
Scott, John E.....711 2nd St., Traverse City
Sheffer, Marcus B.....223 Grandview Pkwy., Traverse City
Sladek, Edward F.....123 E. Front St., Traverse City
Sommerness, M. Duane.....Traverse State Hospital, Traverse City
Sorum, F. T.....Traverse City State Hospital, Traverse City
Steele, William.....218½ E. Front St., Traverse City
Stokes, G. Edward.....1100 Sixth St., Traverse City
Stone, F. H. (L).....Beulah
Swartz, Fred G.....301 State Bank Bldg., Traverse City
Sweeney, Bernard J.....1100 Sixth St., Traverse City
Thacker, Frederick R.....Front St., Frankfort
Thirlby, Edwin L. (L).....116 Cass St., Traverse City
Thirlby, Richard L.....228 S. Madison, Traverse City
Trautman, Frederick D.....Frankfort
Van Leuven, B. H. (R).....Empire
Wagener, Creighton A.....1100 Sixth St., Traverse City
Weih, Jack E.....118 E. Front St., Traverse City
Weitz, Harry L.....Munson Hospital, Traverse City
Wilcox, Paul H.....526 W. 10th St., Traverse City
Wiley, Philip K. (A).....Route 1, Kalamazoo
Wright, J. K.....Anderson Bldg., Traverse City
Zielke, Irwin H.....212 E. Front St., Traverse City
Zimmerman, Joseph G...102 W. Front St., Traverse City

GRATIOT-ISABELLA-CLARE COUNTIES

Aldrich, Alfred L.....Ithaca
Barstow, Donald K.....215 W. Saginaw, St. Louis
Becker, Myron G.....Edmore
Bedo, Andrew V.....906 S. Franklin, Mt. Pleasant
Bergin, Jos. H.....112 E. Superior, Alma
Bick, M. V.....608 E. Chippewa, Mt. Pleasant
Brenner, E. J.....610 S. College St., Mt. Pleasant
Budge, Melvin J.....1035 Jefferson, Ithaca
Burch, Lewis J. (L).....521 E. Lincoln St., Mt. Pleasant
Burt, Clarence E.....110 S. Pine River, Ithaca
Burt, Loren G.....401 State St., Alma
Chamberlain, Ray W.....608 E. Chippewa, Mt. Pleasant
Chamichian, Souren L.....117 S. College, Mt. Pleasant
Davis, Lionel L.....314 S. Brown St., Mt. Pleasant
Douglas, K. W.....St. Home & Trng. Sch., Mt. Pleasant
Drake, Wilkie M. (L).....Breckenridge
Du Bois, Charles F.....706 State St., Alma
Dunlop, Donald.....301 E. Fourth St., Clare
Graham, Bernard J.....Wright Hotel Bldg., Alma
Hall, Robt. F.....805 Douglas St., Mt. Pleasant
Hammerberg, Kuno.....622 McEwan, Clare
Harrigan, Wm. L...Isabelle State Bk. Bldg., Mt. Pleasant
Hedges, Frank W.....Post Office, Edmore
Hersee, Wm. E. 306 S. College, Mt. Pleasant
Hobbs, A. Deane.....120 N. Center St., St. Louis
Hoogerland, C. L.....236 N. State St.. Alma
Hyslop, Leland F.....205 S. College Ave., Mt. Pleasant
Johnson, Frank D.....412 E. Broadway St., Mt. Pleasant
Johnson, Philip R.....206 S. College Ave., Mt. Pleasant
Juhnke, Le Roy W.....314 S. Brown St., Mt. Pleasant
Kilborn, Herbert F.....218 N. Pine River, Ithaca
McArthur, Stewart C.....104 W. 6th St., Clare
McCoy, F. E.....611 S. Kinney St., Mt. Pleasant
Meyer, Edwin G. 537 S. Lincoln St., Kent, Ohio
Oldham, Earle S.....Breckenridge
Putzig, Louis W.....Blanchard
Ringer, Paul H., Jr.....314 S. Brown St., Mt. Pleasant
Rottschaefer, John L.....715 Center St., Alma
Silvert, Pasche P.....Vestaburg
Von Lackum, L. F.....535 Prospect Blvd., Waterloo, Iowa
Waggoner, Richard L.....St. Louis
Wallman, C. Harry.....630 State St., Alma
Wickert, Leo R.....608 E. Chippewa, Mt. Pleasant
Wilcox, Rex A.....525 State St., Alma
Wilson, Earl C.....Harrison
Wolfe, Kenneth P.....Wright Hotel Bldg., Alma
Wood, Cornelius B.....207 N. Franklin St., Mt. Pleasant
Wood, John M.....815 E. Maple St., Mt. Pleasant

HILLSDALE COUNTY

Bates, Morton P.....110 S. Manning, Hillsdale
Davis, Lloyd A.....Camden
Davis, William B.....Hillsdale
Day, Luther W.....Grosvener Bank Bldg., Jonesville
Hanke, Geo. R. (L).....Osseo
Hodge, Chas. L.....Reading
Hughes, Henry F. (L).....Hillsdale P. O., Cambria
MacNeal, John A.....76 Manning St., Hillsdale
Martindale, Elihu A. (L)..Chelsea Meth. Home, Chelsea
Mattson, H. Frazyer.....32 S. Broad St., Hillsdale
Miller, Harry C. (L).....4760 Panorama Dr., San Diego 16, Calif.
Peterson, Carl A.....32 Broad St., Hillsdale
Sawyer, Walter W.....61 N. Howell St., Hillsdale
Stein, Arthur J.....144 Budlong St., Hillsdale
Strom, Arthur W.....32 S. Broad St., Hillsdale
Trapp, Donald G.....32 S. Broad St., Hillsdale
Wessels, Fredk. M.....Hillsdale
Wiggins, Ira W.....Jonesville

HOUGHTON COUNTY

Aldrich, Addison B.....325 Harris Ave., Hancock
Aldrich, Leonard C.....100 Quincy St., Hancock
Bourland, Philip D. (L).....134 Calumet Ave., Calumet
Bourland, Philip E. M. (M).....U. S. Army Hospital, Aberdeen Proving Grounds, Md.
Brewington, Geo. F. (L).....1805 Walnut Ave., Las Vegas, Nev.
Burke, John J.....Box 449, Hubbell
Hillmer, Raymond E.....Painesdale
Hosking, Fredk. S.(No Address)
Janis, Anton J.....208 Quincy St., Hancock
Kirton, J. R. W. (L).....106 Sixth St., Calumet
Kolb, Fredk. E.....128 Calumet Ave., Calumet
LaBine, Alfred.....Masonic Bldg., Houghton
Larson, Forrest W.....322 Shelden, Houghton
Lepisto, Victor E.....238 Quincy St., Hancock

Levin, Simon (L).....1209 College Ave., Houghton
Lund, C. A. E...205 N. 24th Ave. E., Duluth, Minn., 12
Murphy, Percy J.....Calumet
Nolan, Lewis E.....1033 Mine St., Calumet
Potter, Earl C.....Baraga Co. Memorial Hosp., L'Anse
Repola, Kenneth L. 1527 Siena, Coral Gables, Florida
Roche, Andrew M.....221 5th St., Calumet
Sloan, Paul S.....609 Sheldon Ave., Houghton
Smith, Chas. R.....E. White St., Hancock
Stroube, John A.....522 W. Third, L'Anse
Wickliffe, John T. P.....1167 Calumet Ave., Calumet
Williams, Marshall S.....St. Joseph's Hospital, Hancock
Winkler, Henry J.....Box 461, L'Anse

HURON COUNTY

Bash, Theodore L.....150 E. Kinde Rd., Kinde
Dixon, Ralph C.....Box 77, Pigeon
Elliott, Chas. S.....Pigeon
Gettel, Roy R.....Bad Axe
Herrington, Chas. I.....Bad Axe
Herrington, Willet J.....Bad Axe
Oakes, Chas. W., Jr.....Harbor Beach
Ritsema, John.....6 W. Main, Sebewaing
Scheurer, Clare A.....Pigeon
Sorensen, Maurice G.....P. O. Box, Elkton
Steinhardt, Edward E.....Box 15, Elkton
Thompson, James E.....Caseville
Turner, Phillip R.....321 S. Fourth St., Harbor Beach
Wible, Chas. F., Jr.....Sebewaing

INGHAM COUNTY

Agate, Geo. H.....Mich. Dept. of Hlth., Lansing 4
Aiken, Donald J. (A).....St. Lawrence Hosp., Lansing
Alexander, Reuben G.....301 Seymour Ave., Lansing 15
Altland, J. K.....Mich. Dept. of Hlth., Lansing
Arnett, Donald L. (A)..E. W. Sparrow Hospital, Lansing
Asselin, David C.....1001 Glen Haven, East Lansing
Badgley, Waldo O.....M. O. Box 756, Lansing 6
Baker, Thos. C.....M. O. Box 756, Lansing
Basel, Arthur R.....Olin Mem. Hosp. MSU, East Lansing
Bates, Richard.....1820 E. Michigan Ave., Lansing
Bauer, Theodore I...839 Wildwood Dr., East Lansing 17
Behen, Wm. C.....535 S. Capitol Ave., Lansing 33
Behney, Charles A.....Mich. Dept. of Hlth., Lansing
Bellinger, Ernest G. (L).....Masonic Home, Alma
Berens, Burdette M.....110 N. Rosemary St., Lansing 17
Berge, Richard E. (M)....201 N. Sycamore St., Lansing
Bergeon, Milton C. (A).....St. Lawrence Hosp, Lansing
Bevez, Frank L.....3209 S. Cambridge Rd., Lansing
Bingham, B. Wayne.....125 W. Saginaw, Lansing 15
Black, Chas E.....529 W. Grand River Ave., Williamston
Black, Gertrude C. K.....529 W. Grand River Ave., Williamston
Bradford, Carl W.....419 S. Walnut, Lansing 15
Breakey, Robt. S. (R).....520 Westmorland, Lansing 15
Briggs, James.....1964 S. Cedar St., Holt
Brown, Fredk. W., Jr.....706 Britten Ave., Lansing 17
Brubaker, Earl W...103 N. Washington Ave., Lansing 16
Burhans, Robt. A.....124 W. Allegan St., Lansing 8
Cairns, Donald A.....136 W. Ash St., Mason
Calomeni, Anthony D.....309 Seymour Ave., Lansing 15
Carlson, Ralph G.....3526 W. Saginaw, Lansing 15
Carr, Earl I.....1915 Moores River Dr., Lansing 10
Casey, Byron L.....MSU Health Center, East Lansing
Chao, Yu Hua (A).....St. Lawrence Hospital, Lansing
Chaskes, Marian I. G.....226 S. Capitol Ave., Lansing 25
Cheney, Wm. D.....1215 E. Michigan Ave., Lansing 12
Christian, Leo G.....108 E. St. Joseph St., Lansing 15
Clark, Wm. E.....Rt. 2, Mason
Clinton, Geo. R.....618 S. Jefferson St., Mason
Combs, Robt. G.....1023 E. Michigan Ave., Lansing 12
Comstock, Howard C...1031 E. Michigan St., Lansing 12
Cook, Raymond J.....105 S. Jenison, Lansing 15
Cope, Henry E.....Mich. Dept. of Hlth., Lansing 4
Cordes, Jerome F.....124 W. Allegan St., Lansing 6
Corneliuson, G. B.....617 W. Ottawa St., Lansing 15
Cowan, John A.....825 Touraine, East Lansing
Cummings, Geo. D.....Mich. Dept. of Hlth, Lansing 4
Darling, Lewis H.....115 W. Hillsdale St., Lansing 15
Dart, Dorothy O.....Ypsilanti St. Hosp. Box A, Ypsilanti
Dawe, C. D.....935 Rosewood, East Lansing
Dean, Carleton.....106 W. Allegan St., Lansing 8
DeVries, Corydon F.....320 Townsend St., Lansing 15
Dexter, Mary J. B.....129 E. Maple, Mason
Doyle, Chas. P. (L).....215 N. Logan St., Lansing 15
Drolett, Alfred J.....109 W. Michigan Ave., Lansing 16
Drolett, Donald J.....108 Division St., East Lansing
Drolett, Lawrence A.....3526 W. Saginaw St., Lansing 17
Dunn, Forest M.....301 Seymour Ave., Lansing 33
Ellis, Bertha W. (R).....P. O. Box 216, Port Blakely, Wash.
Ellis, Chas. W. (L).....P. O. Box 216, Port Blakely, Wash.
Everett, Benjamin A. (A).....St. Lawrence Hospital, Lansing
Feeney, Kenneth J.....1908 Olds Tower, Lansing 15
Feurig, James S.....321 Kensington, East Lansing
Finch, Russell L.....420 S. Walnut St., Lansing 15
Fletcher, Frank R. (A).....E. W. Sparrow Hospital, Lansing
Folkers, Leonard M.....234 Michigan Ave., East Lansing
Fortino, Silvio P.....115 W. Allegan St., Lansing 23
Fosget, Wilbur W.....210 E. Hillsdale St., Lansing 33
Horace L. French.....301 Seymour St., Lansing 15
Fryer, Douglas H.....Mich Dept. of Hlth, Lansing 4
Garlinghouse, A. John, Jr.....408 N. Capitol Ave., Lansing 33
George, Harry C.....335 Seymour St., Lansing 33
Goldner, Roy E.....1318 S. Washington Ave., Lansing 10
Govons, Sidney R.....408 N. Capitol Ave., Lansing 33
Grey, Anna B.....219 Oakland Dr., East Lansing
Kent, A. Edith Hall.....311 S. Pine St., Lansing 15
Hames, R. E. 119 E. Grand River, East Lansing
Hanna, Roger J.....321 Bailey, East Lansing
Harris, Herbert W.....609 N. Washington Ave., Lansing 15
Harrison, Wm. H.....834 W. St. Joseph St., Lansing 15
Harrold, Jesse F.....326 W. Ionia, Lansing 33
Hart, Lloyd C.....119 W. Lenawee St., Lansing
Hatton, R. L. (A) 1218 Theodore, Lansing
Hautau, Emily R.....308 Highland Ave., East Lansing
Hayes, Robt. E.....1101 S. Washington, Lansing 10
Hayford, Wm. D.....609 N. Washington Ave., Lansing 33
Heald, Gordon H.....830 Walbridge, East Lansing
Heckert, Frank B...103 N. Washington Ave., Lansing 16
Heckert, Jos. K.....101 N. Washington Ave., Lansing 16
Heerdt, Mark E.....Box 276, Okemos
Henderson, Norman D.....826 Sunset Lane, East Lansing
Henry, Leonard L.....250 Cowley, East Lansing
Henry, Robt. A.....1511 W. Mt. Hope Ave., Lansing 15
Hermes, Edgar J. 604 W. Willow St., Lansing
Heustis, Albert E.....410 Cowley, East Lansing
Himmelberger, R. J.....227 West St., Lansing 15
Hiscoe, D. Bonta.....326 Townsend St., Lansing
Hoffer, W. E.....331 Shepard St., Lansing
Holland, Chas. F.....166 Orchard St., East Lansing
Horvath, Francis (A)....St. Lawrence Hospital, Lansing

Hoyt, John C. (A).....St. Lawrence Hospital, Lansing
Huggett, Clare C.....1531 Osborn Rd., Lansing 15
Hurth, M. S.....1717 Jerome St., Lansing
Isbister, J. L.....Dept. Hlth., DeWitt Rd., Lansing
Jackacki, Richard (A)..E. W. Sparrow Hospital, Lansing
Jacob, S. Sprigg, III.....201 Ann St., East Lansing
Johnson, David B.....1211 Bank of Lansing, Lansing
Johnson, Henry T.....1439 E. Michigan, Lansing 12
Johnson, Kenneth H.....1539 Spencer, Lansing 15
Johnson, Reed P. (A)....Box 1122 VA Hosp., Hines, Ill.
Johnson, Richard.....521 N. Capitol Ave., Lansing
Jones, Francis A., Jr.....124 W. Allegan St., Lansing 2
Jones, Frank (A).....St. Lawrence Hospital, Lansing
June, Robt. C.....426 S. Walnut St., Lansing 33
Kahn, David.....101 S. Washington Ave., Lansing 2
Kalmbach, Roland E.....301 Seymour Ave., Lansing 15
Katlein, Stanley 4172 Dallas, Holt
Kelly, William.....Cass Bldg., Lansing
Kent, Herbert K.....M. O. Box 1167, Lansing 13
Kenyon, Fanny H.....624 LaSalle Blvd., Lansing 12
Klunzinger, W. R.....326 W. Ionia St., Lansing 33
Kraft, Lester C.....209 S. Main St., Leslie
Landy, Geo. R.....1023 N. Jenisen St., Lansing 15
Lange, Philip F.....1923 S. Cedar St., Lansing 10
Lanting, Helen E. P.....231 N. Jenison St., Lansing 15
Lauzun, Virginia D.....309 W. Main St., Lansing 15
Le Duc, Don M.....317 W. St. Joseph St., Lansing 31
Leeder, Fredk. S.....Mich. Dept. of Hlth., Lansing 4
Leshock, Jos. C.....1437 E. Michigan St., Lansing 12
Letourneau, Roger A. (A)..St. Lawrence Hosp., Lansing
Levett, Harry L.....117 W. Shiawassee, Lansing 30
Lewis, Clayton, Jr. 903 E. Grand River, East Lansing
Linnell, Paul C. (A).....St. Lawrence Hosp., Lansing
Long, Chas. O., Jr.....1831 Roseland, East Lansing
Lopez, Jose (A) St. Lawrence Hospital, Lansing
Loree, Maurice C.....120 W. Hillsdale St., Lansing 15
Lucas, Thos. A.....426 W. Ottawa St., Lansing 15
Ludlum, Lewis C.....1126 W. Saginaw St., Lansing 15
Malcolm, Henry E.....401 W. Grand River, East Lansing
Mannausa, L. R. (A).....3415 Hagan St., Lansing
Martin, Wayne O.....4765 Nakoma Dr., Okemos
Marzolf, M. Finette.....300 W. Ottawa, Lansing 33
Mavromatis, Fedon (A)..St. Lawrence Hospital, Lansing
McConnell, Elmer G. (R).....212 Leslie St., Lansing
McCorvie, C. Ray.....903 E. Grand River Ave., East Lansing
McCorvie, Donald R.....129 E. Grand River, Williamston
McElmurry, Leland R.....209 N. Walnut St., Lansing 15
McGillicuddy, O. B.....1816 Michigan National Tower, Lansing
McGillicuddy, R. J.....300 W. Ottawa St., Lansing 15
McIntyre, J. Earl (L)....600 S. Grand Ave., Lansing 33
McNamara, B. Edward....326 Townsend St., Lansing 15
Meade, Wm. H.....535 Ardson Rd., East Lansing
Meilleur, Paul A. (A).....St. Lawrence Hosp., Lansing
Melick, Richard C.....326 W. Ionia, Lansing 33
Menzies, Clifford G.....Mich. State Coll. Hosp., East Lansing
Mercer, Walter E.....909 Glenhaven, East Lansing
Meyer, Hugh R. (R).....2117 Teel Ave., Lansing
Miller, Willard J. (A).....611 S. Walnut, Lansing
Mitchell, William (A)....St. Lawrence Hospital, Lansing
Molina, Elba.....1512 E. Michigan, Lansing 12
Monfort, Robt. N...Mich. State University, East Lansing
Morris, Leo C. (A).....St. Lawrence Hospital, Lansing
Morrow, Robt J.....412 N. Capitol, Lansing
Nadeau, John H.....1712 Seventh St., Menominee
Nakfoor, Eugene C.....1515 W. Mt. Hope, Lansing
Neering, James C.....1210 W. Saginaw, Lansing 15
Nejib, Suhalia S. (A)....E. W. Sparrow Hospital, Lansing
Newitt, A. W.....Ingham Co. Hlth Dept., Lansing
Newman, John R. (A).....3526 W. Saginaw, Lansing
Nieuwkerk, Willem (A)....St. Lawrence Hospital, Lansing
Niland, Paul T.....1222 Blake, Lansing
Nobel, Rudolf E.....607 S. Capitol, Lansing
Ochsner, Paul J...Fisher Body Dv. GM Corp., Lansing 4
Packer, John H.....612 Everett Dr., Lansing
Paine, Wm. G. 609 N. Washington, Lansing 15
Palmer, R. E.....535 S. Capitol Ave., Lansing
Parker, Earl E.....207 E. Bellevue, Leslie
Peets, Ronald Grand River & Grandview, Okemos
Philips, David P.....333 N. Chestnut, Lansing 15
Pierce, Michael A. (A)....St. Lawrence Hospital, Lansing
Pinkham, Ray A. (R)....535 N. Capitol Ave., Lansing 33
Plesscher, Wm. H.....119 E. Grand River, East Lansing
Pomeroy, Richard W.....609 N. Washington, Lansing 33
Ponton, Jos. C.....Box 230, Mason
Poppen, Clarence J.....1057 Roxburgh Rd., East Lansing
Prall, Harry J.....214 W. Main St., Lansing 33
Randall, O. M.....7557 W. Saginaw St., Lansing
Rector, Frank L. (R).....2835 N.E. Brazee Court, Portland 12, Ore.
Reed, O. Grant 202 N.Hagadorn, East Lansing
Reynolds, Edward E.....153 E. Grand River Ave., Williamston
Richards, Frank D.....DeWitt
Richardson, Maurice L.....1215 E. Michigan Ave., Lansing 12
Rivera, Pablo M. (A)....St. Lawrence Hospital, Lansing
Robson, Edmund J.....215 N. Walnut St., Lansing 15
Roland, C. B.....1708 W. Main, Lansing
Rollstin, Robt. A.....1014 Townsend St., Lansing 21,
Rozan, Josef S.....103 N. Washington Ave., Lansing 16
Ruhmkorff, Ralph H.....MSU Hlth. Service, East Lansing
Russell, Claude V. (R).....Hotel Porter, Lansing
Rutledge, Samuel H., Jr.....110 W. Hillsdale St., Lansing 33
Saenz, Hugo (A).....St. Lawrence Hospital, Lansing
Sander, Charles H. (A)..St. Lawrence Hospital, Lansing
Sander, John F.....4780 Okemos Rd., Okemos
Scallin, J. F.....125 W. Saginaw St., Lansing
Scheidt, R. Rudolph.....126 W. Grand River Ave., Lansing 6
Schmidt, Harry J.....903 Mich. Nat'l Tower, Lansing
Schultz, Arthur E.....4646 Ottowa Dr., Okemos
Seger, Fred L. (L).....1035 Cherry St. N.E., St. Petersburg 4, Fla.
Shapiro, Hyman D.....201 W. Hillsdale St., Lansing 33
Sharp, Mahlon S.....521 N. Capitol, Lansing 33
Shaw, Milton.....320 Townsend St., Lansing 15
Sherman, Geo. A.....112 W. Hillsdale, Lansing 15
Sichler, Harper G.....301 Seymour Ave., Lansing 15
Sie, Ingliat (A).....St. Lawrence Hospital, Lansing
Siegel, David.....103 N. Washington Ave., Lansing 16
Sikkema, Wesley W. (A).....E. W. Sparrow Hospital, Lansing
Silverman, Irving E.....1009 E. Michigan, Lansing 12
Slaughter, Isaac (A)....St. Lawrence Hospital, Lansing
Sleight, Justin L.....117 W. Shiawassee St., Lansing 15
Smith, Anthony V.....116 W. Sycamore, Mason
Smookler, Bernard H.....1139 Gould Rd., Lansing
Snyder, Le Moyne.....General Delivery, Paradise, Calif.
Snyder, Ruth C. E.....234 W. Michigan Ave., East Lansing
Spagnuolo, Alfred J.....2304 Marion Ave., Lansing 10
Spalding, R. W.....Box 900, Lansing
Spencer, Perry C.....320 Townsend St., Lansing 15
Stanka, Andrew G. (L).....Grand Ledge
Stanley, Arthur L.....401 W. Greenlawn Ave., Lansing 9
Stehman, Vernon A.....Lewis Cass Bldg., Lansing
Steiner, Abraham A. (A).....Rt. 3, Grand Ledge
Steiner, Starling D.....Oldsmobile Div. GM Corp. Lansing 21
Stephan, Winton E.....301 Seymour, Lansing
Stiles, Frank, Jr.....615 Northlawn, East Lansing
Stilwill, Geo. D. (A)....5 Briar Lane, Newtonville, Mass.
Stimson, Paul R. 515 S. Grand, Lansing 33
Stone, Benj. J.....1031 E. Michigan, Lansing 12
Stow, Robt. M.....124 W. Allegan St., Lansing 8
Strauss, Percival C.....101 S. Washington, Lansing 16
Stringer, C. J.....401 W. Greenlawn Ave., Lansing 9
Sundell, Edwin C.....122 W. Hillsdale St., Lansing 15
Swartz, Fredk. C.....215 N. Walnut, Lansing
Tamblyn, Fredk. W.....335 Seymour Ave., Lansing 33
Thaden, D. W. 208 MAC Ave., East Lansing

Toothaker, Kenneth W...1609 W. Michigan, Lansing 15
Trescott, Robt. F.....716 Michigan National Tower, Lansing
Trimby, Robert H.....122 W. Hillsdale St., Lansing 15
Troost, Franklin L.....4341 W. Delhi Rd., Holt
Urban, Eva.....540 Glenmoor, East Lansing
Vanderzalm, T. P.....1452 Cambridge Rd., Lansing 15
Velten, Hubert (A)....St. Lawrence Hospital, Lansing
Venier, Jos. H.....Michigan Ave., Box 2184, Lansing
Vergara, Victorino (A).....St. Lawrence Hosp., Lansing
Wadley, Ralph.....333 Seymour Ave., Lansing 33
Wainright, James W.....215 N. Walnut St., Lansing
Walker, Leo W.....1302 Pershing Dr., Lansing 10
Wellman, John M.....301 Seymour Ave., Lansing 33
Wilensky, Thos.....201 W. Hillsdale, Lansing 33
Wilker, Richard F. (A)....E. W. Sparrow Hosp., Lansing
Willson, Howard S.....124 W. Allegan St., Lansing 8
Wolcott, Lester E...Grand River and Grandview, Okemos
Worthington, Ralph.....717 Britten Ave., Lansing 15

IONIA-MONTCALM COUNTIES

Anderson, D. Hess.....207 Bridge St., Portland
Bird, Wm. L.....110 W. Cass St., Greenville
Birzgalis, Alfreds A.....Ionia State Hosp., Ionia
Buck, Jack H.....118 N. Jefferson, Ionia
Bunce, Earl P. (L).....Trufant
Bunce, Leo W.....Trufant
Campbell, Richard E.....340 E. Main St., Ionia
Dunkin, Lloyd S.....410 S. Clay St., Greenville
Fleming, John W. C. (L).....Pewamo
Foust, Jos. C.....448 Baldie St., Ionia
Fox, Harold M.....Portland
Geib, Oscar P. (L).....Carson City
Glerum, John B.....507 S. Lafayette St., Greenville
Haarer, John G.....Ionia State Hosp., Ionia
Halick, John.....218 Orange St., Greenville
Hansen, Carl M.....Stanton
Hansen, Marco M.....127 S. Lafayette St., Greenville
Haskell, Robt H. (L).....1232 Thirteenth St. N.W., Winter Haven, Fla.
Hoffs, Marinus A.....Shellborn Bldg., Lake Odessa
Hollard, Alfred E. (L).....Belding
House, Glenn W., Jr.....507 S. Lafayette St., Greenville
Kazmers, Nikolas.....Lakeview
Kopchick, Jos.....Muir
Kozachik, Martin J.....123 Bridge St., Portland
Kwast, Harold A. (M).....123 Bridge St., Portland
Leider, Thos. R.....230½ W. Main St., Ionia
Lilly, Isaac S. (L).....Stanton
Lincoln, Norman V.....Lake Odessa
London, John L.....Lakeview
Marston, Leo L.....Box 235, Lakeview
Minich, Wm. G.....103 E. Washington St., Belding
Olsen, Bruce C.....110 W. Cass St., Greenville
Pates, Don C.....Belding
Peabody, Chas. H. (L)....582 Tod Lane, Youngstown, O.
Reid, Harold E.....Stanton
Rice, Robt. E.....P.O. Box 271, Greenville
Robertson, Perry C. (L).....327 Center St., Ionia
Slagh, Milton E.....Saranac
Smith, Robt. O.....724 Roselawn, Ionia
Socha, Edmund S.....217 E. Main, Ionia
Stevens, Charles E.....Greenville
Swift, Earle R. (L).....Lakeview
Tannheimer, John F.....525 Lafayette St., Ionia
Tromp, Jack L.....Rt. 3, Lake Odessa
Van Dam, F. R.....Drawer 494, Ionia
Van Loo, Jacob.....103 E. Washington St., Belding

JACKSON COUNTY

Adams, Ellis W.....517 Wildwood Ave., Jackson
Ahronheim, J. H.....Foote Memorial Hosp., Jackson
Appel, Saul.....112 W. Michigan Ave., Jackson
Baker, Geo. M.....350 S. Union, Parma
Beckwith, Sidney A.....100 E. Main St., Stockbridge
Bentley, Jack P.....404 McNeal St., Jackson
Bentley, Mary E. N.....404 McNeal St., Jackson
Brashares, Zane A.....Brooklyn
Bullen, G. R. 418 Third St., Jackson
Clarke, Corwin S.....1046 4th St., Jackson
Cochrane, Wayne A. (L).....409 McBride St., Jackson
Cook, Geo. H. 10830 Bunker Hill Road, Jackson
Cooley, Chas. W. Mercy Hospital, Jackson
Cooley, Randall M.....141 E. Robinson St., Jackson
Corley, Cecil.....204 Homecrest Rd., Jackson
Corley, Ennis H. 1401 Reynolds Bldg., Jackson
Corley, Robt. W.....204 Homecrest Rd., Jackson
Cox, Ferdinand (L).....1601 4th St., Jackson
Culver, Guy D. L.....P.O. Box 38, Stockbridge
Daly, Byrne M.....709 Oakridge Dr., Jackson
De May, Cuthbert E.....403 E. Michigan Ave., Jackson
De May, John D.....403 E. Michigan Ave., Jackson
Deming, Richard C.....724 W. Franklin, Jackson
Dengler, Chas. R.....504 3rd St., Jackson
Dickman, Harry M.....120 N. Chunrch St., Hudson
Douglas, Edward W. (L).....4000 Cooper St., Jackson
Filip, Hypolit K., Jr.....755 W. Michigan Ave., Jackson
Finton, Robt. E.....1204 Nat'l Bank Bldg., Jackson
Finton, Walter L. (L).....1502 Carlton Blvd., Jackson
Foust, Wm. L.....219 E. Michigan, Grass Lake
Garlock, Grant L.....1065 Westfield Dr., Jackson
Gibson, Frank J. (L).....2717 6th St. S., St. Petersburg 5, Fla.
Greenbaum, Harry.....1203 Greenwood Ave., Jackson
Growt, Bowers H.....Addison
Habenicht, Hilda A.....718 Glenwood St., Jackson
Hackett, Thos. L.....519 N. East Ave., Jackson
Hanft, Cyril F.....144 E. Main St., Springfield
Hanson, Victor R.....Chelsea
Hardie, Geo. C.....290 W. Michigan Ave., Jackson
Hicks, Glenn C. (L).....1009 Wildwood Ave., Jackson
Holst, John B.....606 City Bank Bldg., Jackson
Holstein, Arthur P.....724 W. Franklin, Jackson
Horning, David J.....237 W. Washington, Jackson
Hunt, Maurice E.....2534 Francis St., Jackson
Huntley, W. B. (L)....770 32nd St. S., St. Petersburg, Fla.
Joerin, Wm. A. 612 First St., Jackson
Karr, Jean P.....502 W. Michigan Ave., Jackson
Keefer, Albert H.....Concord
Kempton, Geo. B.....511 S. West Ave., Jackson
Kiessling, A. J., Jr.....511 S. West Ave., Jakcson
Kline, Starr L.....3525 Jefferson Rd., Clarklake
Kobs, Robt. J.....600 Nat'l Bank Bldg., Jackson
Kudner, Donald F.....435 Wildwood Ave., Jackson
Lake, Edward C.....612 1st St., Jackson
Landron, Daniel.....4633 Page, Michigan Center
Lenz, Chas. R., Jr.....405 1st St., Jackson
Lewis, Elmore F.....1112 Carlton Blvd., Jackson
Linden, Victor E.....112 W. Michigan Ave., Jackson
Ludwick, John E.....237 W. Washington Ave., Jackson
Ludwick, John P.....237 W. Washington Ave., Jackson
McGarvey, Wm. E.....161 W. Michigan Ave., Jackson
McLaughlin, John M. 710 S. Brown St., Jackson
McLaughlin, Miar J.....710 S. Brown St., Jackson
McLauthlin, H. B.....439 Wildwood Ave., Jackson

Meads, Jason B.....161 W. Michigan Ave., Jackson
Medlar, Robt. E.....407 S. Wisner, Jackson
Morelli, Lorenzo.....401 W. Prospect St., Jackson
Muhich, Ralph A.....1204 First St., Jackson
Munro, Colin D. (L).....740 W. Michigan, Jackson
Munro, James E. (L).....1015 Pigeon St., Jackson
Munro, Nathan D.....740 W. Michigan Ave., Jackson
Murphy, Bernard M. 1134 E. Ganson St., Jackson
Musson, E. K.....City Hall, Jackson
Newton, Ray E.....180 W. Michigan Ave., Jackson
Oleksy, Stanley P.....744 W. Michigan Ave., Jackson
Olsen, Lloyd L.....435 Wildwood Ave., Jackson
Oster, Harold L.....1218 Greenwood Ave., Jackson
Otis, Grant L.....525 Wildwood Ave., Jackson
Papadopulos, Valentina..1111 E. Michigan Ave., Jackson
Payne, Andrew K. Foote Memorial Hosp., Jackson
Phillips, Geo. H.....Jackson Co. T. B. San., Jackson
Porter, Horace W.....505 Wildwood Ave., Jackson
Pray, Frank F. (L).....310 Steward Ave., Jackson
Pray, Geo. R. (L).....404 S. Jackson St., Jackson
Preston, Joseph A.....Mercy Hosp., Jackson
Rice, John W.....421 McNeal St., Jackson
Ries, Richard G.....612 First St., Jackson
Riley, Philip A.....500 S. Jackson St., Jackson
Riley, Philip A., Jr.....500 S. Jackson St., Jackson
Sargent, Leland E. Foote Memorial Hosp., Jackson
Sautter, Wm. A.....Horton
Schmidt, Theophile E.....180 W. Michigan Ave., Jackson
Scott, John A., Jr.....432 W. Michigan, Jackson
Shaeffer, Arthur M.....1615 Carlton Blvd., Jackson
Shaeffer, Leland D.....1615 Carlton Blvd., Jackson
Sher, David B.....4000 Cooper St., Jackson
Sill, Henry W.....290 W. Michigan Ave., Jackson
Sirhal, Alfred M.....Brooklyn
Smith, Dean W. 500 W. Michigan, Jackson
Southwick, W. A. 4000 Cooper St., Jackson
Stackable, Wm. R.....439 Wildwood Ave., Jackson
Stewart, Lewis L. (L).....308 Edgewood St., Jackson
Stewart, Lewis L., Jr.....180 W. Michigan Ave., Jackson
Stolberg, Carl A.....724 W. Franklin, Jackson
Stone, Ethon L.....721 Seventeenth St., Jackson
Sugar, Samuel.....180 W. Michigan Ave., Jackson
Tate, Cecil E.....1315 Francis St., Jackson
Taylor, Ross V.....517 Wildwood Ave., Jackson
Thalner, Leonard F.....609 W. Michigan Ave., Jackson
Thayer, Earl A.....120 W. Michigan Ave., Jackson
Thompson, T. B.....434 Wildwood Ave., Jackson
Torwick, Edward T.....112 W. Michigan Ave., Jackson
Townsend, James W.....108 Hague Ave., Jackson
Van Schoick, Frank.....419 W. High St., Jackson
Van Schoick, John D.....Hanover
Van Wagnen, F. I., Jr.....434 Wildwood Ave., Jackson
Vivirski, Edward E.....603 S. Elm Ave., Jackson
Weddon, Edward R.....Rt. 2, Stockbridge
Wholihan, John W. 604 W. Michigan Ave., Jackson
Wickham, Woodward A...420 W. Michigan Ave., Jackson
Wille, Warren S.....1204 First St., Jackson
Winter, Geo. E. (L).....2333 22d St. S., St. Petersburg 5, Fla.
Young, Allan G.....118 Moore St., Jackson

KALAMAZOO COUNTY

Aach, Hugo A.....3314 Bronson Blvd., Kalamazoo 37
Alexander, C. A.....118 W. North St., Kalamazoo
Andrews, Sherman E.....224 E. Cedar St., Kalamazoo 8
Angell, Howard H. (A)....301 Henrietta St., Kalamazoo
Appel, Ben A.....252 E. Lovell St., Kalamazoo
Appel, Wm. P.....252 E. Lovell St., Kalamazoo 8
Armstrong, Robt. J.....103 N. Burdick St., Kalamazoo
Banner, Lawrence R.....507 S. Burdick St., Kalamazoo
Barak, Herbert G.....350 S. Burdick St., Kalamazoo
Barnebee, James W. (L)..503 S. Burdick St., Kalamazoo
Barows, Winona M.....1500 Blakslee St., Kalamazoo
Barry, Manley L.....Plainwell San., Plainwell
Bennett, Keith F.....252 E. Lovell St., Kalamazoo
Betz, Eldean G.....252 E. Lovell St., Kalamazoo 6
Birch, Wm. G.....252 E. Lovell Ave., Kalamazoo 5
Bodmer, Harvey C...403 W. Kalamazoo Ave., Kalamazoo
Bond, Glenn C. (A).....301 Montrose, Kalamazoo
Borden, Igor I. 3504 Par 4 Circle, Kalamazoo
Borgman, Wallace.....420 W. John St., Kalamazoo 46
Breneman, James C.....Galesburg
Brown, Irmel W.....107 W. Michigan Ave., Kalamazoo
Brue, Peter P.....1009 Cambridge Dr., Kalamazoo
Burbidge, Earl L.....359 Park Ave., Parchment 15
Burrell, Robt. B.....136 E. Michigan Ave., Kalamazoo
Caldwell, Clyde T., Ph.D. (A).....2112 Sheffield Dr., Kalamazoo
Callander, C. Glen.....252 E. Lovell St., Kalamazoo
Cartland, Geo. F., Ph.D. (A).....1704 Dover Rd., Kalamazoo
Cashen, Russel M.....252 E. Lovell St., Kalamazoo
Chrest, Clarence P.....458 W. South St., Kalamazoo
Clement, F. L.....420 John St., Kalamazoo
Cobb, Horace R.....132 W. South St., Kalamazoo 9
Conger, T. W., Ph.D. (A).....Upjohn Company, Kalamazoo
Conrad, Maynard M.....252 E. Lovell St., Kalamazoo
Cook, Ralph G. (L).....350 S. Burdick St., Kalamazoo
Cooper, Paul F.....4326 Oakland Dr., Kalamazoo
Crane, Warren B. Rt. 1, Richland
Crawford, Kenneth L.....612 Douglas, Kalamazoo
Creager, Ray O.....1218 Bronson Circle, Kalamazoo
Cretsinger, Francis C.....224 E. Cedar St., Kalamazoo
Currier, Richard K.....6646 Portage Rd., Kalamazoo
Dahlstrom, Doris E...723 S. Westnedge Ave., Kalamazoo
Dana, Robt. L.....228 W. Cedar St., Kalamazoo
Decker, Wm. A.....1145 Oakland Dr., Kalamazoo
Delbert, Stewart G.....914 S. Burdick St., Kalamazoo
DeLong, Robt. E.....2215 Crane Ave., Kalamazoo
DePree, Harold E.....252 E. Lovell St., Kalamazoo
Dew, Robt. R.....2253 Sheffield Dr., Kalamazoo
DeWitt, Norman L.....103 N. Burdick St., Kalamazoo
Dick, Leo A.....428 Stuart Ave., Kalamazoo
Doezema, Edward R.....516 Whites Rd., Kalamazoo
Dowd, Bennard J.....1415 Henderson Dr., Kalamazoo
Doyle, Fredk. M.....3320 Bronson Blvd., Kalamazoo 37
Dugger, James A. (A).....2901 S. Westnedge Ave., Kalamazoo
Endrei, Arisztid.....1312 Oakland Dr., Kalamazoo
Estill, Don V.....414 W. Patterson St., Kalamazoo
Fancher, James A. (A)....301 Henrietta St., Kalamazoo
Fast, Ralph B.....136 E. Michigan Ave., Kalamazoo
Fath, August F.....136 E. Michigan Ave., Kalamazoo 12
Finton, Max A.....252 E. Lovell St., Kalamazoo
Flunt, Roman....Box A, Kalamazoo St. Hosp., Kalamazoo
Fopeano, John V.....136 E. Michigan Ave., Kalamazoo
French, Merle R..... 1128 Miles Ave., Kalamazoo
Fulkerson, Clark B. (L)....425 S. Westnedge, Kalamazoo
Fuller, Paul M.....1700 Gull Rd., Kalamazoo
Gardner, Carl A...1410 American Nat'l Bank, Kalamazoo
Gerstner, Louis W.....2425 Law Ave., Kalamazoo
Gladstone, Wm. S.....458 W. South St., Kalamazoo
Glaser, Daniel F.....463 Academy St., Kalamazoo
Goodhue, Lolita G.....2503 W. Main St., Kalamazoo
Grant, Fredk. E. (L).....214 Douglas Ave., Kalamazoo
Gregg, U. Sherman (L).....334 S. Park St., Kalamazoo
Green, Wm. L.....136 E. Michigan Ave., Kalamazoo 4
Grekin, Robt. H.....136 E. Michigan Ave., Kalamazoo
Gremel, Norman.....458 W. South St., Kalamazoo
Haddock, D. A., Jr.....6646 Portage St., Kalamazoo
Hailman, Harold F. (A)....301 Henrietta St., Kalamazoo
Hammer, John M.....100 Maple St., Parchment
Hanson, Curtis M.....252 E. Lovell St., Kalamazoo
Harrell, Frank G.....420 John St., Kalamazoo
Harrelson, Wm. D.....3625 Old Colony Rd., Kalamazoo

Harvey, Donald A.....2913 Parkwyn Dr., Kalamazoo
Hayner, Russell A.....4015 Portage, Kalamazoo
Heersma, H. Sidney.....252 E. Lovell, Kalamazoo
Heinle, Robt. W.....Med. Div., Upjohn Co., Kalamazoo
Herbert, Walter N.....1223 S. Park St., Kalamazoo
Hersey, E. Freeman.....516 Whites Rd., Kalamazoo
Hersey, Margaret S.....4407 Bronson Blvd., Kalamazoo
Hildreth, Roscoe C.....458 W. South St., Kalamazoo 46
Hodgeman, Albert B.....1601 Grand Ave., Kalamazoo
Hoebeke, Wm. G.....252 E. Lovell St., Kalamazoo
Holder, Chas O.....1312 Oakland Dr., Kalamazoo
Howard, R. Grant.....2025 Chevy Chase, Kalamazoo
Howard, Willard H.....1602 Gull Rd., Kalamazoo
Hubbell, Reader J.....252 E. Lovell St., Kalamazoo
Hume, Robt. H.....705 Hanselman Bldg., Kalamazoo
Huyser, Wm. C.....427 S. Burdick St., Kalamazoo
Irwin, Wm. D.....103 N. Burdick St., Kalamazoo
Jennings, Robt. M.....Box A., Kalamazoo
Johnson, Fenimore T. (A).....Med. Div., Upjohn Co., Kalamazoo
Kavanaugh, John.....1223 S. Park St., Kalamazoo
Kavanaugh, Wm. R.....612 Douglas Ave., Kalamazoo
Kercher, Ervin F.....224 E. Cedar St., Kalamazoo
Kilgore, Robt. N.....252 E. Lovell St., Kalamazoo
Klerk, Wm. J.....914 S. Burdick St., Kalamazoo
Koestner, Paul A.....1303 Portage St., Kalamazoo
Kuizenga, Marvin R. (A).....Upjohn Co., Kalamazoo
Lavender, Howard C.....136 E. Michigan Ave., Kalamazoo
Lawrence, James O.....1409 Henderson Dr., Kalamazoo
Lemmer, Richard A.....252 E. Lovell St., Kalamazoo
Light, Richard U.....828 W. South St., Kalamazoo 49
Light, Rudolph S.....136 E. Michigan Ave., Kalamazoo
Littig, John D.....1708 Embury Rd., Kalamazoo
Locklin, W. Kaye.....136 E. Michigan, Kalamazoo
Louisell, James M.....1223 S. Park St., Kalamazoo
Loynd, James W., II.....1324 S. Park St., Kalamazoo
MacDonald, M. A...2824 Hill N Brook Dr., Kalamazoo
MacGregor, John R.....100 Maple St., Parchment
Machin, Harold A.....2348 Tipperary Rd., Kalamazoo
Malone, James G.....420 John St., Kalamazoo
Margolis, Fredk. J.....2901 S. Westnedge, Kalamazoo
Marshall, Don.....252 E. Lovell St., Kalamazoo
Marshall, Evelyn M. W. (A).....2344 Sheffield Dr., Kalamazoo
Marshall, Wm. P.....160 Edgemoor Ave., Kalamazoo
Martens, Irvin J.....1521 Gull Rd., Kalamazoo
May, Donald G.....516 Whites Rd., Kalamazoo
McCarthy, Jos. S.....Box A, Kalamazoo
McLeod, Garrard A. (A)..Upjohn Company, Kalamazoo
McManus, James W.....1416 Academy St., Kalamazoo
McMillan, Donald W.....420 John St., Kalamazoo
Mellis, Richard.....516 Whites Rd., Kalamazoo
Moe, Carl R.....1324 S. Park St., Kalamazoo
Morter, Roy A.....2421 Sheffield, Kalamazoo
Neerken, Adrian J.....1318 American Nat'l Bldg., Kalamazoo
Nicholson, Robt. M.....252 E. Lovell, Kalamazoo
O'Donovan, C. J.....2659 Sunnybrook Dr., Kalamazoo
Overby, Chas. B., Jr.....1000 Oakland Dr., Kalamazoo
Patmos, Martin.....1207 Cherry St., Kalamazoo
Peake, Charles O., III.....252 E. Lovell St., Kalamazoo
Pearson, Edwin O.....458 W. South St., Kalamazoo 46
Peelen, J. W.....516 Whites Rd., Kalamazoo
Peelen, Matthew.....252 E. Lovell St., Kalamazoo
Peltier, Hubert C. (A).....The Upjohn Co., Kalamazoo
Perry, Clifton W.....2030 Waite Ave., Kalamazoo 40
Pinkham, Raymond A.....316 Henrietta St., Kalamazoo
Prentice, Hazel R.....2413 W. Main St., Kalamazoo
Pullon, Alton E.....1223 S. Park St., Kalamazoo
Rasmussen, Leo B.....152 N. Main St., Vicksburg
Reames, Harold R.....2704 Brookhaven Rd., Kalamazoo
Rigterink, Gerald H.....136 E. Michigan, Kalamazoo
Roberts, Millard S.....118 Bulkley St., Kalamazoo 49
Rockwell, Donald C.....1227 Jefferson, Kalamazoo 48
Rogers, Rodney J.....126 N. Kalamazoo, Vicksburg
Rutherford, P. S.....Borgess Hospital, Kalamazoo
Ryan, Frederick C.....507 S. Burdick St., Kalamazoo 8
Sage, Edward D. (L).....No address
Scherer, Flora E.....3628 Bronson, Kalamazoo
Scholten, Dirk J. (L).....522 S. Burdick St., Kalamazoo
Scholten, Roger A.....252 E. Lowell St., Kalamazoo
Scholten, William (R)..Box A, Kalamazoo State Hospital, Kalamazoo
Schrieber, R. S. (A).....Upjohn Co., Kalamazoo
Schrier, Clarence T.....1000 Oakland Dr., Kalamazoo
Schrier, Paul G.....252 E. Lovell St., Kalamazoo
Schrier, Thomas.....Box 88, Comstock
Scott, William A.....252 E. Lovell St., Kalamazoo
Shook, Ralph W.....136 E. Michigan Ave., Kalamazoo
Siemsen, Walter J.....3424 Old Colony Rd., Kalamazoo
Simpson, Bernard W.....610 So. Burdick, Kalamazoo
Sisk, Wilfred N.....301 Henrietta St., Kalamazoo
Slatmyer, Karel R., Jr.....103 N. Burdick St., Kalamazoo
Smith, Thomas C.....1000 Oakland Dr., Kalamazoo
Sofen, Morris B.....107 W. Michigan Ave., Kalamazoo
Southworth, M. N.....Schoolcraft
Stewart, R. B.....605 Hanselman Bldg., Kalamazoo
Stewart, William C., Jr.....224 E. Cedar St., Kalamazoo
Stiller, Anthony F.....1500 Blakslee St., Kalamazoo
Stodden, Charlotte L. (A).....2216 Sheffield Dr., Kalamazoo
Stryker, Homer H.....1521 Gull St., Kalamazoo
Talanda, Edmund.....224 E. Cedar St., Kalamazoo
Talley, Robert W. (A).....301 Henrietta St., Kalamazoo
Tucker, Harold A. (A).....Upjohn Co., Kalamazoo
Upjohn, E. Gifford.....301 Henrietta St., Kalamazoo
Vander Velde, K. M...Bronson Med. Center, Kalamazoo
Verhage, Martin D.....228 W. Cedar St., Kalamazoo
Volderauer, John C.....458 W. South St., Kalamazoo
Warnke, Robert D.....3012 Kenilworth Ave., Kalamazoo
Weadon, Preston S.....252 E. Lovell St., Kalamazoo
Webb, Joseph P. (A).....301 Henrietta St., Kalamazoo
Wenner, William F. (A).....1715 Cambridge Rd., Kalamazoo
Wickliffe, Robert C.....136 E. Michigan Ave., Kalamazoo
Wilbur, Edward P. (L)..1730 Dover Rd., Kalamazoo 38
Williamson, Edwin M.....252 E. Lovell St., Kalamazoo
Wu, Jack F.....810 E. Center Ave., Kalamazoo
Youngs, Cyril A.....416 So. Burdick St., Kalamazoo
Young, Edgar W., Jr. (A).....Upjohn Co., Kalamazoo
Youngs, Amos S. (L).....416 S. Burdick St., Kalamazoo
Zolen, Margaret H.....628 S. Park St., Kalamazoo

KENT COUNTY

Adams, Frank A.....526 Leonard St. N.W., Grand Rapids
Aitken, George T...50 College Ave. S.E., Grand Rapids 3
Albers, G. Donald....203 Paris Ave. S.E., Grand Rapids 3
Albers, Robert (A).....253 Morris, Grand Rapids
Aldridge, Charles W., Jr.....1516 Wealthy St. S.E., Grand Rapids 6
Alfenito, Felix S., Jr.....26 Sheldon Ave. S.E., Grand Rapids 2
Alger, George D...2060 Alpine Ave. N.W., Grand Rapids
Allen, Ralph V.....1669 Plainfield Ave. N.E., Grand Rapids 5
Anderson, Karl A. (A).....505 Cherry St. S.E., Grand Rapids
Andre, Harvey M...500 Cherry St. S.E., Grand Rapids 3
Avery, Noyes L., Jr...833 Lake Dr. S.E., Grand Rapids 6
Baert, George H. (L).....631 Prospect Ave. S.E., Grand Rapids 2
Baker, Abel J. (L).....74 Ionia Ave. N.W., Grand Rapids 2
Baker, Robert J. (M).....1103 Rockwood St., Colorado Springs, Colo.
Ballard, Milner S...146 Monroe Ave. N.W., Grand Rapids

Balyeat, Gordon W.....150 Morningside Dr., Grand Rapids 6
Barofsky, Gerald F.....808 Alger St. S.E., Grand Rapids 7
Bartek, Gordon L.....110 E. Fulton St., Grand Rapids
Basinger, Clair E...1810 Wealthy St. S.E., Grand Rapids
Baum, William C...26 Sheldon Ave. S.E., Grand Rapids
Beaton, Jame H.....1516 Wealthy St. S.E., Grand Rapids 6
Beeman, Carl B.....833 Lake Dr. S.E., Grand Rapids 6
Beets, W. Clarence....124 Fulton St. E., Grand Rapids 2
Bell, Charles M.....50 College Ave. S.E., Grand Rapids 3
Benjamin, Howard G.....72 Sheldon Ave. S.E., Grand Rapids 2
Bennett, W. Bruce.....1632 Leonard St. N.W., Grand Rapids 4
Bennett, William D.....1514 Wealthy St. S.E., Grand Rapids 6
Benson, Roland R.....250 Cherry St., Grand Rapids 3
Bergsma, Stuart (A).....1942 Sherman St. S.E., Grand Rapids 6
Bettison, William L. (A).....312 Baltimore, N.E., Grand Rapids
Beukema, Marenus J.....6850 S. Division Ave., Grand Rapids 8
Bignall, C. Rexford..62 Ransom Ave. N.E., Grand Rapids
Bird, Frank L.....456 Cherry St. S.E., Grand Rapids
Blackburn, Henry M.....116 E. Fulton St., Grand Rapids
Blocksma, Ralph..26 Sheldon Ave. S.E., Grand Rapids 2
Boelkins, Richard C.....125 Fountain St. N.E., Grand Rapids 3
Boerman, Walter J. (M).....Davis Monthan AFB, 43rd Tac. Hosp., Tucson, Ariz.
Boersma, Donald.....920 Chippewa, Grand Rapids
Boet, Frank A. (L).....849 Scribner Ave. N.W., Grand Rapids 4
Boet, John T.....2339 Wyoming Ave. S.W., Grand Rapids 9
Bond, George L. (L).....Rapid City
Bonzelaar, Marvin.....2740 Eastern Ave. S.E., Grand Rapids
Booher, Craig E.....1810 Wealthy St. S.E., Grand Rapids 6
Bosch, Leon C.....26 Sheldon Ave. S.E., Grand Rapids
Botting, A. J.....2360 84th St. S.W., Byron Center
Bowman, Harold E.....250 Cherry, S.E., Grand Rapids 3
Boyce, David C.....507 Loraine Bldg., Grand Rapids 2
Brace, Frederick C.....1498 Lake Dr. S.E., Grand Rapids 6
Bratt, Harvey J.....980 Hall St. S.E., Grand Rapids
Braunschneider, George E.....1632 Leonard St. N.W., Grand Rapids 4
Brink, J. Russel....50 College Ave. S.E., Grand Rapids 3
Brotherhood, James S. (L)....3239 Scenic Dr., Muskegon
Brown, Jack A. (A).....3711 Rector Rd., Rockford
Buist, Samuel J. (A).....California Hospital, Los Angeles, Calif.
Bull, Frank L.....72 E. Division, Sparta
Bultema, James H. (A)....4071 Highgate Rd., Muskegon
Burhans, John B.....418 Medical Arts Bldg., Grand Rapids
Burleson, John S.....531 Greenwood, S.E., Grand Rapids 6
Burling, Wesley M.....129 Michigan St. N.E., Grand Rapids 3
Burroughs, F. M., Jr.....11 Wilson S., Grandville
Butler, William J. (A)....6832 Tivani Dr., Tucson, Ariz.
Byers, Earle J. (L)....411 Ethel Ave. S.E., Grand Rapids
Byrd, Mary L.....700 Kent Hills Rd. N.E., Grand Rapids 5

Capps, Samuel C...100 Michigan St. N.E., Grand Rapids
Carbeck, Robert B. (A)....407 Park Dr., Phoenixville, Pa.
Carpenter, L. C.....50 College Ave. S.E., Grand Rapids 3
Caukin, Howard S...500 Cherry St. S.E., Grand Rapids 3
Cayce, William.....640 S. Kent Hills Rd. N.E, Grand Rapids 5
Champion, John P.....2222 Englewood, S.E., Grand Rapids 6
Chandler, Donald.....R.R. 4, East Belt Line, Grand Rapids 5
Chase, Robert J.....833 Lake Dr. S.E., Grand Rapids
Chen, Mey En.....2641 Albert Dr. S.E., Grand Rapids
Clahassey, Erwin G.....50 College Ave. S.E., Grand Rapids 3
Clawson, Carroll K.....445 Cherry St. S.E., Grand Rapids
Claytor, Robert W.....1424 Madison Ave. S.E., Grand Rapids 7
Corbus, Burton R. (L).....325 Union Ave. S.E., Grand Rapids
Crane, Harold D...26 Sheldon Ave. S.E., Grand Rapids 2
Cremer, John A.....911 Leonard St. N.W., Grand Rapids
Crissman, Richard K.....2747 Clyde Park, S.W., Grand Rapids
Currier, Fred P. (R).....955 Floral Dr. S.E., Grand Rapids 6

Dales, Ernest W. (L).....146-156 Monroe Ave. N.W., Grand Rapids 2
Damstra, Harold J.....1553 Boston St. S.E., Grand Rapids 7
Dassel, Paul M.....2641 Boston, S.E., Grand Rapids 6
Davis, David B.....26 Sheldon Ave. S.E., Grand Rapids 2
Davis, Roy A...1420 Berkshire Dr. S.E., Grand Rapids 8
Dawson, Walter D.....408 Medical Arts Bldg., Grand Rapids 2
Dean, Alfred (L).....Sagola
De Boer, Arthur F. (A).....1900 Jefferson, S.E., Grand Rapids
De Boer, Clarence J.....191 Elwood, Grandville
De Boer, Guy W...26 Sheldon Ave. S.E., Grand Rapids 2
De Maagd, Gerald.....143 Courtland, Rockford
De Mol, Richard J.....1414 Eastern Ave. S.E., Grand Rapids 7
Denham, Robert H.....50 College Ave. S.E., Grand Rapids 3
De Pree, Isla G.....14 Monroe Ave. N.E., Grand Rapids 2
De Pree, Joe.....1810 Wealthy St. S.E., Grand Rapids 6
De Vel, Leon..739 Plymouth Blvd. S.E., Grand Rapids 6
De Vries, Daniel.....1414 Eastern Ave. S.E., Grand Rapids 7
Dewey, Kent A.....26 Sheldon Ave. S.E., Grand Rapids 2
De Young, M. T.....1505 Twelve Mile Rd., Sparta
Dick, Mark W...146 Monroe Ave. N.W., Grand Rapids 2
Diskey, Donald G...634 Bridge St. N.W., Grand Rapids 4
Dixon, Willis L.....26 Sheldon Ave. S.E., Grand Rapids 2
Docter, Luebert....26 Sheldon Ave. S.E., Grand Rapids 2
Dood, Arnold R. (A).....2129 Eldon Drive, N.E., Grand Rapids 5
Dorain, Wallace B. (A).....1127 Wealthy, S.E., Grand Rapids
Doran, Frank L.....110 Fulton St. E., Grand Rapids 2
Doyle, John L...2402 Eastern Ave. S.E., Grand Rapids 7
Eary, L. Edmond, Jr.....52 Orchard Dr., Sparta
Eaton, Robert M.....12 Burton St. S.E., Grand Rapids 7
Ebling, John (M)..2225 Englewood, S.E., Grand Rapids
Eckmann, Bertram H.....734 Fuller Ave. N.E., Grand Rapids 3
Edholm, Curtis D. (A).....250 Cherry St. S.E., Grand Rapids
Eggleston, Harry R...117 Page St. N.E., Grand Rapids 5
Eldersveld, Herman C.....26 Sheldon Ave. S.E., Grand Rapids
Ellis, Michael E.....242 Jefferson, S.E., Grand Rapids
Failing, John F...2617 Lake Mich. N.W., Grand Rapids 4
Falbisaner, G. J...3000 Monroe Ave. N.E., Grand Rapids
Farber, Charles E...50 College Ave. S.E., Grand Rapids 3
Faust, Lawrence W.....26 Sheldon Ave. S.E., Grand Rapids 2
Feenstra, Laurence H. (A).....1470 Burke Ave. N.E., Grand Rapids 5
Feldhaus, Henry, Jr.....1110 Lindell Blvd., Shelbyville, Tenn.
Fellows, Kenneth E.....3341 Ashton Rd. S.E., Grand Rapids 6
Ferguson, James A...2230 Hall St. S.E., Grand Rapids 6

Ferguson, Lynn A.....72 Sheldon Ave. S.E., Grand Rapids 2
Ferrand, Louis G.....119 N. Monroe St., Rockford
Fitts, Ralph L.....50 College Ave. S.E., Grand Rapids 3
Fitzgerald, Erwin L.....50 College Ave. S.E., Grand Rapids 3
Flintoff, William M.....1545 Diamond Ave. N.E., Grand Rapids
Flynn, J. Donald..26 Sheldon Ave. S.E., Grand Rapids 2
Fochtman, Thomas W.....72 E. Division, Sparta
Foshee, J. Clinton.....124 Fulton St. E., Grand Rapids 2
Foxworthy, John P.....50 College Ave. S.E., Grand Rapids 3
Frantz, Charles H...1810 Wealthy St. S.E., Grand Rapids
Fuller, Edson H., Jr.....74 Ionia Ave. N.W., Grand Rapids 2
Fuller, William J.....2633 Frederick Dr. S.E., East Grand Rapids
Funcke, Wm. E. (A).....245 College Ave., N.E., Grand Rapids

Gamm, Kenneth E.....1516 Wealthy St. S.E., Grand Rapids 6
Gentles, Ernest W.....Seward Sanitarium, Bartlett, Alas.
Gibbs, Floyd F.....4327 Division Ave. S., Grand Rapids 8
Gilbert, Ralph H.....26 Sheldon Ave. S.E., Grand Rapids
Gillett, Frederick S.....50 College Ave. S.E., Grand Rapids
Good, C. Robert.....2749 Clyde Park Ave. S.W., Grand Rapids
Gosling, Robert J. (M).....1047 Inwood Ave., Silver Springs
Gouwens, Willis E.....2903 Coit, N.E., Grand Rapids 5
Grant, Lucile R.....1810 Wealthy St. S.E., Grand Rapids 6
Grass, Edward J.....833 Lake Dr. S.E., Grand Rapids 6
Gray, Fred B.....26 Sheldon Ave. S.W., Grand Rapids
Graybiel, George P.....118 W. Main, Caledonia
Griffith, Lucian S.....50 College Ave. S.E., Grand Rapids 3
Grosenbaugh, Clare H. (A).....VA Hospital, Canandaigua, New York
Gunn, James A...1840 Wealthy St. S.E., Grand Rapids 6
Gunning, Robert E. Lee.....1960 Michigan, N.E., Grand Rapids 5

Haeck, William, Jr.....1414 Eastern Ave. S.E., Grand Rapids 7
Hagerman, David B.....26 Sheldon Ave. S.E., Grand Rapids 2
Hamp, Arthur K.....833 Lake Dr. S.E., Grand Rapids 6
Heaton, John R.....72 Sheldon Ave. S.E., Grand Rapids
Heetderks, Dewey R.....26 Sheldon Ave. S.E., Grand Rapids 2
Helder, Louis (A).....2838 Pittsfield Blvd., Ann Arbor
Herrick, Ruth.....26 Sheldon Ave. S.E., Grand Rapids
Hesselschwerdt, D. W.....932 Floral Dr., S.E., Grand Rapids
Hill, A. Morgan....50 College Ave. S.E., Grand Rapids 3
Hill, Thomas B.....710 N. Monroe, Lowell
Hodgkinson, C. P. (A).....1253 Lake Michigan Dr., Grand Rapids
Hoeksema, Ronald H. (M).....742 Apple St., Muskegon
Hoekstra, Andrew L.....26 Sheldon Ave. S.E., Grand Rapids 2
Hoekstra, Philip J. (A).....2257 Parkwood, Ann Arbor
Hoffs, Albertus J...26 Sheldon Ave. S.E., Grand Rapids 2
Holcomb, J. Winslow..1441 Breton Rd., Grand Rapids 6
Holkeboer, Henry D.....1925 Eastern Ave. S.E., Grand Rapids 7
Hollander, Stephen.....1451 Grandville Ave., Grand Rapids 9
Hoogerhyde, Jack.....124 E. Fulton, Grand Rapids 2
Houghton, R. C.....525 Glenwood, S.E., Grand Rapids
Howard, Leonard R. (A).....437 Prospect St., Grand Rapids
Hudson, Henry C...50 College Ave. S.E., Grand Rapids 3
Hufford, A. Ray.....260 Jefferson Ave. S.E., Grand Rapids 3
Humphrey, Herbert E. (A).....1749 Lafayette, N.E., Grand Rapids 5
Humphrey, James C.....26 Sheldon Ave. S.E., Grand Rapids 2
Hunderman, Edward D.....538 Eastern Ave. S.E., Grand Rapids 6
Hutchinson, F. A.....833 Lake Dr., S.E., Grand Rapids
Hydrick, Robert H.....1043 W. Fulton, Grand Rapids
Hyland, William A.....110 Fulton St. E., Grand Rapids 2
Ireland, Hoesa D.....700 Fuller Ave. N.E., Grand Rapids
Irwin, Jerry L. (A).....1720 Eastern Ave., S.E., Grand Rapids
Jack, William W.....1810 Wealthy St. S.E., Grand Rapids 6
Jackson, Doris L.....1644 Boston St. S.E., Grand Rapids
Jacobs, Richard L. (A).....8608 Fernald Ave., Morton Grove, Ill.
Jameson, Fred M.....833 Lake Dr. S.E., Grand Rapids 6
Jaracz, Walter J.....634 Bridge St. N.W., Grand Rapids 4
Jaracz, Walter J., Jr.....634 Bridge St. N.W., Grand Rapids 4
Jarka, Robert W.....50 College, S.E., Grand Rapids 3
Jarvis, Charles, Jr.....1520 Plainfield Ave. N.E., Grand Rapids 5
Jellema, John F.....2060 Voorheis, N.W., Grand Rapids 4
Jensen, William B., Jr.....3147 Bonnell Ave. S.E., Grand Rapids
Johns, Donald C.....655 Broadview St. S.E., Grand Rapids 7
Johnston, Dan W...100 Michigan St. N.E., Grand Rapids
Johnston, William L.....110 Fulton St. S.E., Grand Rapids 2
Jones, Haven E.....833 Lake Dr. S.E., Grand Rapids
Jones, Horace C.....1840 Wealthy St. S.E., Grand Rapids 6
Jui, John O. L.....4161 Lake Michigan Dr. N.W., Grand Rapids

Kammeraad, L. A. (A).....U. S. Army Hosp., Carlisle Barracks, Carlisle, Penna.
Kempers, Roger D. (A).....815 15th Ave. N.E., Rochester, Minn.
Kempter, Albert H.....1200 Lake Dr. S.E., Grand Rapids 6
Kessler, Dale L.....1610 Robinson Rd. S.E., Grand Rapids 6
Kenney, Leo J.....26 Sheldon Ave. S.E., Grand Rapids
Kinkella, Albert M. (A).....904 W. Adams, Chicago, Ill.
Klein, Jacob E. (M).....R.R. 2, Box 30, Bangor
Klomparens, James T. (M).....130 B. Cecil Nas, Jacksonville, Fla.
Klooster, Gerald....2740 Eastern Ave. S.E., Grand Rapids
Kniskern, Paul W.....26 Sheldon Ave. S.E., Grand Rapids 2
Kooistra, Henry P.....1564 Pontiac Rd., Grand Rapids 6
Kool, Bernard P.....445 Cherry St. S.E., Grand Rapids 3
Kreulen, Henry J.....2452 Godwin, S.E., Grand Rapids 7
Krhovsky, Frank J. (A).....130 Rexford Dr. S.E., Grand Rapids
Kruse, William T., Jr.....2225 Wilshire Dr. S.E., Grand Rapids 6
Kuiper, K. Van Zanten.....967 Eastern Ave. S.E., Grand Rapids 7

Laird, Robert G.....26 Sheldon Ave. S.E., Grand Rapids
Lamberts, Austin E.....1520 Leffingwell, N.E., Grand Rapids 5
Landstra, Robert F.....50 College Ave. S.E., Grand Rapids 3
Lang, Ramon B.....1520 Plainfield Ave. N.E., Grand Rapids 5
Lanning, Nicholas E.....1204 Madison Ave. S.E., Grand Rapids 7
Larsen, Ferris I. (A).....Calibina, Okla.
Leep, Joseph H.....26 Sheldon Ave. S.E., Grand Rapids
Lentini, Joseph R.....110 Fulton St. S.E., Grand Rapids 2
Lewis, George H.....30 Manchester Rd. S.W., Grand Rapids 8
Lieffers, Harry....26 Sheldon Ave. S.E., Grand Rapids 2
Lillie, Walter I.....50 College Ave. S.E., Grand Rapids 3

List, Carl F.....401 Lakeside Dr., Grand Rapids 6
Logie, James W.....833 Lake Dr. S.E., Grand Rapids 6
Lukens, Jack G.....26 Sheldon Ave. S.E., Grand Rapids
MacDonell, James A.....50 College Ave. S.E., Grand Rapids 3
MacIntyre, Dugald S.....833 Lake Dr. S.E., Grand Rapids 6
Mancewicz, Jerome F.....1154 Leonard St. N.W., Grand Rapids
Mann, Joseph D.....300 Bostwick Ave. N.E., Grand Rapids 3
Marsh, John P.....124 Fulton St. S.E., Grand Rapids 2
Marshall, Robert B. (A).....Mercy Hosp., Pittsburgh, Penna.
Martin, Alexander M...110 Fulton St. E., Grand Rapids 2
Martinus, Martin.....525 Overbrook Lane, S.E., Grand Rapids
Mason, W. B.....50 College Ave., S.E., Grand Rapids
Maycroft, T. C. (M).....31 Medical Detachment, APO 800, c/o P.M., New York, N. Y.
Maynard, Mason S...445 Cherry St. S.E., Grand Rapids 3
McCormick, John K.....122 Caledonia, N.E., Grand Rapids 5
McDougal, William J.....127 Fountain St. N.E., Grand Rapids 3
McKay, Orval I.....311 E. Main St., Lowell
McKinlay, Leland M.....124 Fulton St. E., Grand Rapids 2
McMahon, F. Gilbert (A).....No Address
Meade, Richard H., Jr.....750 San Jose Dr., Grand Rapids 6
Meeuwsen, Bernard..26 Sheldon Ave. S.E., Grand Rapids
Mehney, Gayle H.....26 Sheldon Ave. S.E., Grand Rapids
Meshros, M. P. (A).....100 Michigan, N.E., Grand Rapids
Miller, John J.....1580 Water St., Marne
Miller, J. D.....50 College Ave. S.E., Grand Rapids 3
Mills, George R.....535 Greenwood, S.E., Grand Rapids
Mitchell, Waldemar B.....26 Sheldon Ave. S.E., Grand Rapids
Moberg, Carl H...26 Sheldon Ave. S.E., Grand Rapids 2
Moen, Cornetta G.....53 Lafayette, S.E., Grand Rapids
Moleski, Joseph V...26 Sheldon Ave. S.E., Grand Rapids
Moleski, Leo T.....26 Sheldon Ave. S.E., Grand Rapids
Moleski, Stanley L.....26 Sheldon Ave. S.E., Grand Rapids 2
Moll, Arthur M.....74 Ionia Ave. N.W., Grand Rapids 2
Mollmann, Arthur H.....110 E. Fulton St., Grand Rapids
Montgomery, John C.....1810 Wealthy St. S.E., Grand Rapids 6
Moore, Douglas P...110 Fulton St. S.E., Grand Rapids 2
Morey, Edward C. (L)..557 Fulton, E., Grand Rapids 3
Mouw, Dirk R...2352 Jefferson Dr. S.E., Grand Rapids 7
Mulder, G. Arthur.....26 Sheldon Ave. S.E. Grand Rapids 2
Mulder, Jacob D. (L).....6850 S. Division Ave., Grand Rapids 8
Muldoon, James P.....72 Sheldon Ave. S.E., Grand Rapids
Murray, Raymond H., Jr.....26 Sheldon Ave. S.E., Grand Rapids

Nanzig, Reinard P.....1514 Wealthy St. S.E., Grand Rapids 6
Newton, John P. (A)..222 Prospect, S.E., Grand Rapids
Nickel, Kenneth C.....833 Lake Dr. S.E., Grand Rapids
Northouse, Peter B.....26 Sheldon Ave. S.E., Grand Rapids 2
Notier, Victor A...50 College Ave. S.E., Grand Rapids 3
Oates, Samuel M.....110 Fulton St. E., Grand Rapids 2
O'Brien, James D...1448 Garfield, N.W., Grand Rapids 4
Oliver, W. W.....26 Sheldon Ave. S.E., Grand Rapids
Overbeek, Ernest L.....26 Sheldon Ave. S.E., Grand Rapids

Paalman, Russell J.....26 Sheldon Ave. S.E., Grand Rapids 2
Palaszek, Theresa R.....833 Lake Dr. S.E., Grand Rapids
Papritz, Jack W. (A)....954½ Cherry St., Grand Rapids
Pattullo, Marshall.....1810 Wealthy St, S.E., Grand Rapids
Payne, C. Allen..1289 Perkins Rd. N.E., Grand Rapids 5
Pearson, Glenn A.....519 Greenwood, Grand Rapids 6
Pedden, John R.....445 Cherry St. S.E., Grand Rapids 3
Pierce, F. H. (M).....404 Patrick Ave., Mineral Wells, Tex.
Piggott, Leonard R. (M)....19177 Grandville, Detroit 19
Pilling, Warren C.....936 Orchard, S.E., Grand Rapids 6
Plekker, Johannes D.....833 Lake Dr. S.E., Grand Rapids 6
Porter, Howard P.....833 Lake Dr., S.E., Grand Rapids
Posthuma, Albert E.....26 Sheldon Ave. S.E., Grand Rapids 2
Postma, Edward Y.....68 Ransom, N. E., Grand Rapids 3
Postma, Howard F. (A).....4031 Chicago Dr., S.W., Grandville
Pott, Abraham L.....1011 Fulton St. E., Grand Rapids 3
Prothro, Winston B.....303 Ionia Ave. N.W., Grand Rapids
Puite, Robert H.....26 Sheldon Ave. S.E., Grand Rapids 2

Raiman, Robert J.....50 College Ave. S.E., Grand Rapids
Ralph, L. Paul..953 Rosewood Dr. S.E., Grand Rapids 6
Rasmussen, Richard A.....Blodgett Med. Bldg., Grand Rapids 6
Reardon, D. F.....829 Myrtle St. N.W., Grand Rapids 4
Reus, William F.....24 Burton St. S.E., Grand Rapids 7
Riekse, James M.....1916 Division S., Grand Rapids 7
Rigterink, John W. (L).....50 College Ave. S.E., Grand Rapids 3
Ringenberg, J. C.....50 College Ave. S.E., Grand Rapids 3
Robb, Charles S.....445 Cherry St. S.E., Grand Rapids 3
Robbert, John H.....3947 Omaha, Grandville
Robinson, Harold C.....26 Sheldon Ave. S.E., Grand Rapids 2
Rodgers, William L.....616 Bridge, N.W., Grand Rapids
Rooks, Wendell H.....1158 Nixon Ave. N.W., Grand Rapids 4
Roosenberg, William.....3000 Monroe Ave. N.E., Grand Rapids
Rosenzweig, Leonard..833 Lake Dr. S.E., Grand Rapids 6
Roth, Emil M.....604 Loraine Bldg., Grand Rapids 2
Ruggy, George H.....3926 River Rd. N.W., Comstock Park
Ryan, John A.....26 Sheldon Ave. S.E., Grand Rapids 2
Ryskamp, James J., Jr. (A).....21 H Ridge Rd., Greenbelt, Md.

Sanders, Jack F.....2740 Eastern Ave., Grand Rapids
Santinga, John T. (A).....545 Lincoln, N.W., Grand Rapids
Schaubel, Howard J...124 Fulton St. E., Grand Rapids 2
Schlosser, Ralph J...26 Sheldon Ave. S.E., Grand Rapids
Schneider, George R.....1810 Wealthy St., S.E., Grand Rapids 6
Schek, Donald C. (A)..519 Second St., Trenton 10, N. J.
Schermerhorn, L. J. (R).....2317 Vine Hill Rd., Santa Cruz, Calif.
Schnoor, Elmer W.....844 Iroquois Dr. S.E., Grand Rapids 6
Schnute, Louise F.....146 Monroe, N.W., Grand Rapids 2
Schumacher, Earle E., Jr.....833 Lake Dr. S.E., Grand Rapids 6
Scott, William B.....114 Michigan, N.W., Grand Rapids 2
Sculley, Raymond E.....126 Burton, S.E., Grand Rapids
Seidel, Karl E.....16 36th St. S.W., Grand Rapids 8
Seime, Reuben I.....250 Cherry St. S.E., Grand Rapids 3
Sevensma, Elisha S. (L)..1077 E. Leonard, Grand Rapids
Sevensma, Eugene S...1077 Leonard, N.E., Grand Rapids
Sharda, Martin.....740 Alger St. S.E., Grand Rapids
Shellman, Millard W.....50 College Ave. S.E., Grand Rapids 3
Sidell, Richard H.....312 E. Fulton St., Grand Rapids 6
Siebers, Bernard H.....1085 Leonard, N.E., Grand Rapids
Sikkema, Donald E. (A).....6674 Clyde Park, S.W., Grand Rapids

Skendzel, L. P. (A).....925 Flat St. N.E., Grand Rapids
Sluyter, John S.....839 Iroquois Dr. S.E., Grand Rapids 6
Smith, Ansel B.....110 Fulton St. E., Grand Rapids 2
Smith, Dean B.....50 College Ave. S.E., Grand Rapids
Smith, Robert B.....26 Sheldon Ave., S.E., Grand Rapids
Smith, R. Earle.....74 Ionia Ave. N.W., Grand Rapids 2
Snider, John D.....2130 Godwin Ave. S.E., Grand Rapids
Snyder, Clarence H.....500 Cherry St. S.E., Grand Rapids 3
Southwick, C. H.....55 Sheldon Ave. S.E., Grand Rapids
Southwick, G. Howard.....55 Sheldon Ave. S.E., Grand Rapids 2
Spencer, H. H.....26 Sheldon, S.E., Grand Rapids
Stankey, Robert M. (M).....310 Pine, Essexville
Start, A. H. (A).....715 Coate, S.W., Grand Rapids
Steffensen, W. H.....1810 Wealthy St. S.E., Grand Rapids
Stonehouse, Garnet G.....408 Medical Arts Bldg., Grand Rapids 2
Stoneman, Fernley.....11 S. Wilson St., Grandville
Stover, Virgil E.....860 Gladstone, S.E., Grand Rapids 6
Stuart, Gerhardus J. (L).....110 Fulton St. E., Grand Rapids 2
Sugg, Cullen E.....303 Fulton St. E., Grand Rapids 3
Sugiyama, Tetsuo....110 Fulton St., E., Grand Rapids 2
Sun, Keh Ming....St. Mary's Hosp. Lab., Grand Rapids 3
Swanson, Alfred B.....1810 Wealthy St. S.E., Grand Rapids 6
Swenson, Harold C.....124 Fulton St. E., Grand Rapids 2

Telego, A. J.....1016 San Juan, S.E., Grand Rapids
Ten Have, John.....3515 Briggs Blvd. N.E., Grand Rapids 2
Ter Kevrst, D. H. (A).....1403 Eastern, S.E., Grand Rapids
Tesseine, Arthur J...1328 Madison, S.E., Grand Rapids 7
Teusink, James H.....Cedar Springs
Thompson, Athol B.....1810 Wealthy St. S.E., Grand Rapids 6
Thompson, Edward C.....26 Sheldon Ave. S.E., Grand Rapids 2
Thompson, Frank D.....333 Gladstone S.E., Grand Rapids 6
Tidey, Marcus B...456 Cherry St. S.E., Grand Rapids 3
Tiffany, Jos. C.....2322 Jefferson Dr.. S.E., Grand Rapids 7
Torgerson, Wm. R...833 Lake Dr. S.E., Grand Rapids 6
Torgerson, Wm. R., Jr.....2639 Hall St. S.E., Grand Rapids 6
Troske, Robt. L. (M).....1553 S. Persing Dr., San Francisco, Calif.
Truog, Clarence P.....110 Fulton St. E., Grand Rapids 2

Unkefer, Lemoyne I.....3926 West River Drive, Comstock Park
Uthoff, Carl W.....68 Ransom N.E., Grand Rapids 3

Valdmanis, Ferdinand.....2120 Lake Drive S.E., Grand Rapids
Van Bree, Raymond S.....1521 Ridgewood S.E., Grand Rapids 6
Vanden Berg, A. R.....26 Sheldon Ave. S.E., Grand Rapids 2
Vanden Berg, Henry J. (L).....2933 Bonnell Rd. S.E., Grand Rapids
Vanden Berg, Wm. O.....50 College Ave. S.E., Grand Rapids 3
Vander Kolk, K. J. (A).....Route 2, Zeeland
Vander Meer, Raymond.....26 Sheldon Ave. S.E., Grand Rapids 2
Vandermolen, John..1805 Diamond N.E., Grand Rapids
Vander Ploeg, Wm. H...980 Hall S.E., Grand Rapids 7
Van Der Veer, Corwin G.....68 Ransom Ave. NE., Grand Rapids 3
Van Dommelen, G. M. (A).....1541 Philadelphia S.E., Grand Rapids
Van Duine, Henry J.....414 Brookside Dr. S.E., Grand Rapids 7
Van Dyke, Harold E.....1108 Leonard St. N.E., Grand Rapids
Van Goor, Kornelius.....26 Sheldon Ave. S.E. Grand Rapids 2
Van Noord, Gelmer A.....6850 Division Ave. S., Grand Rapids 8
Van Portfliet, Paul.....26 Sheldon Ave. S.E., Grand Rapids 2
Van Solkema, Andrew A.....953 E. Fulton St., Grand Rapids
Van Solkema, Arthur.....64 State St., Grandville
Van'T Hof, Albert.....50 College Ave. S.E., Grand Rapids 3
Van Woerkom, Danl.....750 Leonard St. N.W., Grand Rapids 4
Van Zwalenburg, B. R.....2054 Anderson Dr. S.E., Grand Rapids 6
Vecchio, Thomas J.....P.O. Box 1410, Williamson, W. Va.
Veldman, Harold E.....26 Sheldon Ave., Grand Rapids 2
Venema, Jay R.....540 Overbrook Lane S.E., Grand Rapids 7
Ver Lee, Jimmie J. (A).....254 James, S.E., Grand Rapids
Ver Muelen, John (L)....2400 Wyoming, Grand Rapids
Ver Meulen, Peter (A).....105 Baynton N.E., Grand Rapids
Verwys, Hubert A. L.....815 Alger St. S.E., Grand Rapids 7
Vining, Keats K., Jr.....833 Lake Dr. S.E., Grand Rapids 6
Vis, William R. (L).....26 Sheldon Ave. S.E. Grand Rapids 2
Visser, Earl R. (M).....No Address
Voss, John A.....2060 Alpine Ave. N.W., Grand Rapids 4
Vroon, John (A)..100 Michigan St. N.E., Grand Rapids
Vyn, Jay D.....1415 Plainfield N.E., Grand Rapids 5

Wadlund, Robert R.....100 Michigan St. N.E., Grand Rapids
Wahby, Elmer F.....300 Bostwick Ave. N.E., Grand Rapids
Wassink, R. N. (A)....28 Michigan, N.E., Grand Rapids
Waterman, Donald F.....535 Greenwood S.E., Grand Rapids 6
Webb, Clarence F.....833 Lake Dr. S.E., Grand Rapids 6
Webber, Jerome E.....50 College Ave. S.E., Grand Rapids 3
Weller, Keith E.....1200 Lake Drive S.E., Grand Rapids 6
Wells, S. Merrill, Jr.....50 College Ave., S.E. Grand Rapids 3
Wenger, Aaron V. (L).....132 Grand Ave. N.E., Grand Rapids
Wenger, John N.....Cooperville
Westerhoff, Robert J.....1036 Franklin S.E., Grand Rapids
Whalen, John M. (M).....No Address
Whinery, Jos. F.....50 College Ave. S.E., Grand Rapids 3
Whitehouse, John D.....1201 Colorado Ave. S.E., Grand Rapids 6
Wiarda, Roy J., Jr.....1539 Plainfield N.E., Grand Rapids 5
Wiese, John L.....50 College Ave. S.E., Grand Rapids 3
Wilderom, Morris....303 Ionia Ave. S.W., Grand Rapids
Wilkes, John B.....1328 Madison Ave. S.E., Grand Rapids 7
Wilkinson, C. A. (M)....USA Hospital, Fort Rucker, Ala.
Williams, John R.....833 Lake Dr. S.E., Grand Rapids 6
Wilson, John R. (A).....100 Michigan St., N.E., Grand Rapids
Wilson, Wm. E. (R).....37 Prospect Ave. N.E., Grand Rapids
Winfield, Emery D.....457 Burton S.E., Grand Rapids
Winter, Garrett E.....1967 Godfrey Ave., S.W., Grand Rapids 9
Whittenberger, R. N.....833 Lake Drive S.E., Grand Rapids

Wright, Thos. B.....2614 Plainfield Ave. N.E., Grand Rapids 8
Wurz, John F.....201 Norwood Ave. S.E., Grand Rapids 6
Wyngaarden, Martin K.....146 Monroe Ave. N.W., Grand Rapids
Yared, Jerome A...651 Cherry St. S.E., Grand Rapids 6
Zwemer, Rodger J.....1810 Wealthy St. S.E., Grand Rapids

LAPEER COUNTY

Bishop, G. Clare.....Almont
Boruch, Leon R.....Drawer A, Lapeer St. Hme., Lapeer
Buchanan, Thos. K.....290 S. Almont Ave., Imlay City
Burley, David H. (L).....Almont
Chapin, Clarence D. (L).....Columbiaville
Conaway, Chas E.....746 Monroe St., Lapeer
Dorland, Clarke.....221 Lincoln St., Lapeer
Doty, James R.....315 Clay St., Lapeer
Greavu, Cornell, Jr.....North Branch
Heitsch, Wm. C.....307 Clay St., Lapeer
House, Clifford.....1026 N. Madison, Lapeer
Kiehler, E. G. II.....1444 W. Genesee St., Lapeer
Kocur, Lubomira.....Drawer A, Lapeer
Lebedovych, Emil.....Lapeer State Home, Lapeer
Lebedovych, Ksenia.....Lapeer State Home, Lapeer
Leith, Dorothy L.....240 Main St., Imlay City
McBride, John R.....431 Washington St., Lapeer
O'Brien, D. J.....100 Cedar St., Lapeer
Rehn, Adolph T.....Lapeer State Home, Lapeer
Smith, Ellen.....Lapeer State Home, Lapeer
Smith, Glenn L.....230 E. Third St., Imlay City
Thomas, J. Orville (L).....North Branch
Utley, Marvin.....Lapeer State Home, Lapeer
Zemmer, Harry B.....311 Clay St., Lapeer
Zolliker, Carl R.....Lapeer State Home, Lapeer

LENAWEE COUNTY

Abraham, A. O.....Hudson
Balice, F. W.....128 E. Butler, Adrian
Benz, Carl A.....308 N. Broad St., Adrian
Berghuis, John.....National Bank Bldg., Adrian
Blanchard, Lowell E.....Hudson
Blanden, Merwin R.....Tecumseh
Claxton, Wilbert T.....Britton
Coak, Richard D.....Ford Bldg., Tecumseh
Conlin, Gadstone.....National Bank Bldg., Adrian
Cook, Carlton L.....W. Chicago Rd., Tecumseh
Dorsey, John M., Jr.....Professional Bldg., Adrian
Dustin, Richard E.....103 W. Brown St., Tecumseh
Eddy, Howard R. C.....Mill Rd., Adrian
Fitzsimmons, Francis J.....128 E. Butler St., Adrian
Hamilton, John D.....Mill Rd., Adrian
Hammel, Richard T.....Tecumseh
Harrison, Robt. E.....418 W. Adrian, Blissfield
Heffron, Chas. H.....231 N. Main St., Adrian
Heffron, C. Harold.....231 N. Main St., Adrian
Heffron, Howard H.....231 N. Main St., Adrian
Helzerman, Ralph F.....112 S. Ottawa St., Tecumseh
Hewes, Wm. H.....Mill Rd., Adrian
Hinshaw, Warren V.....139 N. Main St., Adrian
Hood, Clifford (M).....767 W. Maumee, Adrian
Hornsby, W. B. (L).....Clinton
Hunter, Thos. B.....113 E. Maumee St., Adrian
Isley, Homer E.....115 W. Adrian St., Blissfield
Loveland, Horace H.....515 S. 2d Ave., Escanaba
Marsh, Roland G. B.....610 W. Logan St., Tecumseh
Miller, P. Lynford.....310 E. Maumee St., Adrian
O'Connor, Archie R.....122 Locust St. Clinton
Parker, Donald A.....4396 Evergreen Dr., Adrian
Patmos, Bernard.....127 E. Maumee St., Adrian
Phelan, Alvin J.....102 S. Pearl St., Tecumseh
Raabe, Elmer C.....Morenci
Rawson, A. P. (N).....No Address
Richey, Bert R.....765 Manitou Rd., Manitou Beach
Rogers, John D.....146 Toledo St., Adrian
Sarapo, Donato F.....115 E. Mich. Ave., Adrian
Sayre, Philip P. (L).....Onsted
Skufis, E. M.....123 E. Chestnut, Adrian
Skufis, Xenophon.....123 E. Chestnut, Adrian
Stark, Emily S.....573 Front St., Adrian
Stewart, Landis C.....108 National Bank Bldg., Adrian
Thompson, John R., Jr.....529 Dennis St., Adrian
Tubbs, Ray V.....120 E. Adrian, Blissfield
Van Dusen, Chad A. (L).....RFD 5, Blissfield
Whitehouse, Keith H.....Morenci
Wilson, Geo. C.....Box 224, Clinton
Wisely, John.....113 W. Front St., Adrian
Wolf, Marvin B.....143 Park St., Adrian
Wynn, Geo. H.....1115 W. Maumee, Adrian

LIVINGSTON COUNTY

Barton, Thos. A.....116 N. Michigan, Howell
Clarke, Niles A.....624 Spencer Rd., Brighton
Duffy, Ray M.....Box 106, Pinckney
Fidler, Wm. F.....Michigan State Sanit., Howell
Glenn, Bernard H. (A).....226 E. Grand River, Fowlerville
Green, Walter E.....12851 E. Gr. River Ave., Brighton
Harebottle, Norman Fowlerville
Hauer, R. Fred.....Fowlerville
Hendren, Jesse J.....Fowlerville
Hill, Harold C.....116 N. Michigan Ave., Howell
Hoffman, Stanley.....State Sanitarium, Howell
May, Louis E.....924 W. Grand River, Howell
McGregor, Archie J.....Brighton
Mitchell, Abbott B.....3505 Mason Rd., Howell
Nicholas, Mildred V.....Mich. State San..Howell
Perry, Florence J. C.....17640 San Rose Ave., Lathrup Village
Polack, Robt. T.....221 Fowler, Howell
Rogers, Robert P.....Brighton
Schenden, A. J.....6335 W. M 36, Pinckney
Sigler, Hollis L.....110 N. Michigan Ave., Howell
Walker, Enos G.....4485 Cordley Lake, Lakeland
Woodworth, Edwin S.....422 E. Lake, Howell

LUCE COUNTY

Adams, De Witt C.....Newberry State Hosp., Newberry
Banach, Alexius.....Newberry State Hosp., Newberry
Campbell, Earl H. (L).....Newberry
Gibson, Robt. E. L., Jr.....207 W. John St., Newberry
Grennan, Lawrence E.....210 W. John St., Newberry
Hicks, R. P.....228 Newberry Ave., Newberry
Purmort, Wm. R., Jr.....Newberry State Hosp., Newberry
Surrell, Matthew A.....210 W. John St., Newberry
Swanson, George F.....VA Hosp. Univ. & Wdlnd. Philadelphia, Penn.
Thompson, Thos. W.....Newberry State Hosp., Newberry

MACOMB COUNTY

Adler, Morton W.....19188 Appoline St., Detroit 35
Ambrose, Robt. H.....22401 E. 11 Mile Rd., St. Clair Shores
Audretsch, F. E.....36275 Alfred, New Baltimore
Barker, John G.....8050 Warren Blvd., Center Line
Beecher, Alvin J.....21501 Kelly, East Detroit
Bower, Allen B.....Armada
Brady, Milo J...22233 Eleven Mile Rd., St. Clair Shores
Bryce, James W.....25219 Van Dyke Ave., Center Line
Buckley, Danl. J.....160 S. Walnut St., Mt. Clemens
Charbeneau, Harold P.....67 Cass Ave., Mt.Clemens
Cherup, Nicholas.....22728 Ryan Rd., Warren
Corbett, John....407 Monitor Leader Bldg., Mt. Clemens
Croman, Jos. M., Jr.....115 Cass Ave., Mt. Clemens
Curatolo, Victor.....67 Cass Ave., Mt. Clemens
Curlett, James E. (L).....26765 Gratiot, Roseville
Deal, Harold R.....80 S. Edgewood, Detroit 36
Disney, Charles T.....P.O. Box 56, N. End St., Detroit 5
Dudzinski, Edmund J.....424 Washington St., New Baltimore
Ekelman, Seymour B.....130 Cass Ave., Mt. Clemens
Ellias, Elmer P.....18005 Fairfield Ave., Detroit 21
Engels, John A.....211 Main, Richmond
Goldman, Bernard J.....243 S. Gratiot Ave., Mt.Clemens
Hartmann, Waldemar B...1416 S. Gratiot, Mt. Clemens
Heine, Austin W.....99 S. Gratiot Ave., Mt. Clemens
Isbey, Edward K.....856 Westchester Rd., Grosse Pointe 30
Jacobs, Manuel.....23700 Van Dyke Ave., Warren
Jankoska, R. L.....22119 13 Mile Rd., St. Clair Shores
Jewell, James H.....Roseville Theatre Bldg., Roseville
Juliar, Jos. F.....136 Cass Ave., Mt. Clemens
Kane, John P.....67 Cass Ave., Mt. Clemens
Kane, Peter V.....67 Cass Ave., Mt. Clemens
Kane, Wm. J.....69 Cass Ave., Mt. Clemens
Kirker, J. G.....68259 Main St., Richmond
Klein, Alfred A.....23700 Van Dyke, Warren
Lapp, Charles.....45157 Van Dyke, Utica
Lee, Frank (M)....16 A Eagan Ave., Langley AFB VA
Lerman, S. E.....23700 Van Dyke, Warren
Maguire, Andrew J.....45569 Van Dyke, Utica
Marks, Morris H.....24157 Van Dyke, Centerline
Martin, Wm. L.....117 S. Main St., Romeo
Mattes, Max W.....18456 Wildemere, Detroit 21
Matthews, C., Jr.....407 Monitor Leader Bldg., Mt. Clemens
Maxim, Edward S.....253 South Gratiot, Mt. Clemens
McMorrow, Kathryn.....16861 Wyoming, Detroit 21
Miller, Sidney S.....22048 Gratiot, East Detroit
Moore, Geo. F.....67 Cass Ave., Mt. Clemens
Mulligan, Philip T.....91 Cass Ave., Mt. Clemens
Pollina, Clement J...17070 E. Twelve Mile Rd., Roseville
Reichman, Jos. J.....67 Cass Ave., Mt. Clemens
Reitzel, Rufus H.....199 S. Gratiot Ave., Mt. Clemens
Reizen, Maurice S.....10564 Ludlow, Huntington Woods
Revere, Joe. O.....192 S. Gratiot Ave., Mt. Clemens
Rinkenberger, E. A.....243 S. Gratiot Ave., Mt. Clemens
Rivard, Chas. L.....20825 Mack Ave., G P W, Detroit 36
Rivkin, Jos.....44 S. Gratiot Ave., Mt. Clemens
Rizzo, Albert.....21503 Harper Ave., St. Clair Shores
Romanski, Raymond.....St. Joseph Hosp., Mt. Clemens
Roth, Geo. E.....19136 Mendota Ave., Detroit 21
Rothman, Arthur M.....22422 Gratiot Ave., East Detroit
Rourke, Ronald E.....21503 Harper Ave., St. Clair Shores
Rousseau, Daniel L.....20 Parkview Ave., Mt. Clemens
Ruedisueli, C. A.....19 Breitmeyer Pl., Mt. Clemens
Rush, Wm. E.....25815 Harper, St. Clair Shores
Ryan, Jack.....2214 Beverly Blvd., Berkley
Salot, Russell F.....67 Cass Ave., Mt. Clemens
Scher, Jos. N.....130 Cass Ave., Mt. Clemens
Scher, Sydney.....132 Cass Ave., Mt. Clemens
Siegfried, Edward G.....91 Cass Ave., Mt. Clemens
Sims, Wm. N.....Monitor Leader Bldg., Mt. Clemens
Singer, Nelson.....22100 Gratiot Ave., East Detroit
Smith, Milton C.....60 S. Gratiot Ave., Mt. Clemens
Steinberger, Eugene.....23700 Van Dyke Warren
Stepka, Joseph E.....45157 Van Dyke, Utica
Stone, Elizabeth A.....Romeo
Strempek, Walter F.....209 W. St. Clair, Romeo
Stryker, Oscar D...31032 Jefferson Ave., St. Clair Shores
Sturm, Fredk. A...29405 Jefferson Ave., St. Clair Shores
Suksta, Adolph W.....18215 Utica Rd., Roseville
Suzuki, M.....23700 Van Dyke, Warren
Thompson, Alfred A.....126 Cass Ave., Mt. Clemens
Tinkey, L. Leo.....18807 E. Ten Mile Rd., Roseville
Trinkaus, Wm. F.....22033 Kelly Rd., East Detroit
Ullrich, Russell W.....91 Cass Ave., Mt. Clemens
Weiss, Jack I.....23700 Van Dyke Ave., Warren
White, Donal L.....23219 Marter Rd., St. Clair Shores
Whitley, Alec....30233 Jefferson Ave., St. Clair Shores
Wiley, D. Bruce.....45310 Van Dyke Ave., Utica
Wyte, Wm. C.....170 Eastman St., Mt. Clemens
Yamasaki, Ken.....23700 Van Dyke, Warren
Zavela, Dan.....22644 Gratiot Ave., East Detroit

MANISTEE COUNTY

Garneau, Robt. R.....308 E. Court St., Ludington
Hansen, Ernest C.....78 Maple St., Manistee
Konopa, John F.....57 Poplar St., Manistee
Lalime, Ruth E.....Bear Lake
Lewis, Lee A. (L).....Manistee
Loughrin, John J.....90 Maple St., Manistee
Miller, Ernest B.....427 River St., Manistee
Oakes, Ellery A.....401 River St., Manistee
Ramsdell, Homer A.....398 River St., Manistee
Rosenow, K. G.....503 7th St., Manistee
Schwarz, Marlowe L.....Onekama
Schwing, Donald N.....326 First St., Manistee

MARQUETTE-ALGER COUNTIES

Acocks, James R.....Morgan Hgts. Sanat., Marquette
Amolsch, Arthur L.....St. Luke's Hosp., Marquette
Baron, Benzion C.....Munising
Bennett, Arthur K. (L).....Box 436, Mt. Dora, Fla.
Bennett, Matthew C.....Medical Bldg., Marquette
Berry, Robt. F.....Medical Bldg., Marquette
Bertucci, Jos. P.....114 S. First St., Ishpeming
Bolan, Beatrice.....City Hall, Marquette
Bolitho, Thos. B.....Medical Bldg., Marquette
Casler, Wilbur L.....131 E. Ridge St., Marquette
Conley, Donal T.....1st Natl. Bank Bldg., Marquette
Cookinham, Frank.....112 E. Michigan, Marquette
Cooperstock, Moses.....Medical Bldg., Marquette
Corcoran, Wm. A.....112 Cleveland Ave., Ishpeming
D'Adesky, R. G.....Nestor Block, Marquette
Drury, Chas. P.....414 E. Hewitt Ave., Marquette
Elzinga, Eugene R.....415 E. Hewitt, Marquette
Erickson, Douglas W.....Ishpeming Hosp., Ishpeming
Fennig, Foster A.....315 N. Front St., Marquette
Green, Southgate J.....405 N. First St. Ishpeming
Harkin, John C.....Nestor Block, Marquette
Hettle, Paul J.....101 S. Front St., Marquette

Hirwas, Chas. L.....111 S. Front St., Marquette
Hornbogen, Danl. P.....101 S. Front St., Marquette
Howe, Lloyd W.....101 S. Front St., Marquette
Jaedecke, Robt. G.....829 Croix, Negaunee
Kane, Elizabeth D.....418 W. Magnetic, Marquette
Knutson, Geo. O.....829 Croix St., Negaunee
Koenig, Harry.....Nester Block, Marquette
Kronschnabel, E. F. (A)....4556 N. 41st St., Milwaukee
Lambert, Warren C.....Medical Bldg., Marquette
Le Golvan, Paul C. (M).....6825 16th St., Washington 25, D. C.
Lindquist, Leo A.....Medical Bldg., Marquette
Lyons, James W.....Medical Bldg., Marquette
Matthews, Norman L...N. Mich. Child Clinic, Marquette
Moore, Bert E.....524 Mather St., Ishpeming
Mudge, Wm. A.....108 Ridge St., Negaunee
Narotzky, Archie S.....Miracle Circle, Ishpeming
Paine, Raymond L.....Teal Lake Rd., Negaunee
Rosenbaum, Louis.....540 E. Division, Ishpeming
Sabin, Fredk. C.....101 S. Front St., Marquette
Schultz, Marvin H.....114 N. Front St., Marquette
Schweinsberg, Sara K. D. (A)....c/o Stress Crate Corp., Malvern, Pa.
Sherwood, Clifford No Address
Stein, Paul G.....Rt. 1, Harvey, Marquette
Swinton, Andrew L. (L)....101 S. Front St., Marquette
Tearnan, Raymond A.....Munising
Van Riper, Paul (L).....Champion
Wickstrom, Geo. B.....223 Lynn St., Munising
Williams, Reginald G.....524 Mather St., Ishpeming
Wright, Kenneth C.....Medical Bldg., Marquette

MASON COUNTY

Bacon, Herbert G., Jr.....101 N. Main, Scottville
Boldyreff, Ephraim B.....Mich. Vets Fac., Custer
Boon, A. Floyd.....102 W. Ludington Ave., Ludington
Carney, John R.....202 N. Park St., Ludington
Carney, Ruth V. C.....202 N. Park Ave., Ludington
Clark, Harry L. (L)....510 N. Lakeshore Dr., Ludington
Craymer, Austin.....420 N. Park, Ludington
Hoffman, Howard B...604 E. Ludington Ave., Ludington
Kleinschmidt, Gladys J.....105 N. Delia, Ludington
Martin, Wm. S.....107 Ludington, Ludington
Morris, Roger S.....405 E. Court St., Ludington
Morrow, Wm. J.....119 N. James St., Ludington
Ostrander, Robt. A.....121 E. Ludington, Ludington
Paukstis, Chas. A.....111 E. Court St., Ludington
Slaybaugh, James C.....709 E. Ludington, Ludington
Sutter, Wm. F.....220 S. James St., Ludington

MECOSTA COUNTY

Bruggema, Jacob.....Main St., Evart
Chess, Leo F.....Reed City
Franklin, Benj. L. (L).....Remus
Haldeman, Jack.....126 Maple, Big Rapids
Hickox, Leland A.....430 Morris St. S. E., Grand Rapids
Ivkovich, Paul.....Reed City
Kilmer, David N. (A).....Warren State Hosp., North Warren, Pa.
Kilmer, Paul B.....Reed City
Kowaleski, Edward H.....Remus
Merlo, Frank A.....206 S. Michigan St., Big Rapids
Nelson, Lorenzo R.....R. D. 1, Baldwin
Peck, Louis K. (L).....Barryton
Rood, Robt. C.....282 N. Cass St., Morley
Treynor, Thos. P.....126 E. Maple Ave., Big Rapids
Tyson, James L.....324 Mecosta St., Big Rapids
Van Auken, Edward W.....126 Maple, Big Rapids
Walters, James E.....126 Maple, Big Rapids
White, John A.....121 S. Michigan St., Big Rapids

MENOMINEE COUNTY

Agneberg, Nils O.....531 1st St., Menominee
Anderson, N. O. (A).....Albert Schweitzer Hosp., Deschappelles, Haiti
Brukardt, Herman R.....534 First St., Menominee
Clay, Joel W.....1031 First St., Menominee
Dewane, Francis J.....413 10th Ave., Menominee
Flanagan, Clarence B.....623 First St., Menominee
Glickman, L. Grant.....958 First St., Menominee
Gonty, Arthur.....1110 Tenth Ave., Menominee
Heidenreich, John R.....Daggett
Hopson, George H.....100 Tenth St., Menominee
Hopson, Patricia C.....1207 First St., Menominee
Jones, Wm. S.....P. O. Box 76, Menominee
Jones, Wm. S., Jr.....1146 10th Ave., Menominee
Kerwell, Karm C.....P. O. Box 17, Stephenson
Olson, Robt. C.....1713 22nd Ave., Menominee
Towey, John W.....Pinecrest Sanat., Powers

MIDLAND COUNTY

Ashcom, Richard.....110 W. Sugnet, Midland
Athay, R. M. (R).....4622 Concord Court, Midland
Ballmer, Robt. S.....2715 Ashman St., Midland
Bernier, Jos. A.....Box 26, Sanford
Blackhurst, J. F.....2715 Ashman St., Midland
Blackhurst, Robt. T.....Blackhurst Bldg., Midland
Bowsher, Robt. E.....2719 Ashman St., Midland
Bridge, Robt. G.....2715 Ashman, Midland
Bulmer, Dan J.....116 Harold St., Midland
Buskirk, Maurice D.....110 W. Sugnet, Midland
Devlin, James A.....224 E. Larkin, Midland
Ellis, Ruth.....124 Towsend St., Midland
Fields, Dozier N., Jr.....Midland
Gay, Harold H.....Dow Chemical Co., Midland
Gordon, Harold L.....Dow Chemical Co., Midland
Grant, Robert.....116 Harold St., Midland
Grewe, Norman C.....347 E. Main St. Midland
Gronemeyer, Wm. H.....1009 St. Andrew's Dr., Midland
Haberstroh, Collen E. B.....907 Eastman Rd., Midland
Heffernan, D. D.....123 E. Main St., Midland
Holder, Benj. B.....Dow Chem. Co. Med. Dept., Midland
Howe, Irvin M.....110 W. Sugnet, Midland
Howell, Richard H.....2710 Maple St., Midland
Ittner, Martin J.....217 N. Saginaw Rd., Midland
Kaasa, Laurin J.....4005 Orchard Dr., Midland
Linsenmann, Karl W.....2604 Manor Dr., Midland
Marks, V. A.....119 Gordon St., Midland
Maynard, Wm. A.....Coleman
Meisel, Edward H., Jr.....148 E. Maint St., Midland
Moench, G. Fredk.....401 W. Main St., Midland
O'Hora, Bernard A.....110 W. Sugnet Rd., Midland
Pike, Melvin H.....325 E. Main St., Midland
Pollock, Robert.....Masonic Bldg., Midland
Poznak, Leonard A.....4005 Orchard Dr., Midland
Randolph, Stephen H.....410 Jerome St., Midland

Schoff, Charles A.....2912 Ashman St., Midland
Shriner, John W.....1524 Airfield Lane, Midland
Stewart, Richard.....Dow Medical Dept., Midland
Towsley, Wilbur D.....515 W. Main St., Midland
Ulmer, George.....Midland Hosp., Midland
Voikos, Geo. A.....3004 E. Ashman St., Midland
Willison, Chas. H.....122 Townsend St., Midland

MONROE COUNTY

Ames, Florence D.....2 W. Noble Ave., Monroe
Barrett, C. D., Sr.....106 E. First St., Monroe
Blakey, Leonard C.....222 N. Monroe St., Monroe
Bond, Wm. W.....4 E. Front St., Monroe
Burroughs, J. J.....222 N. Monroe St., Monroe
Cigany, Zoltan B.....Carleton
Clark, Bruce.....Erie
Diehl, Joy O. Stephenson..15463 S. Monroe St., Monroe
Douglas, Dale W.....17 E. First St., Monroe
Dranginis, E. J.....Monroe Hosp., Monroe
Ewing, Robt. T.....201 N. Macomb St., Monroe
Flanders, John P.....31 Washington St., Monroe
Frary, Reginald A.....423 E. Elm Ave., Monroe
Freud, John W.....222 N. Monroe St., Monroe
Hensel, Hilda M.....12 E. 4th St. Monroe
Hnatczuk, Nicholas.....Petersburg
Hunter, Marion A.....35 E. Front St., Monroe
Johnson, A. Esther.....31 Washington St., Monroe
Kelso, Saml. N., Jr.....127 E. Front St., Monroe
Laboe, Edward W.....424 Hollywood, Monroe
Lammers, Gerald P.....Ida
Loan, G. B.....429 N. Monroe St., Monroe
Long, Edgar C.....1310 N. Macomb St., Monroe
McDonald, Thos. A.....17 E. Elm St., Monroe
McGeoch, Reginald W.....718 N. Macomb St., Monroe
McMillin, John H.....423 E. Elm St., Monroe
Meier, Walter A.....306 S. Macomb St., Monroe
Middleton, W. S.....219 W. Front St., Monroe
Parmelee, Olin E. (L).....Lambertville
Pinkus, Hermann K. B.....12 E. 4th St., Monroe
Reisig, Albert H.....1 S. Monroe St., Monroe
Sanger, Emerson J. J.....530 S. Monroe St., Monroe
Sisman, Bernard.....325 N. Monroe St., Monroe
Streicher, Robt. G.....729 N. Monroe St., Monroe
Tomlinson, Ledyard H.....8702 Main, Newport
Wagar, Spencer H.....711 Hollywood Dr. Monroe
Weeks, Vernon L.....326 N. Monroe, Monroe
Wilkins, Rolland W.....105 E. Front St., Monroe
Williams, Robt. J.....306 Godfroy Ave., Monroe
Williamson, Geo. W.....284 Tecumseh St., Dundee

MUSKEGON COUNTY

Allen, Richard T.....1891 Lake Shore Dr., Muskegon
Anderson, Alfred J.....1371 Peck St., Muskegon
Anderson, Axel W.....Lakewood Club, Twin Lake
Askam, Ralph F.....1714 Leahy St., Muskegon
Atkinson, Annie L.....1019 Green Creek Rd., North Muskegon
August, Ralph V.....72 E. Broadway, Muskegon Heights
Barnard, Helen S.....896 Jefferson St., Muskegon
Barnes, James W.....102 Professional Bldg., Montague
Benedict, Arthur L., Jr.....22 W. Southern Ave., Muskegon
Bloom, Robt. E.....305 Liberty Life Bldg., Muskegon
Bolthouse, Robt. E.....2416 Peck St., Muskegon Hts.
Bond, Wm. H.....1724 Peck St., Muskegon
Boyd, De Vere R.....1735 Peck St., Muskegon
Bradshaw, Park S.....1014 Jefferson St., Muskegon
Busard, J. Max.....888 1st St., Muskegon
Chapin, Wm. S. (A).....2136 Sanford, Muskegon Hts.
Christophersen, J. W.....1276 Lake Shore Dr., Muskegon
Clapp, Henry W.....88 Strong Ave., Muskegon
Closz, Harold F.....283 W. Western Ave., Muskegon
Cohan, Sol G.....1114 Second St., Muskegon
Cooper, Wm. C.....2332 Leahy, Muskegon Hgts.
Cronick, Anne B.....1067 Pine St., Muskegon
Dasler, Adolph F.....1507 Peck St., Muskegon
De Leeuw, Henry.....4090 Higate Rd., Muskegon
Diskin, Frank.....309 Jackson Ave., Muskegon
Dykhuizen, H. D.....289 W. Western Ave., Muskegon
Ellis, Nicholas J.....1891 Lake Shore Dr., Muskegon
Engstrom, A. D.....126 W. Colby, Whitehall
Fillingham, Enid.....870 N. Second St., Muskegon
Fleischmann, Chas. B.....250 W. Webster Ave., Muskegon
Fleishman, Norman A.....1094 Jefferson St., Muskegon
Fles, Robt. J.....1715 Peck St., Muskegon
Folsom, John D.....1706 Peck St., Muskegon
Fugate, E. M.....412 Hackley Union Bldg., Muskegon
Gaikema, Everett W.....Muskegon Co. Sanat., Muskegon
Garber, Frank W.....235 Monroe St., Muskegon
Giese, Douglas H.....298 W. Western Ave., Muskegon
Goltz, Martha H. (L).....Montague
Greene, Henry P.....764 Pine St., Muskegon
Griffith, Robt. M.....68 E. Broadway, Muskegon Hgts.
Hack, Donald W.....3875 Lake Harbor Rd., Muskegon
Hanley, Wm. J.....283 W. Western Ave., Muskegon
Harryman, James E.....1129 Peck St., Muskegon
Hartwell, Shattuck W.....1665 Jefferson St., Muskegon
Harvey, John G. Klemm.....1521 Jefferson St., Muskegon
Heneveld, Edward H.....1603 Peck St., Muskegon
Heneveld, John (R)..4036 Sanford Rd., Muskegon Hgts.
Heneveld, Robt. G. (A).....1458 Montaque Glenside, Muskegon
Hennessy, Mary E. (A).....1890 Winchester Dr., Muskegon
Hill, James K.....1095 3rd St., Muskegon
Holly, Leland E.....876 N. Second St., Muskegon
Hopkins, James G.....1508 Clinton St., Muskegon
Hornbeck, Wm. J.....425 W. Western Ave., Muskegon
Hulett, Ralph M.....3990 Loomis Dr., Muskegon
Jesson, Robt. M.....1129 Peck St., Muskegon
Johnston, E. H.....878 Second St., Muskegon
Joistad, Arthur H., Jr.....878 N. Second St., Muskegon
Kane, Thos. J.....179 Strong Ave., Muskegon
Kay, Cecelia S.....1533 Peck St., Muskegon
Keilin, Marie (L).....504 Liberty Life Bldg., Muskegon
Kerr, Howard J.....1441 Lake Shore Dr., Muskegon
Kleaveland, Ingram J.....1633 Peck St., Muskegon
Lange, Eugene W.....337 N. Muskegon Blvd., Muskegon
Lapham, Landon M.....Whitehall
Lauretti, Emil J.....289 W. Western Ave., Muskegon
Laurin, Vilda S. (L)....289 W. Western Ave., Muskegon
Le Fevre, Geo. L., Jr.....500 Lake Dr., North Muskegon
Le Fevre, Wm. L.....289 W. Western Ave., Muskegon
Loder, Leonel L.....289 W. Muskegon Ave., Muskegon
Lowry, Robt. A.....2336 Peck St., Muskegon Hgts.
Maire, Lewis E.....886 First St., Muskegon
Mandeville, C. B.....289 W. Western Ave., Muskegon
Maples, Douglas E.....402 Center St., North Muskegon
McDiarmid, D.....1129 Peck St., Muskegon
McNair, John N.....967 Second St., Muskegon
Medema, Paul E.....1017 Sanford St., Muskegon
Meengs, Marvin B.....1725 Pack St., Muskegon
Miller, Phillip L.....1755 Peck St., Muskegon
Mulder, Lambertus.....1085 Apple St., Muskegon
Mulligan, Allan W. (R)....1260 Jefferson St., Muskegon
Oden, C. L. A.....287 W. Western Ave., Muskegon
Paterson, Lester C.....1095 3rd St., Muskegon
Pettinga, Frank L.....1603 Peck St., Muskegon
Powers, Lunette I. (L).....Box C 35, Traverse City
Prentice, Edwin W.....2325 Westwood Dr., Muskegon
Price, Leonard.....1282 Arthur St., Muskegon

Risk, Robt. D.....1160 Ransom St., Muskegon
Scholle, Norbert W.....2500 Peck St., Muskegon Hgts.
Sears, Richard.....36 W. Muskegon Ave, Muskegon
Shebesta, Emil M.....2342 Westwood Rd., Muskegon
Stubbart, F. James.....2416 Peck St., Muskegon Hgts.
Swedenburg, Robt. D.....886 First St., Muskegon
Swenson, Leland L.....1706 Peck St., Muskegon
Tellman, H. Clay.....289 W. Western Ave., Muskegon
Thieme, Siegfried W. (L)....12213 Stafford St., Ravenna
Thornton, Eugene S. (L).....289 W. Western Ave., Muskegon
Toy, Chas. M.....1067 Pine St., Muskegon
Tyler, Wm. H.....1572 Jefferson, Muskegon
Vandervelde, C. A.....283 W. Western Ave., Muskegon
Vangelder, Wm. C.....626 Cambridge Dr., Muskegon
Wagenaar, Edward H.....912 Mona Brook Rd., Muskegon
White, Warren G., Jr.....1624 Peck St., Muskegon
Wiersma, Silas C.....289 W. Western Ave., Muskegon
Wildgen, Bernard C.....289 W. Western Ave., Muskegon
Wilke, Carl A.....Box 345, Montague
Williams, Edward V. (A).....2404 A. Jarman St., Muskegon Hgts.
Yegge, J. P.....2212 Peck St., Muskegon Hgts.

NEWAYGO COUNTY

Carter, L. J. Cook.....Grant
Crowe, F. C.....White Cloud
Deur, Theodore R.....Grant
De Young, Jesse.....Fremont
Emerick, Robt. W.....Gerber Memorial Hosp., Fremont
Geerlings, Lambert J.....20 N. Division St., Fremont
Klein, J. Paul.....P. O. Box 111, Fremont
Masters, Brooker L.....111 W. Dayton, Fremont
Moore, Hugh R.....Newaygo
O'Neill, John W.....Dist. Health Dept., White Cloud
Painter, Robert Grant
Paxton, Robt. E.....40 W. Sheridan, Fremont
Pedelty, Norman Newaygo
Vanden Berg, Tunis.....20 N. Division Ave., Fremont
Veenschoten, Girard.....Hesperia
Webb, Roy O.....219 Woodrow, Fremont

NORTH CENTRAL COUNTIES

Backe, John C.....6401 N. Fifth Ave., St. Petersburg, Fla.
Barstow, Richard G.....Gaylord
Boehm, John D. (R).....West Branch
Clippert, C. G.....308 Michigan Ave., Grayling
Coulter, Keith D.....120 N. Bowery Ave., Gladwin
Crandell, Clare H. (R).....West Branch
Dosch, Paul.....Grayling
Egle, Jos. L.....Northern Mich. TB Sanit., Gaylord
Foertsch, Fred E.....Grayling
Forney, Fred A. (L).....Northern Mich. TB Sanit., Gaylord
Hasty, Earl A.....West Branch
Hayes, Louis F.....Gaylord
Henig, Benj. E.....Grayling
Howarth, Thos. W.....Gladwin
Jardine, Hugh M.....West Branch
Libke, Robert S.....Gaylord
Martzowka, Martin A.....Roscommon
McKillop, Gordon L.....126 E. Main, Gaylord
Oppy, Charles L.....Roscommon
Palm, George W.....Pruddenville
Peckham, Richard C.....Gaylord
Schaiberger, Geo. L.....West Branch
Stallings, Lelan E.....Beaverton
Stealy, Stanley A.....No Address
Timreck, Harold A.....Gladwin
Van Oosten, Howard E.....117 Burgess, West Branch
Waltz, Paul.....West Branch
Wiegerink, L. T.....West Branch

NORTHERN MICHIGAN COUNTIES

Allen, Robt. F.....Little Traverse Hosp., Petoskey
Alm, Bernhard T.....418 Petoskey St., Petoskey
Blum, Benj. B.....560 W. Mitchell St., Petoskey
Burns, Dean C.....560 W. Mitchell St., Petoskey
Cameron, Wm. J. (M).....2507 George, Arlington Hgts., Ill.
Conkle, Guy C. (L).....Masonic Bldg., Boyne City
Conklin, Frederic L. (A).....Lockwood Gen. Hosp., Petoskey
Conti, Jos. B.....924 E. Mitchell St., Petoskey
Conway, Wm. S.....560 W. Mitchell St., Petoskey
Cooke, Robt. F.....960 W. Mitchell St., Petoskey
Crippen, Edward F.....157 Michigan St., Mancelona
Drake, Gerald.....Petoskey
Duffie, Don H. (L).....Central Lake
Elliott, Dean C.....Burns Clinic, Petoskey
Frye, S. A.....Harbor Springs
Grate, Lawrence E.....Charlevoix
Hegener, Aloysius J.....1029 Jefferson Ave., Petoskey
Hodges, Roy W. (L).....Mackinaw City
Kirk, Thomas R.....Burns Clinic, Petoskey
Kroeker, Edwin.....Petoskey
Larson, Walter E.....456 S. Huron, Cheboygan
Lawrie, Guy K.....1005 E. Mitchell St., Petoskey
Lentini, Nicholas.....Cheboygan
Lester, Verne.....Petoskey
Litzenburger, A. F.....Boyne City
Martin, Robt. G.....103 Clinton, Charlevoix
Mateskon, Victor S.....718 Michigan St., Petoskey
Mayne, Frederick C.....P.O. Box 387, Cheboygan
McKnight, Robt. D.....627 Michigan St., Petoskey
Mertz, Joanne E.....560 W. Mitchell St., Petoskey
Pearson, Robt. E.....Boyne City
Rauch, Carl T.....542 S. Huron St., Cheboygan
Reus, Leonard W.....226 Park Ave., Petoskey
Rodger, John R.....Bellaire
Saltonstall, G. B.....112 Clinton St., Charlevoix
Savory, John H.....East Jordan
Stringham, James R. (L).....225 Backus St., Cheboygan
Taylor, Robt. M.....960 W. Mitchell St., Petoskey
Van Dellen, Jerrian.....Water St., East Jordan
Webster, Jean H.....Petoskey
Weburg, Kathryn D.....560 W. Mitchell St., Petoskey

OAKLAND COUNTY

Abbott, Vernon C.....1405 Pontiac St. Bank, Pontiac
Adair, Robin.....602 N. Woodward Ave., Birmingham
Adams, Fredk. M...600 N. Woodward Ave., Birmingham
Albert, Donald G.....1401 S. Washington, Royal Oak
Albrecht, Robt. W.....549 Grixdale, Pontiac
Arena, Joseph A., Jr.....22928 Woodward Ave., Ferndale
Arnkoff, Harry.....218 Riker Bldg., Pontiac
Ashare, Raymond.....336 Riker Bldg., Pontiac
Aulie, Hal G.....420 Washington Sq. Bldg., Royal Oak
Awes, Lorraine E.....1411 Pontiac St. Bk. Bldg., Pontiac

Baker, Frederick A. (R).....4575 Motorway Dr., Pontiac
Bannow, Robt. J.....880 Woodward Ave., Pontiac
Barker, Chas. P.....214 Wabeek Bldg., Birmingham
Barker, Howard B.....880 Woodward Ave., Pontiac
Barnes, Donald J.....1126 S. Woodward, Royal Oak
Barrett, John L.....264 Washington, Royal Oak
Bauer, Bruce D.....22643 Stephenson Hwy., Hazel Park
Bauer, Edward G.....101½ N. Saginaw, Pontiac
Bauer, Ernest W.....22643 Stephenson Hwy., Hazel Park
Bauer, Ernest W., Jr.....22643 Stephenson Hwy., Hazel Park
Beattie, Willard G.....125 W. Nine Mile Rd., Ferndale 20
Beck, Otto O.....308 Wabeek Bldg., Birmingham
Becker, Anne M. W.....Pontiac State Hosp., Pontiac
Belknap, Warren F.....1809 S. Main St., Pleasant Ridge
Berger, Chas. J.....1413 S. Washington Ave., Royal Oak
Blackwell, Leonard H.....722 Riker Bldg., Pontiac
Blakeney, James R.....17 Utica St., Pontiac 11
Blue, Jane.....900 Woodward Ave., Pontiac
Boileau, T. I.....2075 E. 14 Mile Road, Birmingham
Bookmyer, Robert M.....390 E. Maple, Birmingham
Boucher, Roman E...306 S. Washington Ave., Royal Oak
Bowers, Chas. L.....199 Barrington Rd., Pontiac
Brown, Arnold L.....538 Riker Bldg., Pontiac
Bryant, F. W.....201 Washington Sq. Bldg., Royal Oak
Budd, Alexander S. Z.....440 Lake Park Rd., Birmingham
Buehrig, Robert.....5790 M 15, Clarkston
Bullard, R. W., Jr.....Clarkston
Burger, John H.....1775 E. 14 Mile Rd., Birmingham
Burgess, Chas. M.....23235 Woodward Ave., Ferndale 20
Burke, Chauncey G.....35 W. Huron St., Pontiac
Butler, Saml. A. (L).....Pontiac State Hosp., Pontiac
Byberg, Robt. A.....420 Washington Sq. Bldg., Royal Oak

Calhoun, Ethel T...30405 Grand River Ave., Farmington
Calkins, Edwin A.....37 W. Flint St., Lake Orion
Campbell, K. N.....22932 Woodward Ave., Ferndale
Campbell, Malcolm D.....306 S. Washington Ave., Royal Oak
Carrow, Joyce M.....35 W. Huron St., Pontiac
Cefai, Anthony F.....310 Pontiac St. Bank, Pontiac
Chandler, Douglas.....1890 Southfield Rd., Birmingham
Chandler, Jos. H.....1401 S. Washington, Royal Oak
Cheng, James T.....7350 Cooley Lake Rd., Pontiac
Childers, Merle A.....180 Oneida, Pontiac
Christensen, Willis L.....109 W. Eleven Mile Rd., Royal Oak
Christie, Edward A.....738 Riker Bldg., Pontiac
Clarke, Harriet A.....32 Murphy, Pontiac
Cline, Alan L.....576 Pontiac St. Bank, Pontiac
Cobb, Leon F.....75 W. Huron St., Pontiac 14
Cobb, Thos. H.....880 Woodward Ave., Pontiac
Collins, Edward F., Jr.....35 W. Huron St., Pontiac
Condon, Frank J.....2401 E. Fourth, Royal Oak
Conner, Edward D.....3856 S. Miller Way, Birmingham
Conrad, Cecil D.....3027 N. Woodward Ave., Royal Oak
Cooley, Roy V.....189 Orchard Lake Ave., Pontiac
Cooper, Robt. J.....35 W. Huron St., Pontiac 15
Coucke, Henry O.....1148 S. Woodward Ave., Royal Oak
Crissman, Howell C...22748 Woodward Ave., Ferndale 20
Crum, Roger E.....440 Riker Bldg., Pontiac
Cudney, Ethan B.....159 Marlborough, Pontiac
Cutler, Wm. M.....16966 Kirkshire, Birmingham

Dahlgren, Carl W.....3023 Orchard Lake Ave., Keego Harbor
Darling, C. G., Jr.....880 Woodward Ave., Pontiac
Deighton, Murray N. (M).....16240 Lochgrbig, Birmingham
De Jongh, Edwin.....Pontiac Motor Div. GMC, Pontiac
Delaney, Malcolm J.....32316 Grand River, Farmington
De Lawter, Hilbert H.....277 Pierce St., Birmingham
Deutsch, Wm. L.....600 W. 11 Mile Rd., Royal Oak
Dobski, Edwin J.....880 Woodward Ave., Pontiac
Donnelly, Wm. J.....246 S. Telegraph Road, Pontiac
Drew, Dale R.....880 Woodward, Pontiac
Dunlap, Gregg L.....2144 Avondale Dr., Pontiac 19
Dunn, Lewis E.....3924 Twelve Mile Rd., Berkley
Durak, Gerald G.....1809 S. Main St., Royal Oak
Durocher, Normand E.....28 N. Saginaw St., Pontiac
Dustin, Robt. W.....498 Merritt Lane, Birmingham
Eddy, Corinne S.....Pontiac State Hosp., Pontiac
Ekelund, Clifford T.....35 W. Huron St., Pontiac
Elder, Edward E., Jr.....1116 Voorheis, Pontiac
Endress, Zachary F., Jr.....28 N. Saginaw St., Pontiac
Engel, John B.....235 Linden Rd., Birmingham
Esslinger, John O...622 N. Woodward Ave., Birmingham
Evseeff, Geo. S.....2685 Amberley Rd., Birmingham

Farnham, Lucius A. (L).....538 Riker Bldg., Pontiac
Fellner, Wm. A.....900 Baldwin Ave., Pontiac
Ferris, Ralph G.....55 W. Maple Ave., Birmingham
Filkin, Lawrence E.....90 E. Avon Road, Rochester
Fink, L. Jerome.....28 N. Saginaw St., Pontiac 11
Fitzpatrick, F. J.....92 Spokane Dr., Pontiac
Flick, John R.....120 W. Second St., Royal Oak
Fox, Ralph M.....Ridgewood Rd., Bloomfield Hills
Furlong, Harold A.....35 W. Huron St., Pontiac

Gaba, Howard B.....17300 Woodingham, Detroit 21
Gaber, Ben.....10851 W. Ten Mile Rd., Oak Park 37
Gadbaw, Jos. J.....Box 436, Farmington
Gaensbauer, F.....127 Illinois St., Pontiac
Galpin, Richard R.....525 Southfield Rd., Birmingham
Garber, Max J.....23606 Farmington, Farmington
Gariepy, Bernard F.....120 W. 1st St., Royal Oak
Gates, Edward M.....35 W. Huron St., Pontiac
Gatley, Cleo R.....97 N. Perry St., Pontiac
Gatley, Leslie W.....97 N. Perry St., Pontiac 14
Gehringer, Norman F.....880 Woodward, Pontiac
Geib, Ormond D.....341 N. Main St., Rochester
Geist, Edgar J., Jr.....413 Woodward St., Rochester
Gell, James W.....35 W. Huron St., Pontiac
Gerls, Frank B.....28 N. Saginaw St., Pontiac 15
Gibson, James C. (L).....206 E. Commerce St., Milford
Gibson, Wellington C.....216 E. Commerce, Milford
Gill, Matthew J.....3115 Franklin Rd., Bloomfield Hills
Glen, Harold.....2845 Woodward Ave., Berkley
Glikman, Victor.....Pontiac State Hosp., Pontiac
Goerner, Dorothy M.....1500 Henrietta, Birmingham
Goldstein, Herbert....22100 Coolidge Hwy., Oak Park 37
Goode, Norman J., Jr.....1117 S. Washington Ave., Royal Oak
Gordon, Clayton H.....1099 Cranbrook Rd., Birmingham
Gradolph, Paul L.....23338 Woodward Ave., Ferndale 20
Grant, Wm. A. (L).....Milford
Green, J. Donald.....217 Briggs Bldg., Birmingham
Green, Ralph S.....24100 Stratford, Oak Park 37
Green, Willard M.....28 N. Saginaw, Pontiac
Gregoire, Earl.....Pontiac General Hosp., Pontiac
Grekin, Thos. D.....603 W. Eleven Mile Rd., Royal Oak
Gustafson, Everette.....35 W. Huron St., Pontiac
Gutterman, Meyer A.....25085 Coolidge Hwy., Oak Park

Haanes, Merle A.....28 N. Saginaw St., Pontiac
Hackett, Danl. J.....782 Owego Dr., Pontiac
Hagman, George L. (L).....3615 Hunter, Royal Oak
Halsted, Lee H.....33311 Grand River Ave., Farmington
Hammonds, Everett E.....Barden Rd., Bloomfield Hills
Han, Maolin.....3358 Auburn Rd., Auburn Heights
Hardy, Geo. C. (L).....240 Oak Lane Dr., Rochester
Hassberger, John B.....620 N. Woodward Ave., Birmingham
Hathaway, Wm. S.....433 Main, Rochester
Henderson, J. E.....4 Barbour Terrace, Bloomfield Hills
Henderson, Worth W.....1307 S. Washington, Royal Oak
Hendren, Owen S.....28 N. Saginaw St., Pontiac 14
Henry, Colonel R...125 W. Nine Mile Ferndale, Ferndale
Hensley, Chas. B.....248 S. Broadway, Lake Orion
Hershey, Lynn N.....1100 N. Woodward, Birmingham
Hoekman, Aben.....1740 Hamilton Dr., Rte. 3, Pontiac
Howlett, Edward V. (L).....538 Riker Bldg., Pontiac
Hoyt, Donald F.....28 N. Saginaw St., Pontiac 14
Hubert, John R.....880 Woodward Ave., Pontiac 14
Hull, Robt. P.....23625 Woodward, Ferndale
Hunter, Donald G.....440 Riker Bldg., Pontiac

Ignatius, Aram A.....1915 E. Nine Mile Rd., Ferndale 20
Jacknow, Albert..1215 Pontiac State Bank Bldg., Pontiac
Jacobi, Rodman C.....37 N. Washington, Oxford
James, Robert E., Jr.....246 S. Telegraph, Pontiac
Kay, Sherman A.....1401 S. Washington, Royal Oak

Kazdan, Louis L.....13801 W. 9 Mile Rd., Oak Park
Keeffe, Eugene J.....900 Woodward Ave., Pontiac
Kemp, Felix J.....880 Woodward Ave., Pontiac
Kemp, W. Lloyd.....525 Southfield Rd., Birmingham
Kendrick, H. F., Jr.....35 W. Huron St., Pontiac
Ketchum, Jesse.....4219 Manor Rd., Royal Oak
Klewicki, H. A.....22720 Woodward, Ferndale 20
Koehler, Wm. H.....4416 Far Hill Dr., Birmingham
Kozlow, Clifford S.....4274 N. Woodward, Royal Oak
Kozlow, Louise E. A.....4274 N. Woodward, Royal Oak
Kozonis, Michael C.....28 N. Saginaw St., Pontiac
Kripke, Morton J.....2635 Coolidge, Berkley
Kuhn, Anne K.....4274 N. Woodward, Royal Oak
Kuhn, Henry H.....817 E. Eight Mile Rd., Hazel Park
Kuhn, Robt. E.....4274 N. Woodward, Royal Oak
Kurnetz, Ruben.....10851 W. Ten Mile Rd., Oak Park

La Core, Ivan A.....Pontiac State Hosp., Pontiac
Ladd, James E.....1100 Hunter St., Birmingham
Lahti, Paul T.....264 Washington Sq. Bldg., Royal Oak
LaMarche, N. O.....2827 Woodward, Berkley
Lambert, Alvin G.....3027 Woodward, Royal Oak
Lambie, John S. (L).....280 Aspen Rd., Birmingham
Landry, Roy A.....5807 Dixie Hwy., Waterford
Larson, Alvin R.....880 Woodward Ave., Pontiac
Laux, Philip J., Jr.....3027 N. Woodward, Royal Oak
Leahy, Etta Link.....600 Eleven Mile Rd., Berkley
Levine, Bernard.....25101 Coolidge St., Oak Park 37
Lewis, Sol M.....541 W. Oakridge, Ferndale
Lichtwardt, Harry.....606 N. Woodward Ave., Birmingham
Ling, T. W.....Box 436, Farmington
Linn, Herman J.....3601 W. 13 Mile Rd., Royal Oak
Lockwood, Clement E. (L).....Holly
Longyear, Harold W.....3019 N. Woodward, Royal Oak
Lowery, A. J.....1538 Union Lake Road, Pontiac
Lutes, Byron B.....195 W. Nine Mile Road, Ferndale
Lyons, Robt. T.....200 Oneida, Pontiac

Manz, Howard N.....23607 Farmington Rd., Farmington
Margrave, Edmund D.....306 W. Ten Mile Rd., Royal Oak
Margulis, Ralph R.....1100 N. Hunter Blvd., Birmingham
Mark, Hansi.....21934 Stephenson Hwy., Hazel Park
Markley, John M.....655 Ridge Road, Bloomfield Hills
Marra, John J.....461 W. Huron St., Pontiac
Martin, Francis A.....880 Woodward, Pontiac
Mason, Robt. J.....618 N. Woodward Ave., Birmingham
Mathes, Chas. J.....Mich. Dept. of Health, Lansing
McCain, French H.....628 N. Woodward Ave., Birmingham
McCandliss, D. H.....1080 W. Huron St., Pontiac
McConkie, James P.....2425 W. Lincoln, Birmingham
McEvoy, F. J.....1715 Crooks Road, Royal Oak
McHugh, James M.....c/o Pontiac St. Hosp., Pontiac
McInerney, Thos. S.....2026 Lavrome, Royal Oak
McIntyre, Kenneth E.....779 Grand Marais, Grosse Pointe Park
McLaughlin, J. H.....Reid Bldg., Birmingham
McNeill, Howard H.....83 S. Saginaw St., Pontiac 14
McPhee, Edward C.....880 Woodward, Pontiac
McWhirter, W. W.....952 Washington Rd., Grosse Pointe
Mehas, Constantine P.....300 Hickory Grove, Bloomfield Hills
Meinke, Herman A.....817 E. Eight Mile Rd., Hazel Park
Meisner, Harry E.....12910 Oak Park Blvd., Oak Park 37
Mercer, Frank A.....28 N. Saginaw St., Pontiac
Merrill, Lionel N.....306 S. Washington Ave., Royal Oak
Milgrom, Sidney.....1229 S. Washington St., Royal Oak
Miller, Arthur C.....17988 Buckingham, Birmingham
Miller, Hazen I.....306 S. Washington Ave., Royal Oak
Miller, Sidney.....604 N. Woodward, Birmingham
Mimura, James T.....1401 Washington, Royal Oak
Mitchell, Bert M. (R)..Inverness Sylvan Village, Pontiac
Moloney, J. C.....240 Daines, Birmingham
Monroe, John D.....1070 N. Tele, Pontiac
Montgomery, J. C.....25622 Coolidge Hwy., Huntington Woods
Morton, James A.....900 Woodward Ave., Pontiac
Mueller, Elmer J.....1775 E. Fourteen Mile, Birmingham
Mumby, Clinton J.....28 N. Saginaw, Pontiac
Munson, Harry L.....Pontiac Trail, Walled Lake
Nalepa, Eugene J.....880 Woodward Ave., Pontiac
Naz, John F.....Clarkston
Neafie, Charles A. (L).....Pontiac City Health, Pontiac
Nessel, Jack H.....35 W. Huron St., Pontiac
Newcomb, Arnold B.....19834 Riverside Dr., Birmingham
Newlander, W. O...485 N. Evansdale Drive, Birmingham
Newman, Roy.....413 Woodward Ave., Rochester
Nichamin, Samuel J.....25085 Coolidge Hwy., Oak Park
Nickerson, Ivey D.....6245 Golfview Dr., Birmingham
Nosanchuk, Jos. I.....28 N. Saginaw St., Pontiac
O'Donnell, C. H.....23338 Woodward Ave., Ferndale 20
Olsen, Richard E.....900 Woodward Ave., Pontiac
Oliphant, Wm. W.....37 W. Flint St., Lake Orion
Ormond, John K. (L).....880 Woodward, Pontiac
Ott, Harold A.....3019 N. Woodward, Royal Oak
Palmer, Hayden D.....35 W. Huron St., Pontiac
Patrick, Chas. I.....4721 Dixie Hwy., Drayton Plains
Pauli, Theodore H.....35 W. Huron St., Pontiac 14
Payton, Chas. F.....1719 Crooks Rd., Royal Oak
Pear, Erwin G.....3027 N. Woodward Ave., Royal Oak
Pearce, James F.....306 S. Washington Ave., Royal Oak
Pelletier, Chas. J.....817 E. Eight Mile Rd., Hazel Park
Petroff, Geo. N.....219 Cherokee Dr., Pontiac
Pierce, Wm. H.....600 N. Woodward, Birmingham
Porritt, Ross J.....35 W. Huron St., Pontiac 14
Porter, Kenneth F.....12751 Kingston, Huntington Woods
Ports, Preston W.....33108 Grand River Ave., Farmington
Poznanski, W. A...1100 N. Woodward Ave., Birmingham
Prather, Frank W.....347 N. Main, Milford
Prevette, Isaac C.....10 W. Huron St., Pontiac 14
Pridmore, John.....493 Tilmore Drive, Pontiac
Quarton, Albert E., Jr.....542 Pilgrim Rd., Birmingham
Quinn, James R., Jr.....2070 W. Valley Rd., Bloomfield Hills

Raynale, George P. (L)..302 Wabeek Bldg., Birmingham
Read, James A.....175 E. Hickory Grove Rd., Bloomfield Hills
Rech, Wm. R.....MacKenzie Clinic, Walled Lake
Reid, Fred T.....49 W. 14 Mile Rd., Clawson
Reye, George A.....Pontiac State Hosp., Pontiac
Riggs, Harry L.....31 Orchard Lake Ave., Pontiac
Riker, Aaron D.....35 W. Huron St., Pontiac
Roehm, Harold R.....280 W. Maple Ave., Birmingham
Rowley, Laurie G.....4400 Dixie Hwy., Drayton Plains
Rupp, Edson G., Jr.....1775 E. 14 Mile Rd., Birmingham
Rush, Alva D., Jr.....4023 Far Hill Dr., Birmingham
Russell, Vincent P.....324 Washington Sq. Bldg., Royal Oak
Rutzky, Julius.....St. Joseph Mercy Hosp., Pontiac
Ruva, Joseph J.....1280 Club Drive, Route 3, Bloomfield Hills

St. John, Harold A.....35 West Huron St., Pontiac 15
Salisbury, C. S.....21580 Greenfield, Oak Park 37
Samborski, Anne H.....32316 Grand River, Farmington
Sanford, Glenn A.....1080 W. Huron, Pontiac
Sansone, Thos. J.....413 Woodward St., Rochester
Satersmoen, Theodore.....Pontiac State Hosp., Pontiac
Schirle, Joseph L.....1116 Voorheis Road, Pontiac
Schlecte, Eve M.....120 Second Ave., Rochester
Schlecte, I. Carl.....120 Second Ave., Rochester
Schmitt, Phillip E.....239 N. Glenhurst, Birmingham
Scholes, Danl. R.....277 Pierce St., Birmingham
Schuneman, Howard A.....23760 Woodward Ave., Pleasant Ridge
Seaborn, Arthur J...1413 S. Washington Ave., Royal Oak
Segula, Robt. L.....35 W. Huron St., Pontiac 15
Selman, John H.....3306 Auburn Rd., Auburn Heights
Sempere, Chas. R.....2225 Avondale, Pontiac
Sewell, Geo. R.....6181 Indianwood Trail, Birmingham
Shadley, Maxwell L.....94 Ottawa Dr., Pontiac
Sheridan, Francis M.....1307 S. Washington St., Royal Oak
Simpson, Edward K. (L).....30 N. Saginaw St., Pontiac
Simpson, John R.....Cresson Bldg., Birmingham
Smith, Carleton A.....Guilford Rd., Bloomfield Hills
Smith, Donald S.....135 Wenonah Dr., Pontiac

Smith, Geo. E.....629 Washington Sq. Bldg., Royal Oak
Snyder, Arthur M.....23200 Woodward Ave., Ferndale 20
Somers, Donald C...2338 N. Woodward Ave., Royal Oak
Somerville, Wm. J.....145 Cambridge, Pleasant Ridge
Sosin, Allen.....23603 Farmington Rd., Farmington
Spencer, Lloyd H...1219 S. Washington Ave., Royal Oak
Spoehr, Eugene L.....22832 Woodward Ave., Ferndale 20
Spohn, Earle W.....201 S. Center St., Royal Oak
Stageman, John C.....28 N. Saginaw St., Pontiac
Stahl, Harold F.....850 Lapeer Rd., Oxford
Stanley, Wm. F.....1148 S. Woodward, Royal Oak
Starker, Clarence T. (L)....80 E. Iroquoise Rd., Pontiac
Steffes, Everette M.....3345 Coolidge Hwy., Berkley
Stein, Edward..25622 Coolidge Hwy., Huntington Woods
Steinberg, Norman N.....1223 S. Washington Ave., Royal Oak
Stolpman, A. Kenneth....640 N. Woodward, Birmingham
Stone, Sanford.....26630 W. Six Mile Road, Detroit
Stratton, Donald P.....3601 W. 13 Mile Rd., Royal Oak
Stuecheli, Milton B.....1084 Willow Lane, Birmingham
Sutton, Palmer E.....30153 Bristol Lane, Birmingham 5
Swickle, Edward F.....17 S. Main, Clawson
Tauber, Abraham.....28 N. Saginaw St., Pontiac
Touma, Alfred.....735 S. Washington, Royal Oak
Urwiller, K. L.....7610 Kipling, Detroit
Vanden Berg, Kenneth.....35 W. Huron St., Pontiac
Van Zoeren, Jay J.....Haven Sanit., Rochester
Virga, George M.....715 N. Main St., Royal Oak
Wagner, Ruth E.....201 W. 11 Mile Rd., Royal Oak
Wake, Douglas L...1307 S. Washington Ave., Royal Oak
Wangner, William F.....1401 S. Washington, Royal Oak
Ward, W. Paul.....6631 Castle Dr., Birmingham
Warner, Fredk. O.....20 Lorraine Ct., Pontiac
Watson, Thos. Y.....640 N. Woodward, Birmingham
Weaver, Arthur.....539 Riker Bldg., Pontiac
Webber, Lynn F.....7350 Cooley Lake Rd., Pontiac
Wegrzyn, George C.....St. Joseph Hospital, Pontiac
Wessels, Robt. R.....274 W. Maple St., Birmingham
Westfall, Edwin J.....Washington Sq. Bldg., Royal Oak
Westmaas, Wm. J.....364 Roanoke St., Birmingham
White, Robt. H.....379 Hamilton Ave., Birmingham
Wiant, John L.....258 Briggs Bldg., Birmingham
Wigent, Ralph D.....809 Pontiac St. Bk. Bldg., Pontiac
Williams, John P.....28 N. Saginaw, Pontiac 14
Willis, Maurice E.....28 N. Saginaw, Pontiac 14
Willis, Robt. L., Jr.....Wm. Beaumont Hosp., Royal Oak
Wilson, Albert C.....Pontiac St. Hospital, Pontiac
Ylvisaker, John R.....880 Woodward Ave., Pontiac
Young, Arthur R.....35 W. Huron St., Pontiac 15
Young Malcolm C.....1100 Withington, Ferndale
Zackheim, Herschel S...13102 Talbot, Huntington Woods
Zimmerman, Walter J.....32340 Sylan Lane, Birmingham
Zinterhofer, John..27621 Santa Barbara Dr., Birmingham
Zujko, Alphonse J.....28 N. Saginaw St., Pontiac

OCEANA COUNTY

Davis, Linford J.....315 State St., Hart
Diehl, Clarence E., Jr.....113 Sweet St., Shelby
Flint, Chas. H. (A).....1037 Arapahoe St., Thermopolis, Wyo.
Hasty, Willis A.....405 State St., Shelby
Mullen, Warren R.....Pentwater
Munger, Louis P. (L).....Hart
Reetz, Fred A. (A).....Shelby
Robinson, Wm. G.....219 State St., Hart
Vrbanac, John J.....R.R. 1, Hart
Wood, Merle G.....19 Courtland St., Hart

ONTONAGON COUNTY

Archibald, Donald H.....Box 223, Ontonagon
Bender, Jesse L. (L).....Mass
Hogue, Harold B.....Ewen State Bank Bldg., Ewen
Lahti, Carl R.....800 Zinc St., Ontonagon
Strong, Wm. F.....River St., Ontonagon
Vilardo, Ross.....White Pine

OTTAWA COUNTY

Arendshorst, Wm.....121 W. 24 St., Holland
Bazuin, Chas. H.....313 N. River Ave., Holland
Beernink, Ernest H.....408 Fulton St., Grand Haven
Bloemendaal, Dirk C.....351 N. Main St., Zeeland
Bloemendal, W. B.....224 Washington St., Grand Haven
Boersma, Vernon L.....121 W. 24 St., Holland
Bonzelaar, Alvin.....788 Columbia, Holland
Boone, Cornelius E.....22 E. Central Ave., Zeeland
Bulthuis, Jerry E.....Jamestown
Clark, Nelson H.....17 W. Tenth St., Holland
Cook, Carl S.....121 W. 24th St., Holland
De Vries, Harold G.....30 E. 9th St., Holland
De Vries, Peter J.....214 Washington St., Grand Haven
De Young, Fredk. W.....Spring Lake
Frieswyk, Melvin J.....241 E. Main St., Zeeland
Groat, Frank L.....631 Franklin St., Grand Haven
Hager, Ralph.....Hudsonville
Hamelink, Marinus H.....700 W. 26th St., Holland
Harms, Herman P.....17 W. 10th St., Holland
Heard, Wm.....504 Park St., Grand Haven
Kearney, Jos. B.....121 W. 24 St., Holland
Kemme, Gerrit J.....R. No. 3, Zeeland
Kitchel, John H.....414 Franklin St., Grand Haven
Kitchel, Mary F. S.....414 Franklin St., Grand Haven
Kools, Wm. C.....194 W. 11th St., Holland
Kuipers, Siebe W.....93 E. 29th, Holland
Long, Chas E. (L).....222 Franklin St., Grand Haven
McArthur, Peter A.....414 Franklin, Grand Haven
Moerdyk, Wm. J.....120 W. 14th St., Holland
Nykamp, Russel R.....111 E. Main St., Zeeland
Post, J. Jay.....Allendale
Rottschaefer, Wm.....17 W. 10th St., Holland
Rypkema, Willard M.....228 Washington, Grand Haven
Schaftenaar, R. H.....86 E. 28th St., Holland
Smit, George J.....Holland
Smit, Henry.....Hamilton
Stobbelaar, Robt. H.....107 S. Second, Grand Haven
Ten Have, Ralph.....1016 Sheldon Rd., Grand Haven
Ten Pas, Henry W.....293 W. 29th St., Holland
Timmerman, Eugene C.....Coopersville
Van Appledorn, C. J.....99 W. 23rd St., Holland
VanDerBerg, Edwin E.....17 W. 10th St., Holland
Van der Velde, Otto.....33 W. 8th St., Holland
VandeWaa, Alfred J.....200 E. Main St., Zeeland
Van Kolken, P. J.....509 Franklin Ave., Grand Haven
Veenstra, Bernard M.....Grand Haven
VerDuin, John W.....223 Washington St., Grand Haven
Verkaik, Peter.....Hudsonville
Wells, Kenneth N.....119 W. Savidge St., Spring Lake
Westrate, Warren K.....17 W. 10th St., Holland
Westrate, Wm., Jr.....17 W. 10th St., Holland
Westrate, Wm., Sr.....17 W. 10th St., Holland
Winter, John K.....726 State St., Holland
Winter, Wm. G., Jr.....630 State St., Holland
Yff, John H.....511 E. Central, Zeeland
Yonkman, Fredk. F.....58 Pomeroy Rd., Madison, N. J.

Ackerman, Gerald L.....124 S. Jefferson Ave., Saginaw
Albers, Millard J.....1227 N. Michigan Ave., Saginaw
Anderson, Wm. K.....404 S. Warren Ave., Saginaw
App, Robt. G.....520 W. Genesee Ave., Saginaw
Bagley, Ulysses S. (R).....1401½ N. Sixth St., Saginaw
Bass, Vernon V.....826 N. Michigan Ave., Saginaw
Berberovich, Thos. F.....2005 N. Michigan St., Saginaw
Bishop, Harry M.....515 S. Jefferson Ave., Saginaw
Bratrud, T. E.....St. Luke's Hospital, Saginaw
Brender, Friedrich P.....Frankenmuth
Brock, Wm. H. (L).....728 N. Mich. Ave., Saginaw
Bruggers, Laurence.....1703 N. Michigan Ave., Saginaw
Bucklin, Robt. V.....1447 N. Harrison St., Saginaw
Bullington, Bert M.....2000 Court St., Saginaw
Busch, Frank J.....1731 N. Michigan St., Saginaw
Butler, Milton G.....502 S. Jefferson Ave., Saginaw
Cady, Donald J.....1213 N. Michigan Ave., Saginaw
Cady, Fredk. J., Jr.....402 S. Jefferson Ave., Saginaw
Cady, Fredk. J.....402 S. Jefferson Ave., Saginaw
Cambridge, V. W.....Potter at Jefferson, Saginaw
Cameron, Allan K.....1314 S. Jefferson Ave., Saginaw
Campbell, Lloyd A. (R).....335 Brockway Pl., Saginaw
Caumartin, Hugh T...1537 S. Washington Ave., Saginaw
Chisena, Peter R.....6221 Dixie, Bridgeport
Choate, Frances S.....1213 N. Michigan Ave., Saginaw
Claytor, Archer A.....1000 N. 3rd St., Saginaw
Cortopassi, Andre J.....326 S. Washington Ave., Saginaw
Cortopassi, Vital E.....324 S. Washington Ave., Saginaw
Cory, Chas. W.....1227 N. Michigan, Saginaw
Cresswell, T. A.....319 1st Savings & Loan, Saginaw
Curts, James H.....127 S. Washington Ave., Saginaw
Davenport, Clyde P.....703 W. Genesee, Saginaw
Derifield, R. S. (A).....25 Westbrook Court, Saginaw
De Young, William A.....830 S. Jefferson, Saginaw
Dowidat, Raymond W. (A).....608 Westfield, Saginaw
Durman, Donald C.....408 S. Jefferson Ave., Saginaw
Ely, Cecil W.....1820 Janes Ave., Saginaw
Ernst, Arthur R. (R).....4004 Woodland Dr., Falls Church, Va.
Farley, Albert W.....1803 N. Michigan Ave., Saginaw
Feeheley, Robt. D.....3521 State, Saginaw
Fleschner, Thos. E.....Birch Run
Friedrick, David F. (A)....4620 Monroe Blvd., Dearborn
Gage, David P.....2002 Court St., Saginaw
Galsterer, Edwin C.....128 S. Jefferson Ave., Saginaw
Gamon, Adam E., II.....2004 Court St., Saginaw
Gardner, Joe H.....815 N. Michigan Ave., Saginaw
Gerard, Roy J.....1500 Gratiot, Saginaw
Gilmore, Robt. D.....234 W. Saginaw, Merrill
Goldner, Richard D.....1024 N. Michigan, Saginaw
Gomon, Louis D.....100 N. Washington Ave., Saginaw
Goodsell, John O.....408 S. Jefferson, Saginaw
Goodwin, J. E.....418½ W. Genesee, Saginaw
Grigg, Arthur P.....320 N. Michigan Ave., Saginaw
Hand, Eugene A.....126 N. Franklin St., Saginaw
Harvie, Lloyd C.....112 S. Jefferson Ave., Saginaw
Heavenrich, Robt. M.....1107 Gratiot Ave., Saginaw
Heilbronn, Duane B.....P.O. Box 568, Saginaw
Helmkamp, Herbert O.....333 S. Jefferson, Saginaw
Hester, Eustace G.....2031 N. Michigan Ave., Saginaw
Hill, Victor L.....124 S. Jefferson Ave., Saginaw
Howell, Donald M.....112 S. Jefferson Ave., Saginaw
Hyslop, Wm. T.....1610 Gratiot Ave., Saginaw
Jaenichen, Robt. F. T.....520 Hayden St., Saginaw
James, John W.....1021 W. Genesee St., Saginaw
Jarvi, Rudolph M.....1107 Gratiot Ave., Saginaw
Jiroch, Ralph S. (L).....202 Wiechmann Bldg., Saginaw
Johnstone, Kermit T.....Box 2272, S. Side P.O., Saginaw
Jordan, Leo A.....1524 E. Genesee St., Saginaw
Kerr, Wm. B.....300 S. Michigan St., Saginaw
Keyes, James T.....10222 Maple Rd., Birch Run
Kickham, Edward F.....309 S. Jefferson Ave., Saginaw
Kidd, James G. (A).....1500 Weiss St., Saginaw
Kleekamp, Herbert G.....1005 Gratiot Ave., Saginaw
Kleinschmidt, Earl E.....3625 Webber St., Saginaw
Kolesar, Robt. C.....1005 Gratiot, Saginaw
Kowals, Francis V...Med. Dir. Chec. Ser. GMC, Saginaw
Kramer, Chas G.....P.O. Box 2248, Saginaw
Kretschmer, Thos V.....112 S. Jefferson Ave., Saginaw
Lassignal, Jules C.....2125 Bay St., Saginaw
Ling, Ernest M. (R).....R.D. 2, Spring Lake
Ling, Kenneth C.....Hemlock
Lohr, Oliver W.....Box 806, Saginaw
Lohr, Thos. O.....1135 N. Michigan Ave., Saginaw
Love, Neil W.....505 Tuscola, Frankenmuth
Luger, Fredk. E.....303 N. Jefferson Ave., Saginaw
Lurie, Robt. I.....2525 S. Washington Ave., Saginaw
Lyle, Richard C.....Bridgeport
Mahaney, Thos. P.....3521 State St., Saginaw
Manning, John E.....815 N. Michigan Ave., Saginaw
Manning, John W., III.....203 Ardussi, Saginaw
Markey, Francis L.....808 N. Michigan Ave., Saginaw
Markey, Joseph P.....808 N. Michigan, Saginaw
Martzowka, Wm. P.....415 W. Genesee St., Saginaw
Mason, Wm. G.....1107 Gratiot Ave., Saginaw
Matthews, Harry C.....1227 N. Michigan Ave., Saginaw
Maurer, John A.....1109 Elmdale, Saginaw
Mayne, Harold E.....120 N. Michigan, Saginaw
McEwen, Wm. G.....305 Graebner Bldg., Saginaw
McKinney, A. R. (L)....330 S. Washington St., Saginaw
Meadows, Jos. M.....1839 N. Michigan, Saginaw
Meyer, Henry J. (L).....No address
Miller, Glenn F.....404 S. Warren Ave., Saginaw
Moon, A. Raymond.....1008 Hancock, Saginaw
Morgrette, Leonard J.....603 S. Jefferson Ave., Saginaw
Mudd, Richard D.....Chev. Grey Foundry, Saginaw
Murphy, Albert P.....303 N. Michigan Ave., Saginaw
Murray, Morris J.....603 S. Jefferson Ave., Saginaw
Naglins, Jekabs.....Ionia State Hosp., Ionia
Nelson, Oscar A.....120 N. Michigan Ave., Saginaw
Northway, Robt. O.....124 S. Jefferson Ave., Saginaw
Novy, Frank O.....420 S. Jefferson Ave., Saginaw
Olson, Carl P.....2505 Court St., Saginaw
Ostrander, Frank W. (L).....Freeland
Phillips, Homer A.....124 S. Jefferson Ave., Saginaw
Pickett, W. H. (R).....216 S.W. Second St., Gainesville, Fla.
Pietz, Fredk.....221 N. Michigan Ave., Saginaw
Pleune, Russell E.....1500 Weiss St., Saginaw
Potvin, Clifford D.....826 N. Michigan Ave., Saginaw
Powers, Robt. F.....142 Wylie, Saginaw
Prather, Perry E.....1227 N. Mich. Ave., Saginaw
Prinsell, Gustave G. (M).....65 Gower St., London WC 1, England
Rector, Robert D.....2201 State St., Saginaw
Reimers, Gerald F.....638 Tenth St., Saginaw
Richards, Ned W.....3518 State St., Saginaw
Richter, Harry J.....121 E. Genesee St., Saginaw
Roggen, Ivan J.....1227 N. Michigan, Saginaw
Ruskin, Dave B.....120 N. Michigan Ave., Saginaw
Ryan, Richard S.....633 S. Washington Ave., Saginaw
Sample, John T. (L).....Box 2254, Saginaw
Sargent, Donald V.....1703 N. Michigan Ave., Saginaw
Schaiberger, E. G.....10164 Dixie Highway, Birch Run
Schneider, A. J. N.....509 S. Jefferson Ave., Saginaw
Schultz, Frank R.....147 W. Broad St., Chesaning
Sharp, Martin C.....1803 N. Michigan Ave., Saginaw
Shek, John L.....808 N. Michigan Ave., Saginaw
Sheldon, Suel A.....124 S. Jefferson, Saginaw
Siler, D. E.....1827 N. Mich. Ave., Saginaw
Skowronski, C. A.....1401 E. Genesee St., Saginaw
Slack, Walter K.....625 S. Jefferson, Saginaw
Slade, Homer G.....1520 N. Michigan Ave., Saginaw
Stahly, Edward H.....Saginaw County Hosp., Saginaw
Stander, Aaron C.....1411 Court St., Saginaw
Stewart, Geo. W.....1902 Janes St., Saginaw
Sulfridge, Hugh L., Jr.....512 N. Michigan Ave., Saginaw
Thompson, Arthur B.....2328 E. Genesee St., Saginaw
Tiedke, Gunther E.....120 N. Michigan Ave., Saginaw
Toshach, Clarence E.....3655 Schust Rd., Saginaw

Vitu, Robert L.....808 N. Michigan Ave., Saginaw
Volk, Vladimir K...Saginaw Co. Hosp., Box 65, Saginaw
Wallace, Herbert C. (M).....U. S. Military Mission, 1 Iranian Gendarmerie, APO c/o Postmaster, New York, N. Y.
Webb, Walter L.....1502 Wadsworth, Saginaw
Weiss, Arno W.....3521 State St., Saginaw
Westlund, Norman.....349 S. Weadock, Saginaw
Wright, Edwin M.....128 Lynn, Saginaw
Yntema, Stuart.....331 S. Jefferson Ave., Saginaw

ST. CLAIR COUNTY

Bailey, Robt. S.....400 Michigan Bank Bldg., Port Huron
Banting, Kenneth C.....403 Peoples Bank Bldg., Port Huron
Barss, J. A.....1209 Tenth St., Port Huron
Battley, John C. S.....940 Military St., Port Huron
Beck, Frank K.....901 Lapeer Ave., Port Huron
Beer, Jos. F.....104 N. Riverside Ave., Saint Clair
Bennett, Wm. G.....210 S. Main St., Yale
Borden, Chas. L.....216 Sperry Bldg., Port Huron
Bottomley, Thos. H., Jr.....1102 Sixth St., Port Huron
Boughner, Walter H.....325 Pleasant St., Algonac
Bovee, Marion E.....2208 Stone St., Port Huron
Bowden, Wm. S.....137 S. Water St., Marine City
Bridge, Ezra V.....416 Edison Blvd., Port Huron
Brush, Howard O.....612 Peoples Bank Bldg., Port Huron
Cantwell, John D., Jr.....612 Peoples Bank Bldg., Port Huron
Carey, Lewis M. (R).....314 Condict Dr., New Smyrna Beach, Fla.
Carney, Frank V. (R)....1065 N. Riverside St., St. Clair
Carrie, Robt. G.....1423 Michigan Ave., Algonac
Cleland, Wm. D., Jr.....Medical Arts Bldg., Port Huron
Clifford, Robt. P.....506 S. Riverside Dr., St. Clair
Clyne, Benj. C.....103 N. Main St., Yale
Coon, Gerald G. (M).....Fedl. Correctional Inst., Englewood, Colo.
Cooper, Thos. H.....911 Lapeer Ave., Port Huron
Coury, John J., Jr.....1209 Tenth St., Port Huron
Davison, Wm. T.....1108 Military St., Port Huron
Dinnen, Wm. J., Jr.....804 Huron Ave., Port Huron
Douvas, Nicholas G.....311 Pine St., Port Huron
Franke, Armin T.....902 Tenth Ave., Port Huron
Gerrits, James F.....202 Orchard St., St. Clair
Gholz, Anthony C.....Medical Arts Bldg., Port Huron
Gilmore, John R...317 Michigan Bank Bldg., Port Huron
Hazledine, H. L.....4406 Gratiot Ave., Port Huron
Holcomb, Russell J.....141 S. Main St., Marine City
Hoyt, Chas. N.....804 Huron, Port Huron
James, Freburn L.....1209 Willow St., Port Huron
Kahn, Oscar B.....Capac
Kesl, Geo. M.....316 Sperry Bldg., Port Huron
Kirban, Harry N.....1209 Willow St., Port Huron
Kirker, Findlay O.....1325 Michigan Ave., Marysville
Koch, Donald A.....310 E. Water St., Port Huron
Lauridsen, James.....1010 Pine Grove Ave., Port Huron
LeGalley, K. B.....Persian Gulf, Awali Bahrain
Licker, Reuben R.....525 Court St., Port Huron
Ludwig, Claude A.....916 Seventh St., Port Huron
Ludwig, Fredk. E.....916 7th St., Port Huron
Lugg, Robt. M.....940 Military St., Port Huron
MacPherson, C. A. (R)..441 Swing Ave., Louisville, Ky.
Martin, Clyde S. (R).....1740 Via Palermo, Winter Park, Fla.
McColl, Duncan J. (L)....305 Sperry Bldg., Port Huron
Meredith, Evert W.....1102 6th St., Port Huron
Mohney, Glenn E.....311 Pine St., Port Huron
Morris, Alvin N.....204 Sperry Bldg., Port Huron
Novak, Walter S.....310 E. Water St., Port Huron
Patterson, Dorsey W.....622 Huron Ave., Port Huron
Pollock, Donald A. (A).....5014 Lakeshore, Port Huron
Rowe, Robt. E.....3360 W. Water St., Port Huron
Sanderson, Jos. L.....515 Pine St., Port Huron
Sands, Geo. E.....310 Water St., Port Huron
Schaefer, Waldo A.....302 Michigan Bank Bldg., Port Huron
Selby, Clarence D.....1916 Military St., Port Huron
Serniak, John A.....104 S. Main St., Yale
Sites, Edgar C.....1209 Tenth St., Port Huron
Tisdel, James H.....310 E. Water St., Port Huron
Tomsu, Glenn F.....310 E. Water St., Port Huron
Townley, Chas. O.....1209 Tenth St., Port Huron
Ulmer, Arthur H., Jr.....1209 Tenth St., Port Huron
Van Rhee, Geo. (L).....323 Peoples Bank Bldg., Port Huron
Walker, Sidney C.....1209 Tenth St., Port Huron
Ware, J. Raleigh.....3107 24th St., Port Huron
Wass, Henry C.....Saint Clair
Wetzel, John O. (R).....700 Intercostal Dr., Ft. Lauderdale, Fla.
Wilson, Norman R. (A).....Alexander Blaine Hosp., Detroit
Yost, Kenneth W.....1305 Gratiot Ave., Marysville

ST. JOSEPH COUNTY

Berg, Lawrence A.....106 E. Chicago Rd., Sturgis
Bradley, D. E.....428 Burr Oak Rd., Colon
Braham, Wilbur G.....111 S. Monroe, Sturgis
Brothers, Paul L.....104 S. Lakeview, Sturgis
Brunson, Allen E.....206 E. West St., Sturgis
Evans, Robt. H.....111 S. Monroe St., Sturgis
Fiegel, S. Albert.....111 S. Monroe, Sturgis
Fortner, Roscoe J.....137 Portage Ave., Three Rivers
Gillespie, Eleanor M.....103 S. 4th, Sturgis
Jacobowitz, John M.....Lincoln at Millard, Three Rivers
Lamb, Harry.....110 Pleasant Ave., Sturgis
Lepard, Olin L.....104 S. Lakeview, Sturgis
Miller, Chas. G. (L).....106 W. Chicago St., Sturgis
O'Dell, Charles W.....117 Spring St., Three Rivers
O'Dell, John H., Jr.....117 Spring St., Three Rivers
Olney, Harold E.....Leonidas
Pennington, Harry C.....118 S. Kalamazoo, White Pigeon
Penzotti, Stanley C.....117 Spring St., Three Rivers
Porter, Clark G.....226 East St., Three Rivers
Schimnoski, D. R.....Three Rivers Med. Clinic, Three Rivers
Shaw, Geo. D.....117 Spring St., Three Rivers
Sheldon, John P.....206 E. West St., Sturgis
Slote, Leal K. (L)....540 S. Washington St., Constantine
Smith, Robt. D.....Colon
Springer, Russell A. (R).....R.R. 2, Sturgis
Storer, William R.....Centreville
Weisheit, Heinz R.....204 E. West St., Sturgis
Zimont, Charles R.....Constantine
Zimont, Raymond D.....Constantine

SANILAC COUNTY

Blanchard, Ernest W.....Deckerville
Cripps, James R.....Marlette
Ford, Frances A.....2683 S. Lakeshore Rd., Applegate
Gift, Weldon A.....Marlette
Hart, Robt. K.....Croswell
Jayson, Michael H.....6321 E. Marlette St., Marlette
McCrea, John W.....Marlette
McGunegle, Keate T.....Sandusky

Muir, Neil.....Croswell
Seager, M. Cole.....Brown City
Smith, Duane E.....Brown City
Tweedie, G. Evans.....Sandusky
Tweedie, S. Martin.....Sandusky
Winfield, Raymond J.....Marlette

SHIAWASSEE COUNTY

Arnold, Alfred L.....812 Bradley St., Owosso
Austin, Eugene S.....635 N. Ball St., Owosso
Bach, Norman F.....113 E. Williams, Owosso
Brown, Richard C.....113 E. Williams St., Owosso
Brown, Richard J.....113 E. Williams St., Owosso
Buzzard, Walter D.....Chesaning
Chipman, Elwood M.....502 W. Williams St., Owosso
Ford, Wm. J. A., Jr.....113 E. Williams, Owosso
Graves, James H.....511 W. Main St., Owosso
Grommons, Jack R.....214 N. Saginaw, Durand
Gurden, Elizabeth A. L.....113 E. Williams St., Owosso
Harkness, C. A. (L).....529 Clark Ave., Owosso
Harroun, John E.....105 N. Water St., Owosso
Harroun, R. V.....Matthews Bldg., Owosso
Hoshal, Verne L.....104 W. Clinton, Durand
Lieber, Robt. W.....103 E. Clinton St., Durand
MacGregor, John F.....113 E. Williams St., Owosso
Manion, John J.....812 Bradley St., Owosso
McKnight, Edwin R.....320 N. Washington St., Owosso
Merz, Walter L.....Rte. 3, Owosso
Moore, Phillip J.....113 E. Williams, Owosso
Pochert, Rolland C.....105 N. Water St., Owosso
Richards, Chester J.....213 Mercer, Durand
Sahlmark, Jos. F.....812 Bradley St., Owosso
Shepherd, Walter F.....105 N. Water St., Owosso
Weinkauf, Wm. F.....Corunna
Weston, Claude L.....1226 N. Washington, Owosso

TUSCOLA COUNTY

Anderson, Norma.....Caro
Ballard, James H.....Cass City
Cole, Versa V.....Lock Box A, Caro
Cook, Raymond R.....Akron
Dickerson, Willard W.....Caro State Hosp., Caro
Donahoe, Harold T.....Pleasant Home Hosp., Cass City
Elmendorf, E. N., II.....Vassar
Flett, Richard O.....Millington
Gilbert, Donald E.....Mayville
Gugino, Frank J.....Reese
Howlett, Robt. R.....624 W. Frank St. Caro
Merrill, Elmer H.....147 W. Lincoln St., Caro
Miles, Edward J.....Caro
Nigg, Herbert L.....Caro
Savage, Lloyd L.....147 W. Lincoln, Caro
Swanson, Ewald C.....220 N. Main, Vassar
Von Renner, Otto (L).....837 W. Huron St., Vassar

VAN BUREN COUNTY

Boothby, Carl F.....Hartford
Boothby, Fredk. M.....Lawrence
Boothby, Paul Lawrence
Bope, Wm. P. (L).....Decatur
Buckborough, M. W.....511 Huron St., South Haven
Cooper, Jos. E.....417 W. Monroe St., Bangor
Copeland, Evan.....Decatur
Diephuis, Bert.....511 Huron St., South Haven
Dillon, Thos. J.....R.F.D. 3, Paw Paw
Gano, Avison.....417 Monroe St., Bangor
Holm, Leo H.....Gobles
Itzen, John F.....P.O. Box 128, South Haven
Johnson, Harold C. A.....304 Oak St., Paw Paw
Kleber, John A.....311 Center St., South Haven
Loomis, Frank J.....Paw Paw
McFadden, Roscoe I.....Bloomingdale
Millard, David.....Paw Paw
Morgan, Dale K.....326 Michigan Ave., South Haven
Parks, Arthur E.....Lawton
Stagg, Adelbert L.....9 N. Maple St., Hartford
Steele, Arthur H.....Paw Paw
Sundin, Paul W.....105 John St., Decatur
Ten Houten, Charles.....Paw Paw
Terwilliger, Edwin H.....326 Michigan Ave., South Haven
Urist, Martin J.....R. D. 1, South Haven
Young, Wm. R.....Lawton

WASHTENAW COUNTY

Alford, Barry H.....690 S. Main St., Plymouth
Allen, Arthur W.....3 Harvard Pl., Ann Arbor
Anderson, David G. (A).....627 Westwood, Ann Arbor
Atchison, Russell M.....501 Dunlap, Northville
Badgley, Carl E.....1313 E. Ann St., Ann Arbor
Bailey, Robt. W.....University Hosp., Ann Arbor
Banghart, Norman L.....1950 Manchester Rd., Ann Arbor
Barker, Paul S.....1313 E. Ann St., Ann Arbor
Barlow, R. Craig.....326 N. Ingalls St., Ann Arbor
Barnwell, John B.....VA Bldg., Washington 25, D. C.
Barss, Wm. A.....525 W. Cross, Ypsilanti
Bass, Thos. J.....201 S. Hamilton, Ypsilanti
Bassett, Robt. C.....603 S. Capitol Ave., Lansing
Bassow, Paul H.....326 N. Ingalls St., Ann Arbor
Bauer, Gerhard H.....201 S. Main St., Ann Arbor
Bauer, Jere M.....1313 E. Ann St., Ann Arbor
Bauer, L. E., Jr. (A).....930 Lutz, Ann Arbor
Beckett, Morley B.....912 Honey Creek Dr., Ann Arbor
Behrman, Saml.....1313 E. Ann St., Ann Arbor
Beierwaltes, Wm. H.....1204 Bydding Rd., Ann Arbor
Bell, Margaret.....15 Geddes Heights, Ann Arbor
Belser, Walter.....2101 Woodside Rd., Ann Arbor
Bender, Leonard F.....1313 E. Ann St., Ann Arbor
Bentley, Fredk. E.....851 S. Main St., Plymouth
Bethell, Frank H.....409 Lenawee Dr., Ann Arbor
Bicknell, John N. (A).....1381 Jeffrey, Ypsilanti
Bird, H. Waldo, Jr.....1313 E. Ann St., Ann Arbor
Bishop, Ronald C.....1011 Lincoln Ave., Ann Arbor
Blair, Thomas C. (A).....2938 Shady Lane, Ann Arbor
Blatt, Irving (A).....615 Madison Pl., Ann Arbor
Block, George E. (A).....University Hosp., Ann Arbor
Blum, Fred G., Jr. (A)..2210 Keyes Ave., Madison, Wisc.
Bolt, Robt. J.....University Hosp., Ann Arbor
Bonstedt, Theodor (A)....256 Summit St., Marion, Ohio
Bosch, Jan K.....302 W. Main St., Northville
Bostian, David W.....304½ S. State St., Ann Arbor
Botch, Edmund S.....115 E. Liberty St., Ann Arbor
Brewer, Wilson K.....720 E. Catherine St., Ann Arbor
Brody, Gerald L. (A).....1020 Lincoln, Ann Arbor
Brown, Philip N.....Northville State Hosp., Northville
Brown, Wm. E., III....1517 Granger Ave., Ann Arbor
Bryant, H. C.....334 E. Catherine, Ann Arbor
Bull, Frances E.....Simpson Memorial Inst., Ann Arbor
Bullington, Donald C. (A)..309 E. Madison, Ann Arbor
Burks, Henry L.....University Hosp., Ann Arbor
Butler, Chas. W., Jr. (A)....310 N. Thayer, Ann Arbor

Campbell, Darrell A.....617 Stratford, Ann Arbor
Carr, Edward A., Jr.....Dept. of Pharm., U. of M., Ann Arbor
Carroll, Catherine.....615 Cressfield Lane, Ann Arbor
Carron, Dean P.....309 S. State St., Ann Arbor
Castor, William C., Jr. (A).....2505 Pittsfield Blvd., Ann Arbor
Cary, Edward A.....1931 Lorraine Pl., Ann Arbor
Challener, W. A., III (A).....2829 Fernwood Ave., East Ann Arbor
Cheek, George W., Jr. (A).....University Hosp., Ann Arbor
Clark, Oswald V. (A).....1326 Arella Blvd., Ann Arbor
Clements, Glendon T. (A).....Elg Rd., Alma
Clyde, Ensign E.....1246 Sheridan Ave., Plymouth
Coller, Fredk. A. (L).....1313 E. Ann St., Ann Arbor
Conn, Jerome W.....1721 Shadford Rd., Ann Arbor
Conrad, James K. (A).....270 Ramona, Salt Lake City, Utah
Coppridge, Alton J. (A).....1510 Granada, Ann Arbor
Crook, Clarence E.....2112 Wallingford, Ann Arbor
Cummings, Howard H. (L).....326 N. Ingalls St., Ann Arbor
Currier, Robt. D. (A)....University Hosp., Ann Arbor
Curtis, Arthur C.....1313 E. Ann St., Ann Arbor

Davenport, Fred M.....1038 Martin Pl., Ann Arbor
Davey, Winthrop N.....1313 E. Ann St., Ann Arbor
Deatrick, Richard W.....1323 Franklin Blvd., Ann Arbor
De Jong, Russell N.....1313 E. Ann St., Ann Arbor
Denko, Chas. W.....1313 E. Ann St., Ann Arbor
De Tar, John S.....55 W. Main St., Milan
De Weese, Marion S.....University Hosp., Ann Arbor
Dingman, Reed O.....1407 Lincoln Ave., Ann Arbor
Dolfin, Wilbur E.....2107 Devonshire Rd., Ann Arbor
Domino, Edward F.....1325 Brooklyn, Ann Arbor
Donaldson, Saml. W.....326 N. Ingalls St., Ann Arbor
Doorn, Henry A.....1110 Miner St., Ann Arbor
Dryer, Clyde K.....3033 Sophia St., Wayne
Dukay, Alexander P.....Ypsilanti State Hosp., Ypsilanti

Eberhard, Theodore P.....326 N. Ingalls St., Ann Arbor
Edmunds, Wm. P.....23 N. Washington, Ypsilanti
Edwards, Aaron R.....916 Church St., Ann Arbor
Elliott, Lyle D.....19 N. Washington, Ypsilanti
Engelke, Otto K.....810 Hutchins, Ann Arbor
English, David C.....1699 Broadway, Ann Arbor
Evans, Tommy N.....1001 Belmont Rd., Ann Arbor

Fajans, Stefan S.....248 Devonshire, Ann Arbor
Falk, Elwin C.....14 N. Hamilton, Ypsilanti
Falls, Harold F.....1313 E. Ann St., Ann Arbor
Feller, Irving (A).....2565 Carmel St., Ann Arbor
Fellman, S. L.....1550 Ardmoor Dr., Ann Arbor
Figley, Melvin M.....University Hosp., Ann Arbor
Finch, Stuart M.....Child Psychiatric Hosp., Ann Arbor
Fink, Geo. C.....411 N. Ingalls St., Ann Arbor
Fisher, Jos. V.....Chelsea
Fliegel, Martin B.....Hawthorn Center, Northville
Flotte, C. Thos.....1043 Olivia Ave., Ann Arbor
Forster, Linn H. (A).....270 Meier Land, Pittsburgh 23, Pa.
Forsythe, Warren E. (L)....2680 Van Ness, Eugene, Ore.
Fox, Winslow G.....715 N. University, Ann Arbor
Fralick, F. Bruce.....2101 Belmont Rd., Ann Arbor
Francis, Thos., Jr.....U. Mich. Schl. Pub. Hlth., Ann Arbor
Fransway, Robt. L.....244 Mason Ave., Ann Arbor
French, A. James.....1313 E. Ann St., Ann Arbor
Frohlich, Moses M.....1313 E. Ann St., Ann Arbor
Frost, Lyle W.....309 N. Washington St., Ypsilanti
Fry, Richard M. (A).....University Hosp., Ann Arbor
Frye, Carl H.....301 N. Ingalls St., Ann Arbor
Furstenberg, A. C.....1313 E. Ann St., Ann Arbor

Ganzhorn, Edwin C.....309 S. Main St., Ann Arbor
Geist, James H. (A).....1604 Dexter Rd., Ann Arbor
Getting, Vlado A.....1200 Arlington Blvd., Ann Arbor
Gignac, Ralph M.....32320 Michigan, Wayne
Gillett, Robt. L. (A).....3652 St. John's Ave., Jacksonville 5, Fla.
Goldsmith, Neal A. (A)....409 E. Greenwood, Bend, Oregon
Goldsmith, Robt. I.....1211 Prospect St., Ann Arbor
Golloway, Glenn G. (A).....Ypsilanti State Hosp., Ypsilanti
Gosling, J. R. G.....1510 Chandler, Ann Arbor
Gotz, Alexander.....709 Sunset Rd., Ann Arbor
Gould, Stuart M., Jr.....225 E. Liberty St., Ann Arbor
Graham, Bruce D.....2402 Vinewood Blvd., Ann Arbor
Graham, Iris J. (A).....Box A, Ypsilanti
Grawn, Frank A. (R).....604 Pearl St., Ypsilanti
Grillo, S. Phillip.....265 Main St., Belleville
Gross, H. Phil (A).....406 W. Cypress, Lampoc, Calif.
Guthrie, Frank W., Jr. (A).....3412 Edgewood, Ann Arbor

Haas, Adolf (A).....Box A, Ypsilanti
Hagerman, Geo. W.....321 N. Ingalls St., Ann Arbor
Haight, Cameron.....2112 Vinewood Blvd., Ann Arbor
Hammond, Walter W., Jr.....905 W. Ann Arbor Trail, Plymouth
Handorf, Heinrich H.....Penniman Allen Theatre, Northville
Hankamp, Lamar J.....1412 E. Park Place, Ann Arbor
Hannum, Marvin R.....54 W. Main, Milan
Hanson, Frederick N.....45341 Harmony Lane, Belleville
Harrell, E. R., Jr.....1313 E. Ann St., Ann Arbor
Harris, Bradley M.....220 Pearl St., Ypsilanti
Harris, Scott T.....1144 Roosevelt Blvd., Ypsilanti
Harrison, Saul I.....Child Psychiatric Hosp., Ann Arbor
Hartwell, S. W., Jr. (A).....919 Edgewood Ave., Ann Arbor
Hayes, John T.....1680 Arlington Blvd., Ann Arbor
Henderson, John W.....2113 Devonshire Rd., Ann Arbor
Hendrix, Robt. C.....1139 Vesper Rd., Ann Arbor
Henry, L. Dell.....706 W. Huron St., Ann Arbor
Heyner, Conrad S. (A).....1805 Pauline, Ann Arbor
Hicks, Richard B.....Box A, Ypsilanti State Hosp., Ypsilanti
Hildebrandt, H. Mark.....1130 Hill St., Ann Arbor
Hill, B. J. (A).....1437 Jeffery St., Ypsilanti
Himler, Leonard E.....1225 Fairoaks Pkwy., Ann Arbor
Hinerman, Dorin L.....1313 E. Ann St., Ann Arbor
Hodges, Fred J.....1313 E. Ann St., Ann Arbor
Hodges, Robert E. (A).....1817 Northwood Apts. Ann Arbor
Hodgson, N. B. (A).....914 S. Fifth St., Ann Arbor
Holmes, Donald J. (A).....1718 Longshore Dr., Ann Arbor
Holmes, Joyce M. (A)....711 Haven Street, Ann Arbor
Holt, John F.....1313 E. Ann St., Ann Arbor
Holtz, Fred.....University of Mich., Ann Arbor
Hoobler, Sibley W.....2228 Belmont, Ann Arbor
Hopp, Ralph L. (A).....338 E. Kingsley, Ann Arbor
Horowitz, Irving J. (A).....2509 Pittsfield Blvd., Ann Arbor
House, Frederic B.....1240 Crosby Crescent, Ann Arbor
Howard, Stacy C.....2724 N.E. 35th Dr., Ft. Lauderdale, Fla.
Howard, W. Leonard.....Maybury San., Northville
Ideson, Robt. S., II.....200 N. Ingalls St., Ann Arbor
Jacob, Jos. S.....202 E. Washington St., Ann Arbor
Jampel, Robert S. (A)..1595 Woodland Dr., Ann Arbor
Jimenez, B. (R).....215 A S. Main St., Ann Arbor
Johnson, Robt. D.....2314 Pittsfield Blvd., Ann Arbor
Johnston, Franklin D.....1313 E. Ann St., Ann Arbor
Jones, Elizabeth.....2121 Highland Rd., Ann Arbor

Kabza, Theodore G.....2222 Parkwood, Ann Arbor
Kahn, Edgar A.....500 Burson Pl., Ann Arbor
Kambly, Arnold H., Jr.....201 S. Main St., Ann Arbor
Keeler, Wm. H., III (A)....3426 Oakwood, Ann Arbor
Keese, Antonia J.....2029 Ferdon Rd., Ann Arbor
Kemp, W. R., Jr.....8124 Main St., Dexter
Kerlikowske, A. C.....1313 E. Ann St., Ann Arbor
Kern, Wheeler H.....P.O. Box 7, Garden City
Kittleson, Arthur C. (A).....1717 Pontiac, Ann Arbor
Kivi, Louis P.....1619 Kirtland Dr., Ann Arbor
Knoll, Leo A.....2002 Scottwood, Ann Arbor

Knox, C. Frank, Jr. (A).....1450 University Tr., Ann Arbor
Koepke, Geo. H.....1313 E. Ann St., Ann Arbor
Korst, Donald R.....Veterans Adm. Hosp., Ann Arbor
Kraft, R. O. (A).....337 Lake Park Lane, Ann Arbor
Kretzschmar, Wm. A. (A).....University Hosp., Ann Arbor
Krigbaum, Edmund M. (A)..3518 Edgewood, Ann Arbor
Lafler, C. J. (A).....435 Evergreen Dr., Ann Arbor
Lampe, Isadore.....1313 E. Ann St., Ann Arbor
Lapides, Jack.....1313 E. Ann St., Ann Arbor
Latourette, Howard B.....1313 E. Ann St., Ann Arbor
La Vielle, Carroll J.....1500 Kirtland Dr., Ann Arbor
Lavigne, J. Arthur (A).....No address
Law, John L.....1706 Cambridge Rd., Ann Arbor
Lemmen, Lloyd J.....VA Hosp., Pittsburgh 40, Penn.
Lindner, Arthur E. (A)....University Hosp., Ann Arbor
Linman, James W...400 Washington Ave., Wilmette, Ill.
Litton, Ward B. (A).....University Hosp., Ann Arbor

Loughrin, T. D. (A).....1496 Newport Rd., Ann Arbor
Lovell, Robert G.....123 W. Medical Bldg., Ann Arbor
Lowry, Claud M.....1707 Shadford Rd., Ann Arbor
MacGuire, G. F. (A).....326 N. Ingalls, Ann Arbor
MacKenzie, James W. (A).....University Hosp., Ann Arbor
Magee, Kenneth R.....1313 E. Ann St., Ann Arbor
Magielski, John E.....2355 Londonderry Rd., Ann Arbor
Malcolm, Karl D.....311 N. Ingalls St., Ann Arbor
Maley, John E.....5441 Walsh Rd., Whitmore Lake
Mandeville, Richard C.....36856 Thinbark Rd., Wayne
Marshall, Mark (L).....St. Joseph's Mercy Hosp., Ann Arbor
Martin, Donald W.....19 W. Michigan Ave., Ypsilanti
Mason, Joyce W.....1908 Scottwood, Ann Arbor
Mason, Stephen C., III....122 N. Thayer St., Ann Arbor
Mathews, Kenneth P.....1145 Aberdeen Dr., Ann Arbor
Maxwell, James H.....1313 E. Ann St., Ann Arbor
McCabe, Brian F. (A).....915 E. Ann, Ann Arbor
McCubbrey, David R. (A).....1430 Golden Ave., Ann Arbor
McEachern, Thos. H.....1130 Hill St., Ann Arbor
McKinley, Donald.....133 W. Michigan Ave., Ypsilanti
McLean, James A.....1313 E. Ann St., Ann Arbor
McMorris, D. L. (A)....115 Lincoln Ave., Williamsport
McWilliams, John R.....201 S. Main St., Ann Arbor
Meyers, Muriel C.....Simpson Mem. Inst., Ann Arbor
Milford, A. F., Jr.....111 South Prospect St., Ypsilanti
Mikkelsen, Wm. M. (A)....University Hosp., Ann Arbor
Miller, Harold A.....205 S. Davenport St., Saline
Miller, Ira I.....201 S. Main St., Ann Arbor
Miller, Norman F.....1313 E. Ann St., Ann Arbor
Miller, Rolf F. (A).....1417 Wells St., Ann Arbor
Miller, Seward E.....1630 University Hosp., Ann Arbor
Moore, Kenneth B.....Box A, Ypsilanti
Moore, Robert A.....730 Northside Ave., Ann Arbor
Morley, Geo. W.....University Hosp., Ann Arbor
Morris, Joe D.....1313 E. Ann St., Ann Arbor
Muehlstein, John H. (A).....2387 Parkwood, Ann Arbor

Nelson, Roger B.....1313 E. Ann St., Ann Arbor
Nesbit, Reed M.....815 Berkshire, Ann Arbor
Newton, Chas. W., Jr.....115 E. Liberty St., Ann Arbor

Obenauf, Walter H.....Ypsilanti State Hosp., Ypsilanti
O'Connor, Gerald A.....1230 Creal Crescent, Ann Arbor
O'Connor, Patricia A. (A)....715 S. Forest, Ann Arbor
Oliphant, Lizzie W. (L).....790 Barton Shore Dr., Ann Arbor
Ostrander, L. D., Jr.....2321 Pittsfield Blvd., Ann Arbor

Page, Merle C. (A).....2315 Fernwood St., Ann Arbor
Pahucki, Gena R.....317 S. State St., Ann Arbor
Palmer, Algernon A.....110 E. Middle St., Chelsea
Parker, Alden R. (A).....1608 White St., Ann Arbor
Parnall, C. G. (L).....519 Onondaga St., Ann Arbor
Pati, Prasanna K. (A).....State Hosp., Salem, Ore.
Payne, Beverly C.....527 E. Liberty St., Ann Arbor
Payne, Charles E.....2403 Yorkshire, Ann Arbor
Perez, Antonio (A).....814 W. Liberty, Ann Arbor
Person, Douglas A. (A).....891 Rose Drive, Ann Arbor
Peters, McHenry, Jr. (A)....880 S. First St., Ann Arbor
Peterson, Thomas R.....1072 Morningside, Ann Arbor
Petrohelos, Manousos A.....32 N. Washington St., Ypsilanti
Place, Edwin H.....Detroit Trans. G.M.C., Ypsilanti
Pollack, Hans L. (M)....116 Bridget Ct., Lackland AFB San Antonio, Texas
Pollard, H. Marvin....2012 Vinewood Blvd., Ann Arbor
Potter, Marcia L.....318 W. Cross, Ypsilanti
Prout, Gordon J.....113 N. Arbor St., Saline
Purfield, Wm. P.....Manchester

Rae, James W., Jr.....1313 E. Ann St., Ann Arbor
Ransom, Henry K.....1402 Washington Hgts., Ann Arbor
Raphael, Theophile.....33 E. Ridgeway St., Ann Arbor
Rapp, Robert.....1460 Cedar Bend Dr., Ann Arbor
Ratliff, Rigdon K.....326 N. Ingalls St., Ann Arbor
Regan, Wm. J., Jr.....326 N. Ingalls, Ann Arbor
Rehner, Robt. C.....1506 Golden, Ann Arbor
Reichert, Rudolph E., Jr.....1046 Baldwin, Ann Arbor
Reinhart, Melvin J. (A).....870 S. First St., Ann Arbor
Rekshan, Wm. R.....28 Prospect St., Ypsilanti
Reus, Wm. F., Jr. (M).....Larson AFB, Washington
Riecker, Herman H.....2109 Wallingford Rd., Ann Arbor
Robinson, Orlo J., Jr.....501 Dunlap, Northville
Robinson, Wm. D.....1313 E. Ann St., Ann Arbor
Rodin, Ernst A.....1313 E. Ann St., Ann Arbor
Rosenzweig, Norman.....University Hospital, Ann Arbor
Ross, C. Howard.....715 N. University Ave., Ann Arbor
Roth, F. Dale (A).....University Hosp., Ann Arbor
Rowe, Kenneth E. (M).....USA SETAF APO 168, New York, N. Y.

Saer, John K. (A).....University Hosp., Ann Arbor
Santos, Crisostomo C. (A).....866 Real St., Parmaque Rizal, Philippines
Saunders, Allen.....2361 E. Stadium Blvd., Ann Arbor
Sayre, Geo. S.....1208 Whittier, Ypsilanti
Schepers, G. W. H. (A)....1223 Forest Ave., Ann Arbor
Schlacht, Geo. F.....Romulus
Schneider, Richard C.....1313 E. Ann St., Dept. N.S., Ann Arbor
Schoch, Henry K.....Vets Admin. Hosp., Ann Arbor
Schorr, Robt. T. (A).....University Hosp., Ann Arbor
Schultz, Ernest C., Jr.,.....20172 Sheffield, Detroit
Schumacher, Wm. E.....201 S. Main St., Ann Arbor
Scovill, Henry A.....1313 W. Cross St., Ypsilanti
Seevers, Maurice H.....Univ. of Mich. Med. Sch., Ann Arbor
Segat, Maria Z.....455 Huntington Dr., Ann Arbor
Selzer, Melvin L.....1856 Stadium Place, Ann Arbor
Shaen, Edward.....111 Kenwood Ave., Ann Arbor
Sheldon, John M.....212 Tuomy Rd., Ann Arbor
Shoecraft, Harriet L.....1018 Ferdon Rd., Ann Arbor
Shubeck, Frank (A).....807 Bruce St., Ann Arbor
Sigler, Louis E., Jr.....1443 Covington Dr., Ann Arbor
Sink, Emory W. (L).....725 N. University Ave., Ann Arbor
Sirola, Olga.....1454 Collegewood, Ypsilanti
Slee, Vergil N.....201 S. Main St., Ann Arbor
Slenger, Walworth R.....252 E. Lovell St., Kalamazoo
Smillie, John W.....2615 Overridge Dr., Ann Arbor
Smith, Edwin M. (A).....1720 Chandler, Ann Arbor
Smith, Eleanor.....521 39 E. Liberty St., Ann Arbor
Smith, Russell F.....9569 Main St., Whitmore Lake
Spalding, Leland F. (A).....1818 Chandler Dr., Ann Arbor
Sparling, Irene L. M.....251 E. Main St., Northville
Spears, Clarence W.....302 W. Cross, Ypsilanti
Steinmetz, Philip R. (M)....2nd Gen. Hosp., APO 180, c/o Postmaster. New York, N. Y.
Straffon, Ralph A. (A) 1216 Birk, Ann Arbor
Streeten, B. A. W.....2387 Jeanne St., Ann Arbor
Struthers, James N. P.....Box A, State Hosp., Ypsilanti
Sturgis, Cyrus C.....Simpson Mem. Inst., Ann Arbor
Swank, Helen S.....404 Wildwood, Ann Arbor
Sweet, Robt. B.....1313 E. Ann St., Ann Arbor

Tanay, Emanuel (A) 17007 Kercheval, Detroit
Taylor, Wm. B.....1313 E. Ann St., Ann Arbor

Teed, R. Wallace.....2300 Melrose, Ann Arbor
Thibault, J. P. (A).....809 E. Kingsley, Ann Arbor
Thieme, Elliott T.....326 N. Ingalls St., Ann Arbor
Thompson, A. S.....Beyer Memorial Hosp., Ypsilanti
Thompson, George R. (A)..1400 Traver St., Ann Arbor
Thompson, Ian M.....University Hosp., Ann Arbor
Timmons, Robert L. (A).....1207 Prescott, Ann Arbor
Tisserand, John B., Jr. (A).....2827 Pittsfield Blvd., Ann Arbor
Towsley, Harry A.....1000 Berkshire, Ann Arbor
Trager, Fredk. C. (A).....University Hosp., Ann Arbor
Tupper, Chas. J.....2 Medford Court, Ann Arbor
Tytus, John S. (A).....805 Heatherway, Ann Arbor
Vandivier, Thomas G. (A)..400 Emerson Ave., Houston, Texas
Van Duzen, Verne L.....Box A, Ypsilanti
Van Reesema, F. S. (A)....508 Second St., Ann Arbor
Vaughen, J. L. (A).....University Hosp., Ann Arbor
Venrose, Robt. J.....143 W. Main St., Milan
Votaw, Charles L.....715 Lawrence St., Ann Arbor
Vreede, Pieter (M).....Naval Disp., Navy Dept., Washington, D. C.
Waggoner, R. Walter.....3333 Geddes Rd., Ann Arbor
Waid, Margaret E.....319 N.W. 16th Ave., Gainesville, Fla.
Waldron, Alexander M.....309 N. Ingalls, Ann Arbor
Washburne, Charles L. (L)....St. Joseph's Mercy Hosp., Ann Arbor
Watson, Ernest H.....280 Barton Drive N., Ann Arbor
Weisman, Raoul L.....32 N. Washington, Ypsilanti
Weller, John M.....1621 South Blvd., Ann Arbor
Werley, John D. (A)....3618 Wilmdre Ave., Easton, Pa.
Westcott, Geo. W.....1515 S. Congress St., Ypsilanti
Westerberg, Martha R.....1313 E. Ann St., Ann Arbor
Westover, Chas. J.....982 W. Ann Arbor Trail, Plymouth
Wetterstroem, Robt. G.....46376 W. 7 Mile Rd., Northville
Whale, Edmund H.....207 Fletcher Ave., Ann Arbor
Wicht, Paul J.....1385 W. Michigan, Ypsilanti
Wile, Udo J. (L).....201 S. Main St., Ann Arbor
Williams, Howard R...1950 Manchester Rd., Ann Arbor
Williamson, Fredk. B.....319 W. Michigan Ave., Ypsilanti
Willis, Park W. III (A)....University Hosp., Ann Arbor
Wilson, J. Leroy.....1313 E. Ann St., Ann Arbor
Wilson, William S. (A).....526 Linden St., Ann Arbor
Winkler, James M. (A)..2015 Crestland Dr., Ann Arbor
Wisdom, Inez R. (L).....705 N. University Ave., Ann Arbor
Wolfman, Earl F., Jr. (A).....827 Bruce St., Ann Arbor
Woo, Theresa T.....708 W. Huron St., Apt. 5, Ann Arbor
Woods, James J.....19 N. Washington St., Ypsilanti
Worth, Melissa H. C.....R.F.D. 7, 3211 Packard Rd., Ann Arbor
Wright, Walter J. (L).....417 W. Cross St., Ypsilanti
Wyman, John S.....2224 Highland Rd., Ann Arbor
Yoder, John R. (A).....2137 Earhart Rd., Ann Arbor
Yoder, Orus R.....Ypsilanti State Hosp., Ypsilanti
Youmans, Julian R. (A).....1906 Northwood Apts., Ann Arbor
Zerbi, Victor M.....315 N. Adams, Ypsilanti
Zick, Gerald A. (A).....207 Montgomery St., Ann Arbor

WAYNE COUNTY

Abbott, James A.....310 E. Jefferson, Detroit 31
Aben, Gerald J.....1542 Meadow Lane, Inkster
Abraham, Joseph P.....2799 W. Grand Blvd., Detroit 2
Abruzzo, Anthony M.....Wayne Co. Training School, Northville
Adamian, Gerald D.....10 Peterboro St., Detroit 1
Adams, James R.....14741 Michigan Ave., Dearborn
Adams, Vincent B.....15124 Kercheval, Grosse Pte. 30
Adelson, Seymour S.....19207 Schaefer, Detroit 35
Adelson, Sidney L.....16221 Schoolcraft, Detroit 27
Adler, Philip.....17193 Greenlawn Ave., Detroit 21
Adler, Sidney.....3011 W. Grand Blvd., Detroit 2
Agnew, Geo. H.....3011 W. Grand Blvd., Detroit 2
Agnone, Eugene J.....1420 St. Antoine St., Detroit 26
Agree, A. Alan.....2701 Holbrook Ave. Ham., Detroit 12
Aiuto, Jas. J.....660 Cadieux Rd. G.P., Detroit 30
Akroyd, Cecil 16551 W. Warren, Detroit 8
Alban, Emil J., Jr.....7940 Allen Rd., Allen Park
Albrecht, Albert J.....11624 Wisconsin Ave., Detroit 4
Alexander, Eugene J.....24140 Wilson, Dearborn
Alexander, L. C.....1204 Kales Bldg., Detroit 26
Alford, Elvis S.....105 Main St., Belleville
Allen, John V.....1336 Southfield Rd., Lincoln Park
Alles, Russell W...17555 James Couzens Hwy., Detroit 35
Allison, Herbert C.....81 Kercheval Ave., Detroit 36
Alpern, E. Bryce.....2840 W. 7 Mile Rd., Detroit 21
Alpiner, Sam.....2850 E. Seven Mile Rd., Detroit 34
Altman, Raphael.....5057 Woodward Ave., Detroit 2
Altshuler, Ira M.....2211 Woodward Ave., Detroit 1
Alvarez, Herman, Jr.....Henry Ford Hosp., Detroit 2
Amos, Thos. G.....2842 W. Grand Blvd.. Detroit 2
Anderson, Chas. P.....16733 Plainview Rd., Detroit 19
Anderson, James O.....7715 Middlepointe Ave., Dearborn
Anderson, Walter L.....1553 Woodward Ave., Detroit 26
Anderson, Walter T.....Pittsboro, N. C.
Andries, Geo. H.....3001 W. Grand Blvd., Detroit 2
Andries, Raymond C. (L).....964 Lakepointe St., Grosse Pointe 30
Annessa, Domenico M.....3536 Burns Ave., Detroit 14
Anslow, Robt. E.....10 Peterboro St., Detroit 1
Appelman, Howard B...1553 Woodward Ave., Detroit 26
Archambault, Henry A. (A).....5057 Woodward Ave.. Detroit 2
Archambault, Rene F.....35550 Michigan Ave.. Wayne
Arehart, Burke W.....11540 Morang Dr , Detroit 24
Arent, John G.....12600 Grand River Ave., Detroit 4
Arminski, Thos. C.....3011 W. Grand Blvd., Detroit 2
Armstrong, Arthur G.....3001 W. Grand Blvd., Detroit 2
Armstrong, Mac J.....15125 Grand River Ave., Detroit 27
Arnkoff, Morris.....966 Fisher Bldg., Detroit 2
Arnold, Effie E. (L).....16520 Oakfield, Detroit 35
Arnold, Wm. J., Jr.....8203 12th St.. Detroit 6
Arrington, Robyn J.....7811 Oakland Ave., Detroit 11
Ascher, Meyer S.....5057 Woodward Ave., Detroit 2
Ashe, Stilson R. (L)....8031 W. Vernor Hwy., Detroit 9
Ashley, Lowell B.....18050 Fairway Dr., Detroit 21
Asselin, Dean R.....1553 Woodward Ave., Detroit 26
Asselin, Regis F.....20480 Eastwood Dr. H.W., Detroit 36
Atler, Lawrence R.....681 W. Forest Ave., Detroit 1
Auble, Max E.....1063 Devonshire, Detroit 30
August, Harry E.....5057 Woodward Ave., Detroit 2
Austin, Shirley.....5224 St. Antoine St., Detroit 2
Ausum, John D.....7685 Dacosta, Detroit 39
Avrin, Ira.....10821 Puritan, Detroit 38
Axelrod, Arnold R.....17300 Schaefer Hwy., Detroit 35
Axelrod, Mildred A.....13725 8 Mile Rd., Detroit 35
Axelrod, Robt. G.....18518 Appoline, Detroit 35
Babcock, Lloyd K.....16420 Schoolcraft Ave., Detroit 27
Babcock, Myra E.....7 Poplar Park, Pleasant Ridge
Babcock, Warren W.....18254 Oak Dr., Detroit 21
Bach, Walter F.....5419 Livernois Ave., Detroit 10
Bacher, Burton J.....1015 Kales Bldg., Detroit 26
Bachman, Morris E.....3001 W. Grand Blvd., Detroit 2
Bacon, Vinton A.....4819 W. Fort St., Detroit 9
Bader, Benj. H.....5210 Third Ave., Detroit 2
Baeff, Michael A. (R)....15435 Stahelin Ave., Detroit 23
Baer, Geo. J.....1553 Woodward Ave., Detroit 26
Baer, Raymond B.....7815 E. Jefferson Ave., Detroit 14
Bagley, Harry E.....7541 Oakman Blvd., Dearborn
Bahra, Robt. J.....24621 Gardner, O.P., Detroit 37
Bailey, Donald A. (R)....3300 Woodstock Dr., Detroit 21
Bailey, Louis J.....Medical Concourse, Northland Center, Detroit 35
Baima, Margaret A.....5057 Woodward Ave., Detroit 2
Baker, Clarence (L).....19182 Patton Ave., Detroit 19
Bakst, Joseph A.....10 W. Warren, Detroit 1

Balaga, Frank T.....9701 Joseph Campau Ave., Hamtramck 12
Balberor, Harry.....275 W. Grand Blvd., Detroit 16
Balcerski, Matthew A.....10 Peterboro St., Detroit 1
Ballard, Donald R.....22231 W. Outer Dr., Dearborn
Balser, Chas. W.....13931 Gratiot, Detroit 5
Barak, Lewis R.....7448 W. Seven Mile Rd., Detroit 21
Baran, Alphonse W.....15841 W. Warren St., Detroit 28
Barbaglia, Louis C.....16378 Harper, Detroit 24
Barber, Radivoj R.....504 S. Main St., Plymouth
Barefield, Alwin S.....8629 W. Eight Mile Rd., Detroit 21
Barenholtz, Benj.....18410 Greenlawn Ave., Detroit 21
Barker, David H.....7220 Gratiot Ave., Detroit 13
Barnes, Van D.....11040 Ingram, Livonia
Barnett, Louis L.....10 Witherell St., Detroit 26
Barnett, Morton.....1150 Griswold St., Detroit 26
Barnett, Saul E.....744 Lothrop St., Detroit 2
Barone, C. Gerald.....15231 W. 7 Mile Rd., Detroit 35
Barrett, C. D., Jr.....334 Bates, Detroit 26
Barrett, Raymond J.....18280 Fairfield, Detroit 21
Barrett, Wyman D.....1553 Woodward Ave., Detroit 26
Barron, James.....2535 Amberly Rd., Birmingham
Barron, Wm. H.....14938 Livernois St., Detroit 21
Barton, Jos. R.....7503 W. Warren Ave., Detroit 10
Batchelor, Thomas M.....4500 Pacific, Detroit 4
Bates, Gaylord S.....861 Monroe Blvd., Dearborn
Battle, John M.....6904 Charlesworth, Garden City
Bauer, A. Robt.....19268 Grand River Ave., Detroit 23
Bauer, Benedict J.....16451 Schoolcraft, Detroit 6
Bauer, Lester E.....4 Woodside Pk., Pleasant Ridge
Baugh, Richard H.....24216 Michigan Ave., Dearborn
Baumer, Moe.....10 Peterboro, Detroit 1
Baumgarten, Elden C...8045 E. Jefferson Ave., Detroit 14
Baumgarten, Thos. W...8045 E. Jefferson Ave., Detroit 14
Bayles, John G.....3416 Michigan Ave., Detroit 16
Beach, Watson.....20825 Mack, G.P.W., Detroit 36
Beam, A. Duane....20160 Mack Ave., Grosse Pte. Woods
Beamer, Geo. D.....14853 Michigan Ave., Dearborn
Beard, James E.....906 N. Highland, Dearborn
Beck, Stanley M., Jr.....13118 Fort St., Wyandotte
Becker, Abraham.....10 Witherell St., Detroit 26
Becker, Jos. W.....1553 Woodward Ave., Detroit 26
Beckett, Peter G. S.....951 E. Lafayette St., Detroit 7
Beckett, Victoria L.....1420 Anita, Grosse Pte. Woods
Becklein, Clarence L...14351 E. Warren Ave., Detroit 15
Bedell, Archie A.....15545 Mack Ave., Detroit 24
Bedwell, Wm. L.....1249 Washington Blvd., Detroit 26
Beebe, Willard E.....13365 Michigan Ave., Dearborn
Beeuwkes, L. E.....13014 MacKenzie Ave., Detroit 27
Behan, Robt. C.....500 Griswold St., Detroit 26
Beigler, Sydney K.....1553 Woodward Ave., Detroit 26
Beitman, Max R.....76 W. Adams, Detroit 26
Belanger, W. Geo.....1041 Harvard, G.P., Detroit 30
Belden, Darwin F.....13339 Woodrow Wilson, Detroit 38
Belisle, John A.....Wayne County Gen'l Hosp., Eloise
Bell, J. Kenner.....660 Woodward Ave., Detroit 26
Bende, Sandor F.....9174 Lane St., Detroit 9
Beninson, Joseph.....Henry Ford Hospital, Detroit 2
Bennett, Germany E.....5144 Hastings St., Detroit 11
Bennett, Harry B.....5057 Woodward Ave., Detroit 2
Bennett, H. Stanley.....29767 E. River Rd., Grosse Ile
Bennett, Sanford A.....15301 W. Nine Mile Rd., Oak Park 37
Bennett, Zina B.....2730 E. Jefferson, Detroit 7
Bennish, E. Leo.....21415 W. 8 Mile Rd., Detroit 19
Benson, Clifford D.....1553 Woodward Ave., Detroit 26
Benson, Davis A.....3706 Sturtevant Ave., Detroit 6
Benson, Paul J.....2355 Fort St., Lincoln Park
Benson, Virginia M.....16238 Snowden Ave., Detroit 35
Berge, Clarence A.....878 Lakewood, Detroit 15
Berger, Edwin L.....7301 Schaefer Rd., Dearborn
Bergman, Murray S.....4400 Livernois Ave., Detroit 10
Bergman, Theodore I.....7330 W. Seven Mile Rd., Detroit 21
Berk, J. Edward.....6767 W. Outer Dr., Detroit 35
Berke, Sydney S.....3333 E. Jefferson, Detroit 7
Berkey, William E. (R)....915 Andres, Coral Gables, Fla.
Berkman, Ruth.....10 Witherell St., Detroit 26
Berlien, Ivan C.....2906 E. Jefferson Ave., Detroit 7
Berlin, Allen B.....19467 Livernois, Detroit 21
Berman, Lawrence.....1401 Rivard St., Detroit 7
Berman, Robt. H.....2111 Woodward, Detroit 1
Berman, Sidney.....1326 E. Seven Mile Rd., Detroit 3
Berman, Sidney L.....60 W. Hancock Ave., Detroit 1
Bernard, Walter G.....910 Chalmer, Detroit 15
Bernbaum, Bernard.....17320 Livernois, Detroit 21
Bernstein, Albert E. (L).....19292 Warrington Dr., Detroit 21
Bernstein, Saml. S.....18200 Wyoming, Detroit 21
Berry, Jos. E.....19242 W. 7 Mile Rd., Detroit 19
Berzins, Erna.....20211 Greenfield, Detroit
Besancon, John H.....12621 Northlawn Ave., Detroit 38
Best, Thos. H. E. (L)..9221 E. Jefferson Ave., Detroit 14
Bethea, Hardee.....76 W. Adams St., Detroit 26
Bialik, Michael H.....14853 Michigan Ave., Dearborn
Bicknell, Edgar A.....13641 Wyoming Ave., Detroit 38
Bicknell, Frank B.....1553 Woodward Ave., Detroit 26
Bielawski, John G.....8124 E. Morrow Circle, Detroit 4
Bigman, Oscar.....1151 Taylor Ave., Detroit 2
Bihl, John H.....Northville St. Hosp., Northville
Billingslea, Thos. H.....2175 Willis Ave. E., Detroit 7
Biluk, Frank J.....15074 Houston Whittier, Detroit 5
Birch, John R.....5057 Woodward Ave., Detroit 2
Birkam, Fred F.....7301 Schaefer Rd., Dearborn
Birkelo, Carl C. (R)....1630 Chestnut, Winter Park, Fla.
Birkelo, Carl H.....Metropolitan Hosp., Detroit 2
Birkhill, F. Ross.....19510 Roslyn Rd., Detroit 21
Birmingham, John R.....14216 W. McNichols Rd., Detroit 35
Birndorf, Leonard.....18092 Muirland, Detroit 21
Bittker, Isadore I.....3321 Rochester Rd., Royal Oak
Bittrich, Norbert M.....2500 W. Grand Blvd., Detroit 8
Black, Perry S.....19431 Van Dyke Ave., Detroit 34
Blain, Alexander W. (L).....2201 E. Jefferson Ave., Detroit 7
Blain, Alexander, III....2201 Jefferson Ave. E., Detroit 7
Blain, Donald G.....2201 E. Jefferson, Detroit 7
Blain, James H., Jr...119 Kercheval Rd. G.P., Detroit 36
Blaine, Max.....5057 Woodward Ave., Detroit 2
Blair, Wm. F.....81 E. Kirby St., Detroit 2
Blanchard, Russell S.....8811 Hamilton, Detroit 2
Bleier, Alfred.....13015 E. Warren Ave., Detroit 15
Bleier, Jos.....7504 Dexter Blvd., Detroit 6
Bloch, Abraham.....2935 E. Milwaukee Ave., Detroit 11
Block, Duane L.....3001 Miller Rd., Dearborn
Block, Melvin A.....2799 W. Grand Blvd., Detroit 2
Blodgett, James B.....76 W. Adams St., Detroit 26
Blodgett, Wm. E. (L).....76 W. Adams Ave., Detroit 26
Blodgett, Wm. H.....74 W. Adams Ave., Detroit 26
Bloom, Albert.....6484 Chene St., Detroit 11
Bloom, Arthur R.....5057 Woodward Ave., Detroit 2
Bloor, Robt. J.....Henry Ford Hosp., Detroit 2
Blumenthal, Franz L.....3011 W. Grand Blvd., Detroit 2
Blumer, Abraham.....25321 Five Mile Rd., Detroit 39
Boccaccio, John L.....11532 Morang, Detroit
Boccia, James J.....15761 E. Warren. Detroit 24
Boddie, Arthur W.....2737 Chene St., Detroit 7
Bogucki, Chester J.....11455 E. McNichols Rd., Detroit 34
Bogue, Robt. E.....15800 W. McNichols Rd., Detroit 35
Bogusz, Ladislaus (R).....29215 Maranya Rd., Homestead, Fla.
Bohn, Z. Stephen.....10 Peterboro St., Detroit 1
Bohne, A. Waite.....2799 W. Grand Blvd., Detroit 2
Boland, John R. (R).....Box 50, Grand Marais
Bollet, Alfred J.....1401 Rivard, Detroit 7
Bolstad, Donald S.....2799 W. Grand Blvd., Detroit 2
Bolter, Sidney.....15228 W. Seven Mile Rd., Detroit 35
Bolton, Russell P., Jr.....19566 Grand River Ave., Detroit 4
Bookstein, Abraham M.....1475 Colton Ave., Detroit 3
Borchak, Robert G. (A).....24584 Mabray, East Detroit
Bornstein, Sidney.....2033 Puritan, Detroit 3
Bott, Edmund T.....1629 Ford, Wyandotte
Botvinick, Isadore.....13701 W. 7 Mile Rd., Detroit 35
Boutrous, Thos. A.....15801 W. McNichols, Detroit 35

Bovill, Edwin G.....17555 Couzens Hwy., Detroit 35
Bower, Donald W.....1005 Kings Hwy., Lincoln Park
Bower, Franklin T.....Ford Motor Co., Detroit 32
Bowers, Leo J.....11200 E. McNichols Rd., Detroit 34
Boyajian, Albert.....27459 Five Mile Rd., Livonia
Boyd, John H.....2615 W. Jefferson, Trenton
Boyle, Albert J.....Wayne St. University, Detroit 2
Boyle, Robert E.....Fisher Body Div. GMC, Livonia
Bracken, Andrew H.....13102 W. Warren Ave., Dearborn
Braden, Robt. G.....7728 Island Blvd., Grosse Ile
Bradfield, Horace F.....3008 E. Grand Blvd., Detroit 2
Bradley, Geo. T.....1553 Woodward Ave., Detroit 26
Bradshaw, Wm. H.....4715 St. Antoine St., Detroit 1
Brady, Herbert A...10593 W. Jefferson, R.R., Detroit 18
Braley, Wm. N. (L).....12897 Woodward, Detroit 3
Bramigk, Fritz W. (L).....10 Peterboro St., Detroit 1
Brand, Benj.....4500 Wabash Ave., Detroit 8
Braun, Lionel.....18644 Muirland Ave., Detroit 21
Braverman, Morris M.....5057 Woodward Ave., Detroit 2
Bredau, Frank N., Jr.....19195 Montevista, Detroit 21
Brekke, Viola G.....369 Glendale St., Highland Park 3
Bremer, John P.....17818 E. Warren, Detroit 24
Bremer, Wm. M.....15641 E. Warren, Detroit 24
Breneman, Gerald M.....16926 13 Mile Rd., Birmingham
Brennan, Michael J...1176 Grayton, G. P. Pk., Detroit 30
Brent, Morris S.....1330 Strathcona Dr., Detroit 3
Brey, Norman W.....5057 Woodward Ave., Detroit 2
Briegel, Walter A. (R).....1012 Henrietta, Birmingham
Briggs, Wm. J.....5057 Woodward Ave., Detroit 2
Brines, Osborne A.....1415 Parker Ave., Detroit 14
Bringard, Elmer L.....18110 Fairfield Ave., Detroit 21
Briski, Jacob E. (A).....13000 Eckles Rd., Livonia
Brisson, Jos. C.....9191 Whittier St., Detroit 24
Bristol, Wm. R.....6142 Bishop, Detroit 24
Broadman, Sylvan A.....25705 Middlebelt, Farmington
Brock, Donald (A)..Mt. Carmel Mercy Hosp., Detroit 35
Broderson, Harvey S. (R).....10720 W. Jefferson, River Rouge 18
Bromme, Wm.....10 Peterboro St., Detroit 1
Bronson, Wm. W.....22128 Grand River, Detroit 19
Brooks, Chas. W., II.....2033 E. Davison St., Detroit 12
Brooks, Eugene M.....1103 Kales Bldg., Detroit 26
Brooks, Nathan.....76 W. Adams, Detroit 26
Brosius, Chas. O.....41001 Seven Mile Rd., Northville
Brosius, Wm. L.....16150 Sorrento, Detroit 35
Broudo, Philip H. (L).....10 Peterboro, Detroit 1
Brough, Glen A.....1553 Woodward Ave., Detroit 26
Brown, Andrew G...18230 Grand River Ave., Detroit 23
Brown, Audrey O.....5057 Woodward Ave., Detroit 2
Brown, Carlton F...16552 Westmoreland Rd., Detroit 19
Brown, Chas. H.....2387 Fort St., Wyandotte
Brown, Eli M.....13123 La Salle, Huntington Woods
Brown, Frances.....1940 Lincolnshire, Detroit 3
Brown, Gordon T.....13000 Hayes Ave., Detroit 5
Brown, Henry S.....18101 Jas. Couzens Hwy., Detroit 35
Brown, John R.....5057 Woodward Ave., Detroit 2
Brown, Robt. A.....3529 W. Jefferson, Detroit 29
Brown, Saml. M.....18268 Sorrento Ave., Detroit 35
Brown, Stanley H.....8544 W. McNichols Rd., Detroit 21
Brown, Thos. A.....5430 W. Warren Ave., Detroit 10
Brownell, H. H.....9124 St. Mary's, Detroit 28
Brownell, Paul G.....18916 Woodward Ave., Detroit 3
Bruder, Robt. C.....21721 Hickery Wood Dr., Dearborn Township
Bruehl, Richard A. (A).....4303 Yorkshire, Detroit 24
Bruer, Edgar S.....12170 Fort St., Wyandotte
Bruer, Edwin L.....12170 Fort St., Wyandotte
Brundage, Robt. D.....1914 Edgewood, Dearborn
Brunke, Bruno B. (L).....7765 Mack Ave., Detroit 14
Brush, Brock E.....2799 W. Grand Blvd., Detroit 2
Bruton, Martin F.....341 Massachusetts, Detroit 3
Bryan, Donald I.....13700 Woodward Ave., Highland Park 3
Bryan, John B.....2799 W. Grand Blvd., Detroit 2
Bryce, John D.....5400 Trumbull Ave., Detroit 8
Budd, Richard D...41001 W. Seven Mile Rd., Northville
Budson, Danl.....17195 Muirland, Detroit 21
Buell, John H.....188 Provencal Rd. G.P.F., Detroit 36
Buerki, Robin C...201 Lake Shore Rd. G.P.F., Detroit 36
Burke, Ralph M.....5057 Woodward Ave., Detroit 2
Burnham, David C.....13700 Woodward Ave., Highland Park
Burns, Robert E.....Henry Ford Hospital, Detroit 2
Burns, Robt. T.....11110 Morang Rd., Detroit 24
Burnside, Howard B.....20403 Stratford, Detroit 21
Burnstine, Julius Y.....45 Owen Ave., Detroit 2
Burnstine, Perry P.....434 W. Palmer Ave., Detroit 2
Burr, Geo. C.....2016 W. Boston Blvd., Detroit 6
Burr, H. Leonard.....168 Fisher Rd. G.P., Detroit 30
Burroughs, Roswell G.....31624 Auburn Dr., Birmingham
Burrows, Howard A.....10423 W. Warren Ave., Dearborn
Burnstein, Harry S.....2950 W. Grand Blvd., Detroit 2
Burstein, I. Marvin.....2950 W. Grand Blvd., Detroit 2
Burstein, Morris M.....2950 W. Grand Blvd., Detroit 2
Burton, D. T.....54 Arden Park, Detroit 2
Burton, Irving F.....14624 E. 7 Mile Rd., Detroit 5
Bush, Glendon J.....18901 W. McNichols, Detroit 19
Butler, Harry J. (L).....33 Waverly Ave., Highland Park
Butler, Harry R.....20410 Ecorse Rd., Dearborn
Butler, John D.....2173 W. Grand Blvd., Detroit 8
Butler, J. Payne.....3403 W. Warren St., Detroit 8
Butler, Lawrence H.....14521 East 7 Mile Rd., Detroit 5
Butler, Volney N.....28 W. Adams Ave., Detroit 26
Buttrum, Edward J.....14755 Fenkell St., Detroit 27
Byers, Dudley W.....8934 Oakland, Detroit 11
Cahalan, Joseph L.....1553 Woodward Ave., Detroit 26
Cain, Waldo L.....8033 Twelfth St., Detroit 6
Cadieux, Henry W. (L)....103 E. Grand Blvd., Detroit 7
Cajigas, Thomas R.....23119 N. Rosedale Ct., St. Clair Shores
Caldwell, Geo. L.....12017 Joseph Campau, Detroit 12
Caldwell, John R.....2799 W. Grand Blvd., Detroit 2
Calkins, H. Neill.....15302 Gilchrist, Detroit 27
Callaghan, Thos. T.....10 Peterboro St., Detroit 1
Cameron, Duncan A.....23401 Ford, Dearborn
Campbell, Chas. A.....12922 W. Warren Ave., Dearborn
Campbell, Duncan (L).....9203 Grand River Ave., Detroit 4
Campbell, Duncan A. (L).....1553 Woodward Ave., Detroit 26
Campbell, Everett W.....7901 W. Jefferson, Detroit 17
Campbell, H. E.....Herman Kiefer Hosp., Detroit 2
Campbell, Malcolm D.....10 Peterboro St., Detroit 1
Campbell, Mary B.....660 Seward, Detroit 2
Campbell, Robt. E.....8445 E. Jefferson Ave., Detroit 14
Campbell, Ruth B.....1536 David Whitney Bldg., Detroit 26
Campbell, Thelma W.....22375 Garrison Ave., Dearborn
Candler, Clarence L.....20040 Mack Ave., Detroit 36
Canter, Allie L.....13700 Woodward, Highland Park 3
Canter, Gayle E.....13732 Woodward Ave., Detroit 3
Cantor, Herbert C.....5057 Woodward Ave., Detroit 2
Cantor, Meyer O...4850 Charing Cross Rd., Birmingham
Cantow, Lawrence A.....3011 W. Grand Blvd., Detroit 2
Capano, Oreste A.....16901 James Couzens, Detroit 35
Capellari, Elmer E.....310 E. Jefferson, Detroit 26
Caputo, Jos. M.....22575 Nona, Dearborn
Caputo, Nancy T.....18145 Mack Ave., Detroit 24
Capuzzi, Eugene T.....24644 Gleneyrie Dr., Birmingham
Caraway, James E.....35804 John R St., Wayne
Carbone, Louis.....14711 Gratiot Ave., Detroit 5
Carlisle, John C.....1221 Lincoln, Lincoln Park
Carlisle, Jos. D.....2605 W. Grand Blvd., Detroit 8
Carlson, Harold W.....18070 Wildemere Ave., Detroit 21
Carmichael, Edward K.....7815 E. Jefferson Ave., Detroit 14
Carnes, Harry E.....Parke Davis Co., Detroit 32
Carp, Jos.....8717 Van Dyke, Detroit 13
Carpenter, C. J.....P.O. Box 390, Wayne
Carpenter, Wm. S.....1553 Woodward Ave., Detroit 26
Carr, James G.....14111 Korte, Detroit 15
Carrick, Lee....506 Lakeshore Lane, G.P.W., Detroit 36
Carroll, Elmer H.....9920 Stoepel Ave., Detroit 4
Carroll, Jerome G.....19723 Dale, Detroit 19
Carroll, Lona B.....5057 Woodward Ave., Detroit 2
Carson, Herman J.....7745 Puritan Ave., Detroit 38

Carstens, Henry R.....1200 Main St., Springfield 3, Mass.
Carter, John M.....18900 Fairway Dr., Detroit 21
Carter, Leland F.....750 Middlesex, G.P.P., Detroit 30
Cassel, Harry E.....6525 Park, Allen Park
Cassidy, William J. (L).....1553 Woodward Ave., Detroit 26
Castle, Maurice E.....18980 Wyoming, Detroit 21
Castrop, Chas. W.....10149 Michigan Ave., Dearborn
Catherwood, Albert E.....19490 Stratford Rd., Detroit 21
Caton, Dorothy F. (A).....19182 Mendota, Detroit 21
Caughey, Andrew F., Jr.....16889 James Couzens Hwy., Detroit 35
Caughey, Edgar H.....11301 Whittier St., Detroit 24
Caumartin, Fred E.....17184 Wildemere, Detroit 21
Cellar, Frank A., Jr.....5057 Woodward Ave., Detroit 2
Ceravolo, Albert J.....468 Cadieux Rd. G.P., Detroit 30
Cetnar, Eugene J.....4322 Bishop, Detroit 24
Chabut, V. Geo.....206 W. Dunlap St., Northville
Chalat, Ned I.....1553 Woodward Ave., Detroit 26
Chalk, Carl C.....264 Stephens Rd., Grosse Pointe Farms
Chall, Henry G.....2941 W. McNichols Rd., Detroit 21
Chapin, Sidney E.....125 N. Military, Dearborn 7
Chapman, Aaron L. (L).....2550 Atkinson, Detroit 6
Chapman, Paul T.....1151 Taylor Ave., Detroit 2
Chapman, Roland H.....7600 John R St., Detroit 2
Chapnick, Henry A.....76 W. Adams St., Detroit 26
Chapper, Barbara M.....861 Monroe, Dearborn
Charleston, R. A.....17256 Pierson, Detroit 19
Charnas, Sidney.....5057 Woodward Ave., Detroit 2
Chase, Clyde H. (R).....8868 Hendrick Dr., Brighton
Chason, Jacob L.....1401 Rivard St., Detroit 7
Check, Frank E.....76 W. Adams Ave., Detroit 26
Chen, Calvin.....State Hosp., Northville
Chesluk, Herman M...17191 J. Couzens Hwy., Detroit 35
Chester, Alice.....25085 Coolidge Hwy., Oak Park
Chester, Wm. P.....2916 Seminole, Detroit 14
Childs, Geo. M.....2842 W. Grand Blvd., Detroit 38
Chipman, Willard A.....14300 W. McNichols Rd., Detroit 35
Chostner, Grover C. (R).....841 Eden Isle Blvd., St. Petersburg, Fla.
Chown, Marion C.....2853 Biddle St., Wyandotte
Christopher, James G.....4777 E. Outer Dr., Detroit 34
Chrouch, Laurence A.....18456 Grand River, Detroit 23
Church, Aloysius S.....19570 Bretton Dr., Detroit 23
Cioffari, Mario S.....19363 Jas. Couzens Hwy., Detroit 35
Ciprian, Jos. E.....1775 E. Grand Blvd., Detroit 11
Clapper, Muir.....6294 McClellan Ave., Detroit 13
Clark, Arthur M.....318 Beechmont, Dearborn
Clark, Chas. J.....136 S. Highland, Dearborn
Clark, Clarence M.....2605 Holbrook Ave., Detroit 12
Clark, Harold E.....17198 Oak Dr., Detroit 21
Clark, Harry G. (R).....5455 Franklin Rd., Birmingham
Clark, Wm. P.....511 E. Ann St., Ann Arbor
Clarke, Chas. N.....2501 W. Grand Blvd., Detroit 8
Clarke, Norman E.....2501 W. Grand Blvd., Detroit 8
Clarke, Norman E., Jr.....2501 W. Grand Blvd., Detroit 8
Clarke, Robt. B.....76 W. Adams Ave., Detroit 26
Clifford, Chas. H.....10 Peterboro St., Detroit 1
Clifford, Geo. O., Jr.....Wayne Univ. Coll. of Med., Detroit
Clifford, John E.....232 Stephens, Detroit 36
Clifford, Robt. H.....2799 W. Grand, Detroit 2
Clifford, Thos. P.....1553 Woodward Ave., Detroit 26
Clippert, Julius C. (L).....Hotel Fort Shelby, Detroit
Coan, Glenn L.....2336 Van Alstyne Blvd., Wyandotte
Coates, E. Osborne, Jr.....253 Hillcrest Rd. G.P.F., Detroit 36
Cobane, John H.....10 Peterboro Ave., Detroit 1
Cochrane, Edgar G.....503 Med. Arts Bldg., Detroit 3
Cocorelis, S. G.....610 Kales Bldg., Detroit 26
Cohen, Herbert H.....12700 W. 7 Mile Rd., Detroit 35
Cohen, Melvin F.....20242 Braile, Detroit 19
Cohn, Danl. E.....2211 Woodward Ave., Detroit 1
Cohoe, Don A. (L).....18916 Woodward Ave., Detroit 3
Cole, Fredk. H. (L)....1553 Woodward Ave., Detroit 26
Cole, James E.....344 Glendale Ave., Detroit 3
Cole, Wyman C. C.....3011 W. Grand Blvd., Detroit 2
Cole, Wyman C. C., Jr...3011 W. Grand Blvd., Detroit 2
Coleman, Peter F.....31410 Joye Rd., Livonia
Coleman, Wm. G.....20526 Grand River Ave., Detroit 19
Collings, M. Raymond....9201 W. Outer Dr., Detroit 19
Collins, James E.....13103 W. Chicago Blvd., Detroit 28
Collins, James W.....15870 Twelfth St., Detroit 38
Colvin, Leslie T.....3011 W. Grand Blvd., Detroit 2
Colyer, Raymond G.....56 Rhode Island Ave., Highland Park 3
Comfort, Milton D.....Flat Rock
Comly, Hunter H.....Lafayette Clinic, Detroit 7
Comstock, Lawrence A.....2299 West Rd., Trenton
Conklin, Emma J.....Wayne Co. Gen. Hosp., Eloise
Conley, Lowry C. M.....99 Tuxedo Ave., Detroit 3
Connelly, Richard C.....1360 Three Mile Dr., Detroit 30
Connolly, Frank O.....13815 Puritan Ave., Detroit 27
Connolly, Paul J.....16778 Westmoreland Rd., Detroit 19
Connors, John J.....3546 Trumbull Ave., Detroit 8
Cook, James A.....2246 20th St., Wyandotte
Cook, James C.....3825 Brush St., Detroit 1
Cooksey, Warren B.....19510 Stratford Rd., Detroit 21
Cooper, Edmund L.....914 Shirley Dr., Birmingham
Cooper, James B.....18145 Mack Ave., Detroit 24
Cooper, Ralph R.....15610 Linnhurst, Detroit 5
Cooper, Richard F.....1553 Woodward Ave., Detroit 26
Corbeille, Catherine.....3011 W. Grand Blvd., Detroit 2
Cortez, Joseph A.....16901 James Couzens, Detroit 35
Costello, Russell T.....3001 W. Grand Blvd., Detroit 2
Costello, Stephen D.....2900 S. Fort St., Detroit 17
Cotant, John F.....8935 Fenkell Ave., Detroit 38
Cotruro, Louis D.....3640 McDougall Ave., Detroit 7
Coulter, Wm. J.....5258 Chatsworth, Detroit 24
Courtney, Rufus S.....Wayne Co. Gen. Hosp., Eloise
Courville, Chas. J.....5057 Woodward Ave., Detroit 2
Cowan, Wilfrid.....14239 Chandler Pk. Dr., Detroit 13
Cowen, Leon B.....5057 Woodward Ave., Detroit 2
Cowen, Robt. L.....91 E. Kirby, Detroit 2
Cox, Frank, Jr.....Henry Ford Hospital, Detroit 2
Coyle, James E.....3011 W. Grand Blvd., Detroit 2
Craig, Roy E.....22740 Carolina, St. Clair Shores
Crawford, Edward W.....5057 Woodward Ave., Detroit 2
Crews, Thos. H.....3011 W. Grand Blvd., Detroit 2
Crockett, E. E. J.....7341 W. Warren, Detroit 10
Croll, Leo J.....5057 Woodward Ave., Detroit 2
Croll, Maurice.....5057 Woodward Ave., Detroit 2
Crook, Chas. L.....60 Colorado St., Highland Park 3
Cross, Harold E.....68 N. Deepland Rd., Grosse Pointe
Crossen, Robt. J.....1553 Woodward Ave., Detroit 26
Croushore, James E.....3001 W. Grand Blvd., Detroit 2
Cruikshank, A. (L)....7860 Van Dyke Place, Detroit 14
Cubberley, Robert B.....1800 Tuxedo St., Detroit 6
Cunningham, John J.....2675 Rochester, Detroit 6
Curhan, Jos. H.....18709 Meyers Rd., Detroit 35
Curtis, Frank E.....10 Peterboro St., Detroit 1
Curtiss, Wm. P.....1570 Torrey Rd. G.P.W., Detroit 36
Cushing, Russell G.....13424 Gratiot Ave., Detroit 5
Cusick, Paul L.....17575 Oak Dr., Detroit 21
Czuj, John M.....17198 Oak Dr., Detroit 21
Daignault, M.F.....14300 W. McNichols Rd., Detroit
Dale, Edward C.....28 Adams Ave. W., Detroit 26
Dale, Esther H.....1401 Rivard St., Detroit 7
Dale, Mark.....3340 E. 8 Mile Rd., Detroit 34
Daly, Eugene T.....21714 Fenhell St., Detroit 23
Danforth, James C., Jr.....20175 Mack Ave. G.P.W., Detroit 36
Danforth, Mortimer E. (L).....1311 Cadillac Blvd., Detroit 14
Danforth, Robt. D.....20175 Mack Ave.. Detroit 36
Darling, Chas. E.....3011 W. Grand Blvd., Detroit 2
Darling, Milton A.....3001 W. Grand Blvd., Detroit 2
Darnley, James D.....2799 W. Grand Blvd., Detroit 2
Darpin, Peter H. (L).....6602 W. Fort St., Detroit 9
Davidson, David M.....3011 W. Grand Blvd.. Detroit 2
Davidson, Harold H.....17111 Indiana, Detroit 21
Davidson, Harry O.....2799 W. Grand Blvd., Detroit 2
Davies, Thos. S. (L).....15425 Kercheval St., Grosse Pointe 30
Davies, Windsor S.....28 W. Adams Ave., Detroit 26

Davis, Herbert A.....15565 Champagne, Allen Park
Davis, Wm. N.....Wayne Co. Gen. Hosp., Eloise
Dawson, W. A. (R).....304 Avenue B S.E., Winter Haven, Fla.
Day, A. Jackson.....245 Cloverly Rd., G.P.F., Detroit 36
Day, Jay C.....1553 Woodward Ave., Detroit 26
Dean, Carleton R. (M).....Off. of Vocnl. Rehab., 42 Broadway, Room 1200, New York City 4, N. Y.
De Busk, Roger W.....4160 John R St., Detroit 1
Deering, Robt. J.....1359 Champaign, Lincoln Park
De Giustino, Caesar.....1175 E. Grand Blvd., Detroit 11
De Groat, Albert F.....1151 Taylor Ave., Detroit 2
Deitch, Daniel.....275 W. Grand Blvd., Detroit 16
Delaini, Stella M.....3011 W. Grand Blvd., Detroit 2
Delaney, James R.....17565 Muirland, Detroit 21
De Lawrence, Betty J.....21576 Michigan Ave., Dearborn
De Lawrence, Thomas....21576 Michigan Ave., Dearborn
Del Giorno, Thos. E.....809 Shoreham, Detroit 36
Del Valle, Mario.....9801 Conant, Detroit 12
Demaray, John F.....15312 Burt Rd., Detroit 23
Dennis, Melvin S.....751 S. Military St., Dearborn
Depaulis, Dario C.....22644 Gratiot, East Detroit
Deponio, Sylvester A...20215 Van Dyke Ave., Detroit 34
Deresz, Alphonse R.....4204 E. Outer Dr., Detroit 34
Derleth, Paul E.....563 W. Oakridge, Detroit 20
Derr, John W.....5057 Woodward Ave., Detroit 2
De Smyter, Geo. C.....15527 E. Warren, Detroit 24
De Spelder, Ray E.....2970 W. Grand Blvd., Detroit 2
Deuby, Owen J.....15105 W. 7 Mile Rd., Detroit 35
Deur, Julius J. (M).....271 Kerby Road, Detroit 30
De Vault, Marion L.....1326 St. Antoine, Detroit 26
Devine, Herbert W.....22101 Moross Rd., Detroit 36
Diakow, Lilian M.....2853 Biddle St., Wyandotte
Dibble, Harry F.....1553 Woodward Ave., Detroit 26
Dickenman, Robt. C.....1420 St. Antoine St., Detroit 26
Dickson, Basil R.....337 W. Grand Blvd., Detroit 16
Dickson, Elias L., Jr.....7716 Oakland Ave., Detroit 11
Dickson, Laurie C., Jr.....400 Lincoln Rd., Grosse Pointe 30
Dickson, Leon A.....5119 Milford St., Detroit 10
Dickson, Mary D.....18424 Mack Ave., Grosse Pointe 36
Diebel, Nelson W.....660 Cadieux Rd. G. P. Pk., Detroit 30
Diekman, Fred C.....15800 W. McNichols Rd., Detroit 35
Dieterich, Gordon C.....15800 W. McNichols, Detroit 35
Dietze, Margaret R.....861 Monroe, Dearborn
Dietzel, Hugo O.....1024 Seven Mile Rd., Detroit 3
Dill, Hugh L.....16114 E. Warren Ave., Detroit 24
Dill, J. Lewis.....18615 Birchcrest, Detroit 21
Di Loreto, Panfilo C.....285 Vincennes Pl. G.P.F., Detroit 36
Di Maso, Gennaro J.....21501 Kelly, East Detroit
Dimond, Geo. E.....6853 Orchard St., Dearborn
Dittmer, Edwin F.....18412 Mack Ave. G.P.F., Detroit 36
Ditzler, John W.....490 St. Clair, G.P., Detroit 30
Dixon, Fredk. W.....245 S. Martha, Dearborn
Dixon, Ray S. (L).....5001 Van Dyke, Detroit 13
Dixon, Robt. K.....201 E. Kirby, Detroit 2
Dodds, John C. (L)....1553 Woodward Ave., Detroit 26
Dodenhoff, Chas. F.....18031 Kelly Rd., Detroit 24
Dodrill, F. D.....Woodberry Dr., Bloomfield Hills
Doering, Wendell R.....17555 James Couzens, Detroit 35
Dolan, Edward A...817 David Whitney Bldg., Detroit 26
Dolega, Stanley F.....10053 Gratiot, Detroit 13
Dolgoff, Sidney.....15600 Michigan Ave., Dearborn
Dolin, Simon.....Lynn Hospital, Detroit 17
Domzalski, Casimir A...5361 McDougall Ave., Detroit 11
Domzalski, Henry M.....15252 Gratiot Ave., Detroit 5
Donald, Douglas.....7815 E. Jefferson Ave., Detroit 14
Donovan, Eugene T.....13365 Michigan Ave., Dearborn
Donovan, Richard S.....17555 James Couzens, Detroit 35
Doran, John H.....15101 Plymouth Rd., Detroit 27
Dorman, Jack.....18245 Warrington Dr., Detroit 21
Dorsey, John M.....Professional Bldg., Adrian
Doty, Chester A. (L)....1553 Woodward Ave., Detroit 26
Doub, Howard P.....2799 W. Grand Blvd., Detroit 2
Dougherty, Edward A., Jr.....18241 W. McNichols Rd., Detroit 19
Douglas, Clair L. (L)..1553 Woodward Ave., Detroit 26
Douglass, Robt C.....32316 Grand River Ave., Farmington
Dovitz, Benj. W.....95 Martin Pl., Detroit 1
Dowdle, Edward (L)....2501 W. Grand Blvd., Detroit 8
Downer, Ira G.....8445 E. Jefferson Ave., Detroit 14
Downes, Geo. O.....15062 Houston, Detroit 5
Drake, Ellet H.....2799 West Grand Blvd., Detroit 2
Drake, James J. (R).....8845 Marygrove Dr., Detroit 21
Draves, Edward F.....19647 Joy Rd., Detroit 28
Drazek, Jos. A.....18980 Wyoming, Detroit 21
Drews, Robt. S.....12500 Broadstreet Blvd., Detroit 4
Drinkaus, Harold I (M)..1029 Yorkshire, Grosse Pte. 30
Droock, Victor.....10 Peterboro St., Detroit 1
D'Sena, Dorothy.....35084 Chestnut, Wayne
Dubin, Jos. J.....10401 W. Chicago Blvd., Detroit 4
Dubnove, Aaron.....2115 W. Grand Blvd., Detroit 8
Dubois, Paul W.....10 Witherell St., Detroit 26
Dubpernell, Martin S. (L)....4019 Gilbert St., Detroit 10
Dubpernell, Robt. O.....18595 Grand River, Detroit 23
Dudek, John J.....16401 Grand River, Detroit 27
Dumke, Paul R.....2799 W. Grand Blvd., Detroit 2
Dundas, Edward M.....1235 Beechmont, Dearborn
Dunlap, Henry A.....7815 Jefferson Ave. E., Detroit 14
Dunn, Cornelius E.....3496 Burns, Detroit 14
Dupler, Gerald E.....10 Peterboro, Detroit 1
Durham, Everett W.....844 N. Highland St., Dearborn
Durham, Robert.....Henry Ford Hospital, Detroit 2
Durocher, Edmund J. (L).....4158 W. Jefferson Ave., Ecorse 18
Durocher, Raymond E.....4158 W. Jefferson Ave., Ecorse 29
Dutcher, Dwight J.....21742 New Castle, H.W., Detroit 36
Duwe, Frank A.....25300 Fenkell Ave., Detroit 39
Dwaihy, Paul J.....14530 E. Warren, Detroit 15
Dwyer, Francis W.....18000 James Couzens, Detroit 35
Dyer, H. Lorne.....641 David Whitney, Detroit 26
Dykema, Rosemary M.....18424 Mack Ave., Detroit 36
Dziuba, John F.....18901 W. Warren Ave., Detroit 28
Dzul, Paul (A).....275 W. Grand Blvd., Detroit 16
Eades, Chas. C.....19635 Mack Ave., Detroit 36
Eadie, Gordon A.....16083 Southampton St., Livonia
Eakins, F. J. (R).....Henderson County, Robards, Ky.
Easterly, Robt. L.....2854 Biddle Ave., Wyandotte
Eaton, Crosby D.....3011 W. Grand Blvd., Detroit 2
Ebner, Charles M. (A)....22925 Colony, St. Clair Shores
Echt, Raymond J.....13027 Pembroke, Detroit 35
Eckhous, Arthur W.....76 W. Adams St., Detroit 26
Eder, Saml. J.....5057 Woodward Ave., Detroit 2
Edgar, Irving I.....5057 Woodward Ave., Detroit 2
Edmonds, Gerald W.....19795 St. Mary's Ave., Detroit 35
Edmonds, Wm. N.....18525 Merriman Rd., Livonia
Edmondson, Robt. B.....18501 Mack Ave., Detroit 36
Egan, Charles F.....Wyandotte Gen. Hosp., Wyandotte
Eisenbrey, A. B.....Henry Ford Hospital, Detroit 2
Eisman, Clarence H. (L).....1121 Whittier Rd., Grosse Pointe Park 30
Eldredge, Edward F.....18540 Mack Ave., Grosse Pointe 36
Elliott, Robt. N.....8100 E. Jefferson, Detroit 14
Elliott, Wm. G.....4101 Fenkell Ave., Detroit 38
Ellis, Frank R.....1440 Venice Ave., Dearborn
Elman, Meyer J.....14002 Woodward Ave., Highland Park 3
Elson, Abraham L.....20236 Westmoreland, Detroit 19
Elvidge, Robt. J.....2900 W. Grand Blvd., Detroit 2
Emmert, Herman C. (L).....7303 Grandmont Ave., Detroit 28
Engel, Earl H.....2336 Van Alstyne Blvd., Wyandotte
Engstrom, Fredk. W.....1443 Birchcrest Dr., Dearborn
Engstrom, Ruby M.....1777 Culver Ave., Dearborn
Eno, Laurel S.....20960 Kelly Rd., East Detroit
Ensign, Dwight C.....Franklin
Erickson, Eldon W.....25750 W. Outer Dr., Lincoln Park
Erkfitz, A. W.....545 David Whitney Bldg., Detroit 26
Erman, Jos. M.....9225 Grand River, Detroit 4
Eschbach, Jos. W.....935 S. Military St., Dearborn

Estabrook, Bert U. (L).....850 Virginia Pk., Detroit 2
Ettinger, Clayton J. (L).....18734 Woodward Ave., Highland Park
Evans, E. Warren.....4239 Pasadena, Detroit 38
Evans, Gomer P., Jr.....1553 Woodward Ave., Detroit 26
Evans, Jos. M.....16431 Harper, Detroit 24
Evans, Leland S.....16545 Trinity, Detroit 19
Evison, Emerson O.....14489 Chelsea, Detroit 13
Ewing, Chas. H.....17120 E. Warren, Detroit 24
Eyler, Wm. R.....2799 W. Grand Blvd., Detroit 2
Eyres, Alfred E.....3011 W. Grand Blvd., Detroit 2
Fachnie, Harold L.....4741 Spokane Ave., Detroit 4
Faello, Sebastian J.....16840 E. Warren Ave., Detroit 24
Fagin, Irving D.....18254 Livernois Ave., Detroit 21
Falick, Mordecai L.....3011 W. Grand Blvd., Detroit 2
Falk, Ira E.....17411 Cherrylawn, Detroit 21
Fallis, Lawrence S.....2799 W. Grand, Detroit 2
Fandrich, Theodore S.....3001 Grand Blvd., Detroit 2
Farbman, Aaron A.....14515 Kercheval, Detroit 15
Farmer, Wm. L., Jr.....8633 John R St., Detroit 2
Farnam, Larry M., Jr.....19787 Mack Ave., Detroit 36
Faunce, Sherman P.....1824 Seminole St., Detroit 14
Fea, John F.....6071 W. Outer Dr., Detroit 35
Feigelson, Howard H.....Sinai Hospital, Detroit 35
Felcyn, W. Geo.....2091 W. Grand Blvd., Detroit 8
Feld, David.....15101 W. McNichols Rd., Detroit 35
Feldkamp, Lee E.....585 Forest Ave., Plymouth
Feldman, Nathanial L.....24370 Tamarack Circle, Detroit 19
Feldman, Paul H.....16800 Greenfield, Detroit 35
Feldstein, Martin Z.....1109 Kales Bldg., Detroit 26
Fellers, Ray L. (L).....6505 Grand River Ave., Detroit 8
Fenech, Harold B.....10 Peterboro St., Detroit 1
Fenner, Wm. G.....12454 E. Outer Dr., Detroit 24
Fennessey, John F.....486 St. Clair Ave., Grosse Pointe 30
Fenton, Edwin H.....15125 Grand River Ave., Detroit 27
Fenton, Meryl M.....8600 W. McNichols Rd., Detroit 21
Fenton, Russell F.....15125 Grand River Ave., Detroit 27
Fenton, Stanley C.....5092 Yorkshire, Detroit 24
Fentress, Vance....1139 David Whitney Bldg., Detroit 26
Ferrara, Louis V.....13805 Park Grove, Detroit 5
Ferrara, Virginia M.....18422 Woodward, Detroit 3
Ferris, George N.....17555 James Couzens, Detroit 35
Ferszt, Marion.....18019 Rutherford, Detroit 35
Fettig, Carl A. (L).....1026 Harvard Rd., Grosse Pointe Park 30
Figiel, Leo S.....1940 Hawthorne, Dearborn
Figiel, Steven J.....4160 John R St., Detroit 1
Fill, Leon.....987 E. Jefferson, Detroit 7
Finch, Alvis D.....18000 Jas. Couzens Hwy., Detroit 35
Finch, F. Sinclair.....894 N. Renaud GPW, Detroit 36
Fine, Edward.....76 W. Adams Ave., Detroit 26
Fink, Samuel.....16601 Mendota, Detroit 21
Finkell, Lawrence J.....15231 W. Seven Mile Rd., Detroit 35
Finck, Jerome H.....25447 Plymouth Rd., Detroit 39
Finkelstein, Lionel....21415 W. Eight Mile Rd., Detroit
Finkelstein, M. B.....18254 Livernois, Detroit
Firnschild, Paul G.....2966 Biddle, Wyandotte
Fischer, Fredk. J.....10 Peterboro St., Detroit 1
Fischoff, Joe.....18674 Fairfield, Detroit 21
Fishbein, Herbert L.....987 E. Jefferson Ave., Detroit 7
Fisher, Geo. S.....1101 Whittier Ave., Grosse Point 30
Fisher, James M.....79 Kercheval Ave., Grosse Pointe 36
Fisher, Otto O. (L).....2475 Iroquois Ave., Detroit 14
Fisher, Ralph L.....8445 E. Jefferson Ave., Detroit 14
Fitzgerald, James M.....2536 W. Grand Blvd., Detroit 8
Fitzpatrick, F. W.....18520 Grand River, Detroit 23
Flaherty, Henry J.....19600 W. McNichols Rd., Detroit 19
Flaherty, Norman W.....24315 Fairmont Dr., Dearborn
Fleming, Jos. L.....7360 La Salle Blvd., Detroit 6
Flora, Wm. R.....8100 E. Jefferson Ave., Detroit 14
Flower, James A.....14140 Puritan Ave., Detroit 27
Fogt, Herbert E.....11801 Morang Dr., Detroit 24
Fogt, Robt. G.....11801 Morang Dr., Detroit 24
Foley, Hugh S.....22255 W. Michigan Ave., Dearborn
Font, Anthony J.....76 Adams Ave., Detroit 26
Ford, Geo. A. (L).....28 W. Adams Ave., Detroit 26
Fordell, Frank S.....441 S. Oakwood Ave., Detroit 17
Forgrave, Edward G.....18520 Grand River, Detroit 23
Forrer, Gordon R.....20141 James Couzens, Detroit 35
Fosnaugh, Robert P.....6214 Appoline, Dearborn
Foster, E. Bruce.....3001 W. Grand Blvd., Detroit 2
Foster, L. Fernald.....441 E. Jefferson St., Detroit 26
Foster, Owen C.....1553 Woodward Ave., Detroit 26
Foster, Wallace M.....13700 Woodward Ave., Higland Park 3
Fowler, Melvin E.....247 E. Warren St., Detroit 1
Fox, Morris E.....10 Peterboro St., Detroit 1
Fraiberg, Paul L.....13001 W. Chicago Blvd., Detroit 28
Frame, Boy.....1051 Covington Dr., Detroit 3
France, Chas. J.....76 W. Adams Ave., Grosse Pointe 30
Franjac, Marion J.....25447 Plymouth Rd., Detroit 28
Franzen, Nils A.....19566 W. Grand River, Detroit 23
Frazer, Mary M.....76 W. Adams Ave., Detroit 26
Frederickson, Geo. C.....1116 Maccabees Bldg., Detroit 2
Free, Harry W.....14300 W. McNichols, Detroit 35
Freedman, John.....4853 Second Blvd., Detroit 1
Freedman, Milton..18626 Santa Barbara Dr., Detroit 21
Freeman, Donald K.....881 Chalmers St., Detroit 15
Freeman, Mable.....10 Witherell, Detroit 26
Freeman, Michael W.....1810 Wellesley Dr., Detroit 3
Freeman, Wilmer.....18600 Muirland Ave., Detroit 21
Freid, Saml.....16850 Joy Rd., Detroit 28
Freier, Morton L.....13051 Puritan Ave., Detroit 27
Freitas, Eugene L.....22101 Moross Rd., Detroit 36
Fremont, J. Courtney..1553 Woodward Ave., Detroit 26
French, David M. (A).....1944 Ninth St. N.W. Washington 1, D. C.
Frenkel, Eugene P. (A)..University Hospital, Ann Arbor
Frey, James L.....1553 Woodward Ave., Detroit 26
Friedlaender, Alex S.....10300 W. Seven Mile Rd., Detroit 21
Friedlaender, Sidney.....10300 W. Seven Mile Rd., Detroit 21
Friedman, David....2429 E. Milwaukee Ave., Detroit 11
Friedman, Isidor H.....3773 2d Ave., Detroit 1
Friedman, Seymour.....5132 Allen Rd., Allen Park
Fritz, Geo. E.....80 Lochmoor Blvd. GPS, Detroit 36
Fryfogle, James D.....CD. & Med. Concourse, Detroit 35
Fulgenzi, Andrew A.....7445 Mack Ave., Detroit 14
Fuller, Hugh M.....1553 Woodward Ave., Detroit 26
Fulton, Harold E., Jr.....3825 Brush St., Detroit 1
Fulton, Wm. J.....3204 General Motors, Detroit 2
Gaffney, J. Mitchell.....13600 Ohio, Detroit 38
Gagliardi, Carl A.....3725 Fort St., Lincoln Park
Gagliardi, R. A.....15864 Rosemont Rd., Detroit 23
Gajewski, John E.....Parke, Davis and Co., Detroit 32
Galantowicz, H. C.....7433 Mich. Ave., Detroit 10
Galdonyi, Laslo....2311 D Broderick Tower, Detroit 26
Galdonyi, Nicholas....8001 W. Jefferson Ave., Detroit 17
Galerneau, Darrel B.....7394 Engleman, Centerline
Gall, Henry.....275 W. Grand Blvd., Detroit 16
Galvin, Paul P.....14440 W. McNichols, Detroit 35
Ganos, Thos.....6525 Park St., Allen Park
Ganschow, John H.....1840 Holbrook Ave., Detroit 12
Gardner, Lawrence W.....6071 W. Outer Dr., Detroit 35
Gardner, Max L.....19557 Mack Ave., Grosse Pointe
Gariepy, Louis B.....16401 Grand River St., Detroit 27
Gass, H. Harvey.....76 W. Adams, Detroit 26
Gaston, Herbert B.....7501 W. Morrow Circle, Dearborn
Gates, Nathaniel (L).....10 Peterboro St., Detroit 1
Gaynor, Alex (A).....18265 Warrington Dr., Detroit 21
Gehring, Harold W.....20211 Greenfield, Detroit 35
Geib, Ledru O. (L)....3528 Van Dyke Ave., Detroit 14
Geitz, Wm. A.....7234 E. Forest Ave., Detroit 14
Gelbach, Philip D.....15803 Rosemont Rd., Detroit 23
Gemeroy, Jos. C.....3011 W. Grand Blvd., Detroit 2
Gerisch, Robt. A.....1217 David Whitney, Detroit 26
Gerondale, Elmond J.....3001 W. Grand Blvd., Detroit 2
Gibson, Dunbar P.....1098 E. Grand Blvd., Detroit 7
Gibson, Wm.....7440 Mack Ave., Detroit 14
Giese, Fred W.....18526 Schoolcraft, Detroit 23
Gigante, Nicola.....10 Peterboro, Detroit 1

Gigliotti, David.....2500 W. Grand Blvd., Detroit 8
Gilbert, Harold R.....13146 Phelps, Wyandotte
Gillard, James L.....13300 Livernois St., Detroit 38
Gillespie, Stephen M.....1011 Haigh Ave., Dearborn
Gilpin, Watson A.....4560 Nicigara Lane, Birmingham
Gilreath, James L.....9041 Dexter, Detroit 6
Gimbel, Nicholas S.....1401 Rivard St., Detroit 7
Ginsberg, Harold I.....15344 McNichols Rd., Detroit 2
Gitlin, Chas.....15301 W. Nine Mile Rd., Oak Park 37
Gittins, Perry C.....20210 Renfrew Ave., Detroit 21
Givens, Donovan H.....3453 Charlevoix Ave., Detroit 7
Gizynski, Waldemar E.....15400 Edington Rd., Livonia
Glas, Wayne W.....Wayne County Gen'l Hosp., Eloise
Glasgow, Gordon K.....1170 Harvard Rd. G. P. P., Detroit 30
Glassman, Saml. (L).....60 W. Hancock Ave., Detroit 1
Glazer, Walter S.....8600 W. McNichols Rd., Detroit 21
Glees, John L.....317 Moran Rd. G. P. Farms, Detroit 36
Glemet, Raymond B.....3314 Bagley Ave., Detroit 16
Glowacki, Ben F.....5057 Woodward Ave., Detroit 2
Glowacki, Edward T.....5224 St. Antoine St., Detroit 2
Godley, Alegro J.....18060 Conant St., Detroit 34
Goerke, Elmer A.....36663 Goddard Rd., Romulus
Goetz, Angus G.....1553 Woodward Ave., Detroit 26
Goins, Wm. F.....6675 Tireman, Detroit 4
Goldberg, Arthur.....340 E. Eight Mile Rd., Detroit 3
Goldberg, Harry H.....2211 Woodward Ave., Detroit 1
Goldberg, Nathan H.....2211 Woodward Ave., Detroit 1
Golden, Alfred.....26764 York Rd., Huntington Woods
Goldfaden, Alfred.....6658 W. Fort St., Detroit 9
Goldin, Morris I.....5057 Woodward Ave., Detroit 2
Goldman, Aubrey.....19995 Renfrew Rd., Detroit 21
Goldman, Perry.....16805 Princeton, Detroit 21
Goldrath, Milton H.....569 Fisher Bldg., Detroit 2
Goldstein, Abe S.....18450 North Lawn, Detroit 21
Goldstein, Sidney....22140 Marlow Ave., Oak Park 37
Goldstone, Rubie R.....10 Peterboro, Detroit 1
Gollman, Maurice D.....5057 Woodward Ave., Detroit 2
Gomley, Romuald H.....7220 Gratiot Ave., Detroit 13
Gonne, Wm. S.....18903 Fairfield Ave., Detroit 21
Goodman, Maxwell M...13610 Michigan Ave., Dearborn
Goodman, Virgil P.....762 Bedford Rd., Grosse Pte. Pk.
Goodwin, Warren W.....20131 James Couzens Hwy., Detroit 35
Gordon, John W. (R).....12700 Mendota Ave., Detroit 4
Gordon, Wm. E.....18058 Greenfield, Detroit 35
Gorelick, Martin J.....23901 Michigan Ave., Dearborn
Gorning, Raymond P.....857 Marlborough Ave., Detroit 15
Goryl, Stephen V.....9953 E. Forest Ave., Detroit 14
Goss, Saml. B.....17166 Roselawn, Detroit 21
Gostine, Edmond J.....9758 Chalmers, Detroit 5
Gottlieb, Jacques S.....951 E. Lafayette, Detroit 7
Gottschalk, Fred W.....5057 Woodward Ave., Detroit 2
Goudie, Fredk. D.....27210 Eldorado L. V., Birmingham
Gould, Sylvester E.....Wayne Co. Gen. Hosp., Eloise
Goux, Raymond S.....17566 Muirland Ave., Detroit 21
Grace, Jos. M.....27453 Rainbow Circle, Lathrup Village
Grady, Jos. A.....946 Three Mile Dr., Detroit 30
Grafflin, Allan L. (A).....Henry Ford Hospital, Detroit
Graham, John G., Jr...491 Lincoln Rd., Grosse Pointe 30
Graham, Julius A.....4102 Brush St., Detroit 1
Grain, Gerald O.....17556 Oak Dr., Detroit 21
Grajewski, Leo E.....2201 E. Jefferson Ave., Detroit 7
Gramley, Wm. (L).....10575 Morang Dr., Detroit 24
Granger, Francis L.....14160 Gratiot Ave., Detroit 5
Granger, George R.....705 David Whitney Bldg., Detroit 26
Grant, Abraham H.....18024 Sorrento, Detroit 35
Grant, Heman E. (L).....Lewiston
Gratton, Henri L. (L)....76 W. Adams Ave., Detroit 26
Graves, James H.....17007 Kercheval, Detroit 30
Gray, Howard O.....1308 Broadway, Detroit 26
Gray, Jacques P.....8900 E. Jefferson Ave., Detroit 14
Greek, Louis M.....12901 E. McNichols, Detroit 5
Green, Edward W.....2799 W. Grand Blvd., Detroit 2
Green, Ellis R.....5172 Scotten Ave., Detroit 10
Green, Lewis.....13000 Grand River, Detroit 27
Green, Louis M.....14636 E. 7 Mile Rd., Detroit 5
Green, Nelson W.....15800 W. McNichols, Detroit 35
Greenberg, Jack R.....15821 W. 7 Mile Rd., Detroit 35
Greenberg, Julius J.....7441 W. Seven Mile Rd., Detroit 21
Greenberg, Morris Z.....9105 Van Dyke, Detroit 13
Greenberg, Stanley.....3919 John R. St., Detroit 1
Greene, John B.....2179 W. Grand Blvd., Detroit 8
Greene, Thos. J.....2425 W. Boston Blvd., Detroit 6
Greenidge, Robt. I.....4839 Beaubien St., Detroit 1
Greenlee, Wm. T.....15053 Maddelein, Detroit 5
Greenslit, Frank S.....U. S. Vets Admin. Hosp., Dearborn
Gregory, Louis J.....15220 Collingham, Detroit 5
Greifenstein, F. E.....1401 Rivard, Detroit 7
Greiner, Bert A.....12410 Van Dyke Ave., Detroit 34
Grekin, John N.....7421 W. Seven Mile Rd., Detroit 21
Grier, Wm. H.....2200 W. Boston Blvd., Detroit
Griffin, Robert J.....4900 Cadieux, Detroit 24
Griffiths, Sydney J.....15400 Plymouth Rd., Detroit 27
Grimaldi, Gregory J.....1071 E. Grand Blvd., Detroit 7
Grinstein, Alexander..18466 Wildemere Ave., Detroit 21
Grishkoff, M. A.....Henry Ford Hosp., Detroit 2
Grob, Otto.....7385 Parkstone Lane, Birmingham
Gross, Louis.....18937 Van Dyke St., Detroit 34
Grossman, Solomon C.....5057 Woodward Ave., Detroit 2
Guerrero, Jose..13700 Woodward Ave., Highland Park 3
Guidot, Julian M.....16401 Grand River, Detroit
Guimaraes, Abilio.....7301 Schaffer Hwy., Dearborn
Gulick, Arthur E.....543 Deer St., Plymouth
Gurdjian, Elisha S.....1553 Woodward Ave., Detroit 26
Gurskis, Eugenia E.....76 W. Adams Ave., Detroit 26
Gutow, Benjamin R.....7441 W. 7 Mile Rd., Detroit 21
Guyton, Jack S.....2799 W. Grand Blvd., Detroit 2
Hacker, Elaine M.....760 Fisher Bldg., Detroit 2
Hackert, John L.....2900 S. Fort St., Detroit 17
Hackleman, G. L. (A).....Pitsanuloke Rd., Bangkok, Thailand
Haddad, Benjamin F.....1010 Mich. Mutual Bldg., Detroit 26
Hadesman, Donald.....985 E. Jefferson, Detroit 7
Haefele, Leslie P.....29108 Ford Rd., Garden City
Hagge, Donald R.....1553 Woodward Ave., Detroit 26
Hague, Gilbert W.....1116 Maccabees Bldg., Detroit 2
Haidostian, Benj. H.....18456 Grand River, Detroit 23
Haisten, Maurice W.....Henry Ford Hosp., Detroit 2
Haitinger, K. S.....327 Professional Bldg., Detroit 1
Haking, Leonard.....14014 E. 7 Mile Rd., Detroit 5
Hale, Arthur S.....1553 Woodward Ave., Detroit 26
Halekas, G. Peter.....19685 Fenelon St., Detroit 34
Hall, Arch H.....10 Peterboro, Detroit 1
Hall, E. Walter.....19210 Bretton Dr., Detroit 23
Hall, James A. J.....76 W. Adams St., Detroit 26
Hall, Ralph E.....10 Peterboro St., Detroit 1
Hall, Robt. J.....6014 W. Fort St., Detroit 9
Hall, Winthrop D.....Ford Motor Co., Box 2066, Livonia
Hallen, Leonard J.....14032 Ohio, Detroit 38
Hamada, Norman K.....315 Snell Rd., R. 2, Rochester
Hamburg, Robt. H.....17317 Chapel Ave., Detroit 19
Hamburger, Joel I.....16650 James Couzens Hwy., Detroit 21
Hamburger, Stuart W.....16650 James Couzens Hwy., Detroit 21
Hamil, Brenton M.....2799 W. Grand Blvd., Detroit 2
Hamilton, Norman C.....300 W. McNichols Rd., Detroit 3
Hamilton, Quentin P.....Medical Arts Bldg., Detroit 3
Hamilton, Wm. F. (L)....234 E. Grand Blvd., Detroit 7
Hammer, Edwin J.....16616 Mack Ave., Detroit 24
Hammer, Roy W.....16620 E. Warren, Detroit 24
Hammond, Arthur E...1553 Woodward Ave., Detroit 26
Hammond, James L. (L).....1911 Sunset Dr., Escondido, Calif.
Hand, Fordus V.....81 E. Kirby St., Detroit 2
Handel, Jack E.....1800 Tuxedo, Detroit 6
Hank, Emil J.....29156 Jaquelyn Dr., Livonia
Hansen, Fredk. E.....120 Glynn Ct., Detroit 2
Hanvi, Karl.....1771 Ackley, Wayne
Hardstaff, Roy J. (L).....Point Edward, Ontario, Can.

Hardt, Barbara A...Chrysler Corp., Lynch Rd., Detroit 5
Harelik, Ely W.....15201 W. McNichols, Detroot 35
Harkaway, Roman W.....19125 Van Dyke, Detroit 34
Harley, Garth H.....21831 Willoway Rd., Dearborn
Harley, Louis M.....4100 W. McNichols Rd., Detroit 21
Harm, Winfred B.....16260 Cherrylawn Ave., Detroit 21
Harmon, Walter J.....2510 E. Davison, Detroit 12
Harper, Jesse T.....1553 Woodward Ave., Detroit 26
Harrell, Voss.....1035 Oakwood Ave., Dearborn 7
Harrington, F. L.....8935 Fenkell, Detroit 21
Harris, A. D.....6675 Tireman, Detroit 4
Harris, Harold H.....8011 W. Vernor Hwy., Detroit 9
Harris, Ivor D.....1553 Woodward Ave., Detroit 26
Harris, LeRoy C., Jr. (M).....1115 A. Kimbro Loop, Fort Belvoir, Va.
Harrison, Wesley.....4847 Iroquis Ave., Detroit 14
Hart, Charles E.....23845 Van Dyke, Centerline
Hart, John C.....9341 Moffat, Detroit 13
Harten, James N.....25750 W. Outer Dr., Lincoln Park
Hartkop, Henry H.....20055 Mack Ave., Detroit 36
Hartquist, Robt. J.....1495 Fort St., Wyandotte
Hartzell, John B.....7815 Jefferson Ave. E., Detroit 14
Hasley, Clyde K.....1553 Woodard Ave., Detroit 26
Hasley, Danl. E.....1401 Rivard, Detroit 7
Hassig, Walter W...161 Stephens Rd., G.P.F., Detroit 36
Hastings, Orville J.....15744 Harper Ave., Detroit 24
Haszczyc, Vladimir A.....Industrial Hosp., Detroit 7
Hathaway, Hubert R.....230 Madison Ave., Detroit 26
Haubrich, Wm. S.....Henry Ford Hosp., Detroit 2
Hauf, Mary A.....5251 Chalmers, Detroit 13
Hause, Glen E.....18520 Grand River, Detroit 23
Hauser, I. Jerome.....7411 Third Ave., Detroit 2
Hauser, John E.....3001 W. Grand Blvd., Detroit 2
Hauser, Maurice J. (A).....7411 Third Ave., Detroit 2
Hauss, Robert B.....7348 Kercheval, Detroit 14
Havers, Howard.....5057 Woodward Ave., Detroit 2
Hawkins, James W.....14237 Greenfield Rd., Detroit 27
Hazen, Roy S.....20526 Grand River Ave., Detroit 19
Heath, Leonard P.....1553 Woodward Ave., Detroit 26
Heavner, Lyle E.....228 Piper Blvd., Detroit 15
Hecht, Manes S.....25622 Coolidge Hwy., Huntington Woods
Hedgeman, E. Chester.....3423 Hastings. Detroit 1
Heenan, Theophilus H.....1553 Woodward Ave., Detroit 26
Heideman, Louis E.....20211 Greenfield Rd., Detroit 35
Heldt, Richard F.....18491 Ardmore, Detroit 35
Heldt, Thos. J. (L).....2799 W. Grand Blvd., Detroit 2
Hellems, Harper K.....319 Moross Pl., Detroit 36
Hendelman, Manuel H.....14350 Harper Ave., Detroit 13
Henderson, Allison B.....9041 Dexter Blvd., Detroit 6
Henderson, Arthur B.....10452 Mack Ave., Detroit 14
Henderson, Chas. W.....3001 W. Grand Blvd., Detroit 2
Henderson, Harold....3011 W. Grand Blvd., Detroit 2
Henderson, Hugh W.....17830 E. Warren, Detroit 24
Henderson, Leslie T.....14814 E. Warren, Detroit 15
Henderson, Wm. E.....9341 Chalmers, Detroit 13
Henig, Fred N.....7605 W. Seven Mile Rd., Detroit 21
Henkin, Raymond.....13725 W. Eight Mile Rd., Detroit 35
Henkin, Wm. A.....19209 Mendota, Detroit 21
Henrich, Laurence E.....2501 W. Grand Blvd., Detroit 8
Henry, Robert C.....16127 Baylis, Detroit 21
Herbst, Harold B.....27330 Southfield Rd., Lathrup Village
Herrold, Rose E.....1277 E. Grand Blvd., Detroit 11
Herschelmann, Roy F.....3343 Gratiot Ave., Detroit 7
Hertzler, Jack H.....3011 W. Grand Blvd., Detroit 2
Herwick, John T.....2799 W. Grand Blvd., Detroit 2
Hess, Murray W.....23860 Seneca, Oak Park 37
Heyman, Louis F.....19009 W. Seven Mile Rd., Detroit 19
Heyner, Stanley A.....3424 Oakman Blvd., Detroit 4
Hickey, Jos.....6004 W. Fort St., Detroit 9
Hicks, Fredk. G.....1000 Westwood, Birmingham
Higbee, Arthur L.....429 E. Grand Blvd., Detroit 7
Hileman, S. Lee.....4045 W. Jefferson Ave., Ecorse 29
Hill, Edward J., Jr.....1553 Woodward Ave., Detroit 26
Hill, Gerald (M).....No address
Hill, Welford F.....6303 Mack Ave., Detroit 7
Hillenberg, Sidney J.....19350 W. 7 Mile Rd., Detroit 19
Hillenbrand, A. E.....15850 E. Warren, Detroit 24
Hiller, Glenn I.....288 Elmhurst, Highland Park 3
Hiller, Herbert M.....1057 Covington Dr., Detroit 3
Hillier, Leland G.....18750 Woodward Ave., Detroit 3
Hillyer, John W.....26151 Huron River Dr., Flat Rock
Hilton, Wm. E.....5013 Harding, Detroit 13
Hipps, Chauncey J.....2605 W. Grand Blvd., Detroit 8
Hiratzka, Tomiharu.....1401 Rivard, Detroit 7
Hirsch, Lore.....212 S. Melborn, Dearborn
Hirschfeld, A. H.....829 Fisher Bldg., Detroit
Hirschman, Louis J. (L).....2619 Munson Ave., Traverse City
Hirt, Harry.....18975 Cherrylawn, Detroit 21
Hoagland, F. L. (A)....1260 E. Grand Blvd., Detroit 11
Hoagland, Thos. V.....81 E. Kirby, Detroit 2
Hobbs, Donald Y.....27305 Southfield Rd., Lathrup Village
Hochman, Morton M.....16633 Plymouth Rd., Detroit 27
Hodges, Jason.....10829 E. Jefferson Ave., Detroit 14
Hodgkinson, Chas. P.....17546 Meadwood Ave., Birmingham
Hoffer, Thos.....5825 Allen Rd., Allen Park
Hoffman, Ben G.....300 W. McNichols Rd., Detroit 3
Hoffman, Edward A.....10125 Tireman St., Dearborn
Hoffman, Edwin S.....14877 Warwick Rd., Detroit 23
Hoffman, Harry Y...15085 E. Seven Mile Rd., Detroit 5
Hoffman, Henry A.....10015 E. Outer Dr., Detroit 24
Hoffman, Louis.....18203 Birchcrest Dr., Detroit 21
Hoffman, Milton C.....18555 E. Warren, Detroit 36
Hoffmann, Martin H...1553 Woodward Ave., Detroit 26
Hogikyan, Azat....16901 W. McNichols Rd., Detroit 35
Holdredge, Jean M.....3011 W. Grand Blvd., Detroit 2
Hollander, Abraham J...8026 Michigan Ave., Detroit 10
Hollinger, F. Wayne.....2799 Grand Blvd., Detroit 2
Hollis, Henry B.....6821 Sarena, Detroit 10
Holloway, Janet L.....5057 Woodward Ave., Detroit 2
Holmes, Geo. F.....12170 Fort St., Wyandotte
Holt, Chas. J., Jr.....1575 Faircourt, Grosse Pointe 36
Holt, Henry T.....5050 Cass St., Detroit 2
Honhart, Fred L. (L).....1405 Berkshire Rd., Grosse Pointe 30
Hooker, Lyle T.....35550 Michigan Ave., Wayne
Hookey, John A.....2918 Biddle Ave., Wyandotte
Hoops, Geo. B. (L)....3001 W. Grand Blvd., Detroit 2
Hopkins, Andrew J.....10149 Michigan Ave., Dearborn
Hopkins. Scovell M.....5057 Woodward Ave., Detroit 2
Hopkins, Wm. J.....2799 W. Grand Blvd., Detroit 2
Horkins, Earl J.....21705 W. McNichols Rd., Detroit 19
Horkins, Harold A.....893 Lakewood. Detroit 15
Horn, Robt. C., Jr.....2799 W. Grand Blvd., Detroit 2
Horny, Hugo O...619 Barrington Rd., G.P.P., Detroit 30
Horton, Reece H.....1553 Woodward Ave., Detroit 26
Horvath, James J.....1553 Woodward Ave., Detroit 26
Hotchkiss, Loris M.....33220 W. 7 Mile, Livonia
Howard, Austin Z.....1553 Woodward Ave., Detroit 26
Howard. Philip J.....19501 Cumberland, Detroit 3
Howell, Bert F.....10800 Whittier Rd., Detroit 24
Howell, James T.....2799 W. Grand Blvd., Detroit 2
Howell, Reginald S. (A)..Northville S. Hosp., Northville
Howes, Homer A.....9322 Artesian, Detroit 28
Howes, Willard B.....4404 Samosot Rd.. Royal Oak
Howlett, Howard T.....3011 W. Grand Blvd., Detroit 2
Hranchook, Michael.....5042 Haverhill, Detroit 24
Hromadko, Louis.....3011 W. Grand Blvd., Detroit 2
Hubbard, John P., Jr.....14620 E. Seven Mile Rd., Detroit 5
Huber, Philip J.....1724 Bassett, Royal Oak
Hudson, J. Stewart.....17443 E. Jefferson Ave., Grosse Pointe 30
Hudson, Wm. A.....1553 Woodward Ave., Detroit 26
Hudspeth, E. Rae.....753 Fisher Bldg., Detroit 2
Huegli, Wilfred A.....16840 E. Warren Ave., Detroit 24
Hulick, Archie G.....15525 Amherst Rd., Birmingham
Hull, Leroy W. (L)....20115 Canterbury Rd., Detroit 21

Hume, H. Ross, Jr.....1553 Woodward, Detroit 26
Huminski, Thaddeus S.....19244 Van Dyke Ave., Detroit 34
Hummel, Arthur R...1020 3 Mile Dr., Grosse Pointe 30
Hunt, Theodore H.....19431 Van Dyke Ave., Detroit 34
Hunt, Verne G.....1553 Woodward Ave., Detroit 26
Husband, Chas. W. (L).....3810 Northwestern Ave., Detroit 6
Husband, Raymond C.....3810 Northwestern, Detroit 6
Hutchins, M. Colton....3011 W. Grand Blvd., Detroit 2
Hyatt, Jarvis M.....22340 Michigan Ave., Dearborn
Hyde, Fredk. W., Jr.....14255 Faust Ave., Detroit 23
Hyland, John R.....13030 Mack Rd., Detroit 15
Hyman, Saml. J.....27342 Michigan Ave., Inkster
Hysni, Aliqemal.....8034 W. Vernon Hwy., Detroit
Iacobell, Peter H.....19300 Van Dyke, Detroit 34
Ice, Garnett T.....18060 Conant, Detroit 34
Igna, Eli J.....2799 W. Grand Blvd., Detroit 2
Irvin, Earle A.....3000 Schaefer Rd., Dearborn
Irwin, Wm. A.....2500 W. Grand Blvd., Detroit 8
Iseri, Lloyd T. (M).....1401 Rivard St., Detroit 7
Israel, Barney B.....5057 Woodward Ave., Detroit 2
Israel, J. Gilbert.....5057 Woodward Ave., Detroit 2
Israel, Kenneth.....5057 Woodward Ave., Detroit 2
Iwata, Herbert T.....7611 Patton Ave., Detroit 28
Izner, Sanford M.....17500 Schaefer Hwy., Detroit 35
Jacobs, Arnold.....18671 Plymouth Rd., Livonia
Jacobson, Lyle F.....14123 Riverview, Detroit 23
Jacobson, Saml. D.....Wayne Co. Gen. Hosp., Eloise
Jacobus, Wayne N.....21535 Kingsville Dr. H.W., Detroit 36
Jaeger, Grove A.....11711 Minden, Detroit 5
Jaekel, Clarence N.....1086 E. Grand Blvd., Detroit 7
Jaffar, Donald J.....5057 Woodward Ave., Detroit 2
Jaffe, Harold W...1536 David Whitney Bldg., Detroit 26
Jaffe, Jacob.....2211 Woodward Ave., Detroit 1
Jaffe, Julius L.....7463 Harper Ave., Detroit 13
Jaffe, Louis.....18662 Muirland, Detroit 21
Jahsman, Wm. E.....2799 W. Grand Blvd., Detroit 2
Jamieson, Thos. J.....1310 Warwick, Lincoln Park
Janicki, Natalia J.....Eloise Hosp., Eloise
Jarre, Hans A.....4160 John R St., Detroit 1
Jarsen, Frank J.....817 Beechmont St., Dearborn
Jarvis, Harold F.....14066 Linnhurst, Detroit 5
Jaynes, Richard V.....29901 Ford Rd., Garden City
Jeffries, Benj.....16321 Mack Ave., Detroit 24
Jend, Wm., Jr.....1365 Cass Ave., Detroit 26
Jend, Wm. J. (L).....3598 Mitchell Ave., Detroit 17
Jenkins, Elwood A.....76 W. Adams St., Detroit 26
Jenkins, Sidney B. (M)....2617 W. Grand Blvd., Detroit 8
Jennings, Chas. G.....14827 E. Jefferson, Detroit 15
Jennings, Elmer R.....423 E. Hancock, Detroit 1
Jensen, Viggo W.....532 Lincoln Rd. G.P., Detroit 30
Jentgen, Chas. J. (L).....22101 Moross Rd., Detroit 36
Jeremias, Robt. C.....90 Moss Ave., Highland Park 3
Jewell, F. C.....159 Kercheval Ave. G.P., Detroit 36
Jewell, John S.....751 S. Military St., Dearborn
Jocz, Marion W.....945 Trombley Rd. G.P.P., Detroit 30
Jodar, Emery O.....15760 Mack Ave., Detroit 24
Jodar, Loyal W. (A).....21741 Edmunton Dr., St. Clair Shores
John, Hubert R.....5057 Woodward Ave., Detroit 2
Johnson, Aran S.....23106 Edsel Ford, St. Clair Shores
Johnson, David S.....536 Vinewood, Birmingham
Johnson, Homer L.....2799 W. Grand Blvd., Detroit 2
Johnson, John F.....1401 Rivard, Detroit 7
Johnson, Ralph A.....7815 E. Jefferson Ave., Detroit 14
Johnson, Thos. D.....20526 Grand River, Detroit 19
Johnson, Verne E.....2051 Monroe Ave., Dearborn
Johnson, Vernon P...21327 Harper Ave., St. Clair Shores
Johnson, Vincent C.....345 Lodge Dr., Detroit 14
Johnson, Wilbur E...13626 E. Seven Mile Rd., Detroit 5
Johnson, Wm. H. M.....4936 Cecil Ave., Detroit 10
Johnston, Chas. G.....1401 Rivard St., Detroit 7
Johnston, Everett V.....3919 John R St., Detroit 1
Johnston, John L. (A).....1950 W. McNichols Rd., Detroit 3
Johnston, Jos. A.....2799 W. Grand Blvd., Detroit 2
Johnston, Thomas C.....1314 David Whitney Bldg., Detroit 26
Johnston, Wm. E.....3011 W. Grand Blvd., Detroit 2
Johnstone, Benj. I.....18506 Parkside, Detroit 21
Joinville, Euclide V. (L).....28 W. Adams, Detroit 26
Jones, Adrian R.....15309 Mack Ave., Detroit 24
Jones, Roy D.....10234 Puritan Ave., Detroit 38
Jones, Wm. J.....8209 Allen Rd., Allen Park
Joos, Thad H.....20861 Mack, Grosse Pte. Woods
Jordan, Prescott, Jr.....645 Mullett St., Detroit 26
Joyce, Stanley J.....3011 W. Grand Blvd., Detroit 2
Juliar, Benj.....17305 Muirland Ave., Detroit 21
Jury, Donald B.....18800 Woodward Ave., Detroit 3
Kackley, James E.....18514 Mack Ave., Detroit 36
Kaine, Henry D.....3011 W. Grand Blvd., Detroit 2
Kalayjian, Bernard S...14195 Long Acre Rd., Detroit 27
Kalichman, Nathan.....5057 Woodward Ave., Detroit 2
Kallenbach, Rudolf W.....985 Sunningdale Dr., Inkster
Kallet, Herbert I.....5057 Woodward Ave., Detroit 2
Kallet, Maerit B.....8620 W. McNichols, Detroit 21
Kallman, David.....5725 Cass Ave., Detroit 2
Kallman, Leo.....5725 Cass Ave., Detroit 2
Kallman, Reuben R.....2631 Woodward Ave., Detroit 1
Kamil, Richard S.....12901 W. 7 Mile Rd., Detroit 21
Kaminski, Zeno L. (L).....3510 24th St., Detroit 8
Kamperman, George A. (L)..1807 David Whitney Bldg., Detroit 26
Kane, Archibald V.....2500 W. Grand Blvd., Detroit 8
Kansa, Selma.....19431 Van Dyke, Detroit 34
Kanter, Herman....13127 W. Seven Mile Rd., Detroit 35
Kapetansky, A. J.....1728 Clairmount, Detroit 6
Kapetansky, Nathan J.....4505 Livernois, Detroit 10
Kaplita, Walter A...60 Fontana Lane, Grosse Pte. Shores
Karch, Saul.....18080 Muirland, Detroit 21
Kasabach, Harry Y.....1553 Woodward Ave., Detroit 26
Kasabach, Vahram Y.....1249 Washington Blvd., Detroit 26
Kashtan, Harry A.....17300 Schaefer, Detroit 35
Kasper, Jos. A...1428 Buckingham Rd. G.P.P., Detroit 30
Kaspor, Albert J.....20901 Moross Road, Detroit 36
Kass, Arnold.....1150 Griswold St., Detroit 26
Katz, Lawrence.....987 E. Jefferson, Detroit 7
Katzman, Irving S.....2211 Woodward Ave., Detroit 1
Kaufman, Jacob M.....19757 Monte Vista, Detroit 21
Kaufman, Louis W.....19467 Livernois, Detroit 21
Kaump, Donald H.....2500 W. Grand Blvd., Detroit 8
Kauppinen, Jalo A.....15400 Plymouth Road, Detroit 27
Kawchak, James.....Ford Motor Co., Dearborn
Kawecki, Lucian.....10734 Hart Ave., Huntington Woods
Kawel, Conrad A., Jr.....25701 Joy Rd., Dearborn
Kazdan, Morris.....4619 Allen Rd., Allen Park
Keating, Thos. F. (L).....20936 W. Grand River Ave., Detroit 19
Kehoe, Henry J.....15252 Gratiot Ave., Detroit 5
Keim, Harther L.....10 Witherell St., Detroit 26
Keith, Kelly.....106 W. Davison Ave., Highland Park 3
Keith, Rachel H. C. B.....1544 Virginia Pk., Detroit 6
Kelley, Frank J.....3919 John R St., Detroit 1
Kelly, Edward W., Jr.....156 Harmon St., Detroit 2
Kelly, John J.....21124 Goddard Rd., Dearborn
Kelly, L. J.....14015 Gratiot, Detroit 5
Kelmenson, Victor A.....2035 Glynn Ct., Detroit 6
Kelson, Malcolm J.....1045 Harvard G.P.P., Detroit 30
Kemler, Walter J.....4045 W. Jefferson Ave., Ecorse 29
Kennary, James M.....4900 Cadieux Rd., Detroit 24
Kennedy, Chas. S. (L).....10 Peterboro St., Detroit 1
Kennedy, Donald J.....1220 Livernois Ave., Detroit 9
Kenning, John C. (A).....136 S. Lapeer Dr., Beverly Hills, Calif.
Kennison, Warren S.....15800 W. McNichols Rd., Detroit 35
Kernick, Melvin O.....13700 Woodward Ave., Highland Park 3
Kernkamp, Ralph F.....10 Witherall St., Detroit 26
Kerstein, Werner (A).....No address
Kerzman, Jos. H.....16631 Woodingham, Detroit 21
Keshishian, Sarkis K. (L).....13544 Woodward Ave., Highland Park

Kessler, Chas.....15105 W. Seven Mile Rd., Detroit 35
Keyes, Eugene C.....4840 Maple Ave., Dearborn
Keyes, John W.....2799 W. Grand Blvd., Detroit 2
Kieffer, Earl.....4490 Dean, Wayne
Killins, Chas. G.....8100 E. Jefferson, Detroit 14
Kimberlin, K. K., Jr.....11110 Morang Dr., Detroit 24
King, Edward D.....270 Rivard Blvd., Grosse Pte. 30
King, Melbourne J.....16021 Warwick Rd., Detroit 23
Kingsley, Joyce W., Jr.....18801 Ten Mile Rd., Roseville
Kingswood, Roy C.....90 E. Warren Ave., Detroit 1
Kinsley, Geo.....15105 W. Seven Mile Rd., Detroit 35
Kirschbaum, Harry (A).....19255 Canterbury Rd., Detroit 21
Kirtland, Wm. B., Jr. 2201 E. Jefferson, Detroit 7
Kish, Elvina A.....Henry Ford Hosp., Detroit 2
Kitzmiller, John L.....15800 W. McNichols Ave., Detroit 35
Klein, Herman.....24030 Marlow St., Oak Park
Klein, Howard A.....1553 Woodward, Detroit 26
Klein, Sander P.....20409 Cheyenne, Detroit 35
Klein, Wm.....1795 Oakman Blvd., Detroit
Kliger, David.....18438 Hartwell Ave., Detroit 35
Klimchuk, M. M.....18412 Mack Ave., Detroit 36
Klokke, Karl.....12200 E. Jefferson, Detroit
Klosowski, Jos.....8222 E. Outer Dr., Detroit 13
Klutke, Geo. H. E.....22159 W. Outer Dr., Dearborn
Knaggs, Chas W. (L).....12244 Gratiot Ave., Detroit 5
Knaggs, Earl J.....3164 Biddle Ave., Wyandotte
Knapp, Byron S.....10909 Jefferson Ave., River Rouge 18
Knapp, Floyd B. (R).....16565 Birwood, Detroit 27
Knapp, Gordon R.....422 W. Goldengate, Detroit 3
Knapp, Wm. L.....106 W. Davision, Highland Park 3
Knobloch, Edmund J.....5933 Chene St., Detroit 11
Knoch, Hubert S.....14149 E. Jefferson Ave., Detroit 15
Knox, Ross M.....9 Salliotte Rd., Ecorse 29
Kobernick, Sidney D.....6767 W. Outer Dr., Detroit 35
Koebel, Raymond H.....640 Bedford Lane, Grosse Pointe 30
Koerber, Edward J.....4876 Lakeview Ave., Detroit 15
Kogut, Constantine S.....10627 Puritan, Detroit 38
Kokowicz, Raymond J.....19440 Van Dyke, Detroit 34
Kolman, Isadore I.....987 E. Jefferson Ave., Detroit 17
Koos, Laszlo (M).....20532 W. Chicago, Detroit 28
Kopel, Jos. O.....10 Peterboro St., Detroit 1
Koran, Valentine L.....5057 Woodward Ave., Detroit 2
Koren, Louis.....1214 Griswold St., Detroit 26
Korum, Lyle W.....18585 E. Warren St., Detroit 36
Koschnitzke, H. K.....1221 Lincoln, Lincoln Park
Kossayda, Adam W.....15324 Michigan Ave., Dearborn
Kovach, Emery P.....14149 E. Jefferson St., Detroit 15
Kovan, Dennis D.....16965 Hamilton Ave., Highland Park 3
Kowaleski, John J.....9646 Vine, Allen Park
Kozlinski, Anthony E.....2195 E. Grand Blvd., Detroit 11
Krabbenhoft, K. L.....3825 Brush St., Detroit 1
Kraft, Raymond B.....8531 E. Outer Dr., Detroit 15
Kraft, Ruth M.....655 Hamilton Rd., Birmingham
Krakauer, Bernard..18424 W. McNichols Rd., Detroit 19
Krass, Edward W.....11088 Gratiot Ave., Detroit 5
Kraus, John J.....16840 E. Warren Ave., Detroit 24
Krebs, Wm. T.....16419 E. Warren Ave., Detroit 24
Kreinbring, Geo. E.....4229 Mt. Elliott St., Detroit 7
Krenz, Marlin P. (M)....5010th USAF Hosp., APO 937, c/o Postmaster, Seattle, Wash.
Kretzschmar, John C.....535 E. Grand Blvd., Detroit 7
Krevsky, David A.....8461 Park, Allen Park
Krevsky, Harold.....8461 Park Ave., Allen Park
Krieg, Earl G.....1553 Woodward Ave., Detroit 26
Krieger, Harley L.....11390 Strathmoor, Detroit 27
Krieger, Ingeborg.....987 E. Jefferson, Detroit 7
Kritchman, Maurice J.....10 Witherell St., Detroit 26
Kroha, Lawrence A.....15124 Kercheval Ave., Detroit 30
Kroll, H. Harvey V.....7815 E. Jefferson, Detroit 14
Krynicki, Francis X.....15300 W. McNichols Rd., Detroit 35
Krystal, Henry.....14833 Terry, Detroit 27
Kubanek, Jos. L.....23134 Myrtle, Dearborn
Kucmierz, Francis S.....12181 Joseph Campau St., Detroit 12
Kuehn, Ned N.....20243 Burgess Ave., Detroit 19
Kuhel, Eli H.....470 Fisher Bldg., Detroit 2
Kuhn, Albert A,.....90 E. Warren Ave., Detroit 1
Kuhn, Richard F.....1700 Junction Ave., Detroit 9
Kujawski, Walter F.....16840 E. Warren, Detroit
Kulaski, Chester H.....9309 Joseph Campau, Detroit 12
Kullman, Harold J.....Vet. Admin. Hosp., Dearborn
Kurcz, Jos. A.....7433 Michigan Ave., Detroit 10
Kurtz, Irvin J.....2211 Woodward Ave., Detroit 1
Kutsche, John D.....2057 W. Jefferson, Trenton
Kwasiborski, S. A.....2300 Oak St., Wyandotte
Kyle, Wm. V., Jr. (A).....No address
Kyprie, H. M.....76 W. Adams Ave., Detroit 26
LaBerge, James M.....100 Oak, Wyandotte
LaBine, Alfred C.....3044 W. Grand Blvd., Detroit 2
Lackey, Lawrence S.....525 Visger, Ecorse
Laderach, David C.....1553 Woodward Ave., Detroit 26
La Ferte, Alfred D. (L).....1553 Woodward Ave., Detroit 26
LaHood, Michael J.....17555 Jas. Couzens Hwy., Detroit 35
Laige, Raymond J.....7900 Jos. Compau, Detroit 11
Lake, Robt. C.....8445 E. Jefferson, Detroit 14
Lakoff, Charles B...10234 W. Seven Mile Rd., Detroit 21
Lam, Conrad R.....28130 Westbrook Ct., Farmington
Lamberson, Frank A.....19001 Grand River, Detroit 23
Lammy, James V.....5057 Woodward Ave., Detroit 2
Lampman, Harold H.....3011 W. Grand Blvd., Detroit 2
Landers, Maurice B.....275 W. Grand Blvd., Detroit 16
Lang, Ernst F.....280 Cloverly Rd. G.P.F., Detroit 36
Lange, Wm. A.....3919 John R St., Detroit 1
Langston, John D.....1420 St. Antoine St., Detroit 26
Laning, Geo. M. (L)....1553 Woodward Ave., Detroit 26
Lansky, Mandell.....14427 Mack Ave., Detroit 15
Large, Alfred M.....1553 Woodward Ave., Detroit 26
Largo, Donald J.....Wayne County Gen. Hosp., Eloise
Larkin, Duane R.....27309 Plymouth Rd., Detroit 39
Larned, Richard I.....14182 Gratiot Ave., Detroit 5
Larsen, Robt. D.....76 W. Adams Ave., Detroit 26
Larson, Chas. J.....12820 Ward St., Wyandotte
Larson, Francine S. (A).....12820 Ward St., Wyandotte
Larsson, Bror H. (L).....3919 John R St., Detroit 1
Lasichak, Andrew G.....76 W. Adams Ave., Detroit 26
Lasley, James W.....5057 Woodward Ave., Detroit 2
Lathrop, Philip L.....8545 Second Blvd., Detroit 2
Latimer, Fredk. R.....28 W. Adams, Detroit 26
Latteier, Karl K.....968 Yarmouth, Birmingham
Lauppe, Edward H.....1551 Woodward Ave., Detroit 26
Lauppe, Fredk. A.....1553 Woodward Ave., Detroit 26
Laupus, Wm. E.....1221 Lincoln, Lincoln Park
Laurisin, Eugene.....16554 Muirland, Detroit 21
Lawhead, Nixon R.....7348 Kercheval Ave., Detroit 14
Lawrence, Louis F.....17300 Schaefer Rd., Detroit 35
Lawson, James M.....2605 W. Grand Blvd., Detroit 8
Lawson, John W.....98 Hazelwood Ave., Detroit 2
Lazar, Morton R.....7401 Third Ave., Detroit 2
Leach, David.....3011 W. Grand Blvd., Detroit 2
Leach, Robt. B.....1401 Rivard St., Detroit 7
Leacock, Robt. C.....440 University Pl., Grosse Pointe 30
Leader, Luther R.....1553 Woodward, Detroit 26
Leaver, L. Ross.....757 Lakewood Ave., Detroit 15
Lebamoff, Alexander T.....7940 Allen Rd., Allen Park
Lechner, Monroe S.....15070 Houston Ave., Detroit 5
Lecklider, A. F. (R)....848 Berkshire Rd., Grosse Pte. 30
Lee, Harry E.....13616 Gratiot Ave., Detroit 5
Leibinger, Henry R.....2511 Grand River Ave., Detroit 1
Leipsitz, Louis S.....3566 Cass Ave., Detroit 1
Leiter, Forrest C.....341 S. Highland St., Dearborn
Leithauser, Danl. J. (L)....14540 E. Warren, Detroit 15
Leland, Solomon.....6563 Grand River, Detroit 8
Lemley, Clark F.....3011 W. Grand Blvd., Detroit 2
Lemmer, John A.....9300 Mack Ave., Detroit 14
Lemmon, Chas. E.....1553 Woodward Ave., Detroit 26
Lemon, Bruce K.....8259 Meyers Rd., Detroit 28
Lentine, James J.....15831 Mack Ave., Detroit 24

Lenz, Willard R.....418 Moran Rd. G.P.F., Detroit 30
Lepard, Cecil W.....1553 Woodward Ave., Detroit 26
Lepley, Fred O.....1125 Three Mile Dr., Detroit 30
Lerman, Saml. I.....4400 Livernois St., Detroit 10
Lerner, Leonard H...7310 W. Seven Mile Rd., Detroit 21
Lesesne, John M.....17700 Mack Ave., Grosse Pointe 24
L'Esperance, Simon P. L. (R).....Route 3, Woodslee, Ont., Can.
Lessem, David.....12759 Vernon, Huntington Woods
Leszynski, Jos. S.....10 Peterboro St., Detroit 1
Leucutia, Traian....X-ray Dept. Harper Hosp., Detroit 1
Levagood, Floyd B.....14056 Artesian, Detroit 23
Levant, Arthur B.....15715 E. Warren, Detroit 24
Levenson, Malcolm L.....24554 Rensselaer, Oak Park 37
Leventer, Ira.....8844 Joy Rd., Detroit 4
Levin, David M.....15121 W. McNichols Rd., Detroit 35
Levin, Herbert G.....17300 Schaefer, Detroit 35
Levin, M. Mitchel.....5057 Woodward Ave., Detroit 2
Levin, Saml. J.....3011 W. Grand, Detroit 2
Levine, Edward E...25854 Salem Rd., Huntington Woods
Levine, Sydney S.....8233 W. Chicago Blvd., Detroit 4
Levitt, Edward J.....5057 Woodward Ave., Detroit 2
Levitt, Irving.....14624 E. Seven Mile Rd., Detroit 5
Levitt, Nathan.....76 W. Adams Ave., Detroit 26
Levy, Elizabeth H.....1800 Tuxedo, Detroit 6
Levy, Marvin B.....23200 Woodward Ave., Ferndale
Levy, Stanley H.....7441 W. Seven Mile Rd., Detroit 21
Lewin, Harry.....2457 Woodward Ave., Detroit 1
Lewis, Benjamin M.....1401 Rivard, Detroit 7
Lewis, Charles T.....5050 Joy Road, Detroit 4
Lewis, J. Hugh.....2956 Biddle Ave., Wyandotte
Lewis, Lee A.....2730 E. Jefferson, Detroit 7
Lewis, Robert H.....14807 W. McNichols Rd., Detroit 35
Lewis, Wilfrid J.....10 Peterboro St., Detroit 1
Libbrecht, Robt. V.....6540 Park Ave., Allen Park
Lichter, Max L.....2900 Oakwood Blvd., Melvindale
Lichtwardt, Hartman.....Woman's Hosp. E. Hancock, Detroit
Liddicoat, Arthur G.....18300 Bretton Dr., Detroit 23
Lieberman, Barnard L...19212 Woodward Ave., Detroit 3
Lightbody, James.....1553 Woodward Ave., Detroit 26
Lignell, Rudolph W.....16259 James Couzens, Detroit 21
Lilly, Chas. J.....2950 Puritan Ave., Detroit 38
Linkner, Leonard S.....12944 La Salle Lane, Huntington Woods
Lipinski, Stanley L.....7540 Michigan Ave., Detroit 10
Lipkin, Ezra.....5715 Michigan Ave., Detroit 10
Lipnik, Carl E.....31619 Plymouth Rd., Livonia
Lipnik, Morris J.....15101 W. 7 Mile Rd., Detroit 35
Lipschutz, Louis S.....19750 Chesterfield Rd., Detroit 21
Lipson, Channing T.....21220 Grand River Ave., Detroit 26
Lipson, Madeleine L.....7401 Third Ave., Detroit 2
Lipton, Raymond F.....10 Peterboro St., Detroit 1
Litsky, Abraham D.....1183 E. Grand Blvd., Detroit 11
Little, James W.....3855 Shallow Brook, Bloomfield Hills
Livingood, Clarence S.....2950 Iroquois, Detroit 14
Lockhart, Edward C.....4724 Tireman, Detroit 4
Lockwood, Bruce C.....1553 Woodward Ave., Detroit 26
Lofstrom, James E.....1420 St. Antoine St., Detroit 26
Lommel, Jerome G.....Lynn Clinic, Detroit 17
Long, Earl C.....13995 Rutland Ave., Detroit 27
Long, John J.....12421 Monica St., Detroit 4
Longo, Salvatore.....No address
Lookanoff, Victor A.....369 Glendale Ave., Highland Park 3
Loranger, C. B. P...888 Lakeshore Rd. G.P.S., Detroit 36
Loranger, Guy L.....34 Moross Rd. G.P.F., Detroit 30
Lorber, Jos. H.....16558 North Lawn, Detroit 21
Lorentzen, Edwin H.....11702 Grand River Ave., Detroit 4
Lovas, Wm. S.....6354 W. Fort St., Detroit 9
Love, Donald M.....1060 A. Van Dyke, Detroit 14
Love, W. Thos.....231 E. Warren Ave., Detroit 1
Lowe, Adolf W.....3338 W. Davison Ave., Detroit 38
Lowrie, Wm. L.....2799 W. Grand Blvd., Detroit 2
Lublin, Ann.....18412 Mack Ave., Detroit 24
Luby, Elliot D.....20138 Warrington, Detroit 21
Lui, Alfred H. F.....Wayne County Gen. Hosp., Eloise
Lukas, John R.....7068 Michigan St., Detroit 10
Lumpkin, John G., Jr.....243 E. Warren Ave., Detroit 1
Lutz, Earl F.....3044 W. Grand Blvd., Detroit 2
Lutz, Sherwin J.....19355 Wisconsin Ave., Detroit 21
Luzadre, John H.....18430 Mack Ave., Detroit 36
Lynn, David H.....No address
Lynn, Harvey D.....22159 W. Outer Dr., Dearborn
Lytle, Robt. P.....10 Peterboro St., Detroit 1

Maben, Hayward C., Jr...9342 Oakland Ave., Detroit 11
Mabley, John D.....1553 Woodward, Detroit 26
MacCraken, F. L. (A)....3752 Gladstone Ave., Detroit 6
MacDougall, Orrin P.....13700 Woodward Ave., Detroit 3
MacFarlane, Howard W.....1553 Woodward Ave., Detroit 26
MacGregor, Wm. W. (L).....6320 W. Surrey St., Birmingham
Mack, Harold C.....3011 W. Grand Blvd., Detroit 2
MacKenzie, Earle D.....81 E. Kirby St., Detroit 2
MacKenzie, Frank M. (R)....Box 326, c/o Mr. Timms, Sarnia, Ont., Can.
MacKenzie, John W.....289 Rivard Blvd., Grosse Pte. 30
MacKersie, Wm. G.....18205 Roselawn Ave., Detroit 21
Mackey, George S.....Henry Ford Hospital, Detroit 2
MacLeod, Charles W.....16116 W. McNichols, Detroit 35
MacMillan, Francis B...1553 Woodward Ave., Detroit 26
MacPherson, K. C.....8102 E. Jefferson, Detroit 14
MacQueen, Malcolm D.....660 Woodward Ave., Detroit 26
Maczewski, John E.....9535 Jos. Campau Ave., Hamtramck 12
Magnell, Ralph C.....8825 Puritan Ave., Detroit 21
Maguire, Clarence E.....1553 Woodward Ave., Detroit 26
Mahlin, Murray S.....95 Martin Pl., Detroit 1
Mahoney, Hugh M.....1553 Woodward Ave., Detroit 26
Maibauer, Fredk. P.....2966 Biddle Ave., Wyandotte
Maino, Linus J.....2501 W. Grand Blvd., Detroit 8
Mainwaring, Rosser L.....1910 Russell, Dearborn
Maire, Edward D.....15224 E. Jefferson, G.P.P., Detroit 30
Maitland, Ruth J.....1365 Cass St., Detroit 26
Majzoub, Ahmad J.....3334 Fort, Lincoln Park
Malachowski, B. T.....18240 Muirland, Detroit 21
Malik, Nur M.....585 E. Grand Blvd., Detroit 7
Malina, Stephen.....1601 Kirkway Dr., R. 3, Bloomfield Hills
Malone, John M.....20446 Freeland Ave., Detroit 35
Malone, Richard S. (M)..7424th USAF Hosp., APO 132, c/o Postmaster, New York, N. Y.
Maloney, John A.....5057 Woodward Ave., Detroit 2
Maltzer, Jos. H.....950 E. State Fair, Detroit 3
Mandiberg, Jack N.....12700 W. 7 Mile Rd., Detroit 35
Mann, Andrew D.....20901 Moross, Grosse Pte. 36
Manning, Morey H.....950 E. State Fair Ave., Detroit 3
Mapletoft, Kenneth E.....420 Mohawk, Dearborn
Manz, Howard N. (A).....Highland Park Gen. Hosp., Detroit 3
Marecki, Vincent J.....7068 Michigan Ave., Detroit 10
Margules, Saul Z.....2092 Ewald Circle, Detroit 38
Marinus, Carleton J.....1553 Woodward Ave., Detroit 26
Mark, Jerome.....76 W. Adams Ave., Detroit 26
Markey, Alexander P.....14853 Michigan Ave., Dearborn
Markey, Frank R.....17174 Fairfield, Detroit 21
Marks, Ben.....232 W. Grand River Ave., Detroit 26
Marks, Bert W.....8250 Lincoln Dr., Huntington Woods
Marsh, Alton R.....15596 Woodland Dr., Dearborn
Marshall, James R.....14528 E. Jefferson Ave., Detroit 15
Marshall, J. R., Jr.....20160 Mack Ave., Detroit 36
Martin, Elbert A. (L)..1553 Woodward Ave., Detroit 26
Martin, J. B., Jr.....449 E. Elizabeth St., Detroit 1
Martin, Lyndale R.....2000 Second Blvd., Detroit 26
Martin, Marion T.....8900 E. Jefferson, Detroit 14
Martin, Peter A.....17185 Muirland, Detroit 21
Martin, Wilbur C.....7440 W. Jefferson St., Detroit 17
Martineau, Perry C.....Herman Kiefer Hosp., Detroit 2
Martinez, Pedro O.....1439 Bagley Ave., Detroit 16

Martmer, Edgar E. 693 Washington Rd., Grosse Pointe 30
Marwil, Thos. B.....16965 Hamilton St., Detroit 3
Mateer, John G.....2799 W. Grand Blvd., Detroit 2
Matthews, Burton V.....2514 Biddle St., Wyandotte
Mattman, Paul E.....1500 Seminole, Detroit 14
Mattson, Theodore M.....3919 John R St., Detroit 1
Mauthe, Harry G.....9272 Idaho, Livonia
Maxwell, James H.....2415 W. Grand Blvd., Detroit 8
May, Fredk. T.....76 W. Adams Ave., Detroit 26
Mayer, Emil V. (L)....16525 Woodward Ave., Detroit 3
Maynard, Fredk. M.....14846 Harrison, Allen Park
McAlonan, William T.....10 Peterboro St., Detroit 1
McAlpine, Gordon S.....3011 W. Grand Blvd., Detroit 2
McBryan, Thos. J.....Grace Hospital, Detroit
McCadie, James H.....13700 Woodward Ave., Highland Park 3
McCandless, Virginia.....22276 Garrison, Dearborn
McCaughey, R. S.....Wayne St. University, Detroit 7
McClaughry, Robt. I.....No address
McClellan, Robt. J.....220 Bagley Ave., Detroit 26
McClelland, Rachel L.....33026 Five Mile Rd., Livonia
McClendon, James J.....503 E. Warren Ave., Detroit 1
McClintock, John J...16151 Schoolcraft Ave., Detroit 27
McClure, Robt. W.....9111 E. Outer Dr., Detroit 13
McClure, Wm. R. (L)..Box 1498, Boynton Beach, Fla.
McCole, Cornelius E.....Henry Ford Hosp., Detroit 2
McColl, Chas. W.....2826 Biddle St., Wyandotte
McColl, Clarke M.....2799 W. Grand Blvd., Detroit 2
McColl, Kenneth M.....20323 Mack, G.P.W., Detroit 36
McCollum, E. Bert.....1553 Woodward Ave., Detroit 26
McCord, Carey P. (L).....School of Public Health, Ann Arbor
McCormick, Colin C.....13530 Michigan Ave., Dearborn
McCullough, L. E.....1553 Woodward Ave., Detroit 26
McDonald, Allan W. (L).....15015 Ward, Detroit 27
McDonald, Angus L.....13856 Gratiot Ave., Detroit 5
McDonald, Wm. G.....15600 Michigan Ave., Dearborn
McDowell, Douglas B.....Wayne Co. Gen. Hosp., Eloise
McEvitt, Wm. G.....1140 W. Boston Blvd., Detroit 2
McFadyen, Hugh A. (L).....10 Peterboro St., Detroit 1
McGhee, Richard S.....10015 W. Eight Mile Rd., Detroit 21
McGlaughlin, N. D.....2312 Biddle Ave., Wyandotte
McGough, Jos. M.....18716 Grand River, Detroit 23
McGuire, John F.....22201 Cherry Hill Rd., Dearborn
McGuire, M., Ruth.....19567 Stratford Rd., Detroit 21
McIntosh, Robt. D.....6307 W. Fort St., Detroit 9
McIntyre, Wm. B.....1233 Audobon, G.P.P., Detroit 30
McKean, G. Thos.....1553 Woodward Ave., Detroit 26
McKean, Richard M...1553 Woodward Ave., Detroit 26
McKeever, Geo. E.....5237 Oakman Blvd., Dearborn
McKenna, Chas. J.....14618 E. 7 Mile, Detroit 5
McKinnon, John D. (A).....106 W. Davison Ave., Highland Park 3
McKnight, Robt. E.....10030 W. McNichols, Detroit 21
McLane, Harriet I. E. (L).....4350 Oregon Ave., Detroit 4
McLean, Brita R.....1365 Cass, Detroit 26
McLean, Donald C.....10 Peterboro, Detroit 1
McLean, Don W.....3011 W. Grand Blvd., Detroit 2
McNeill, Roger F.....119 Kercheval, Grosse Pointe
McNichol, Larry J.....20032 W. McNichols Rd., Detroit 19
McPhee, Roderick T.....987 E. Jefferson, Detroit 7
McPherson, Robt. J.....12626 Meyers Rd., Detroit 27
McQuiggan, Mark R.....700 Seward, Detroit 2
McQuiggan, Thelma H...Wayne Co. Gen. Hosp., Eloise
McRae, Donald H. (L).....275 W. Grand Blvd., Detroit 16
Meek, Stuart F.....13020 Kilbourne, Detroit 13
Melander, L. W., Jr.....1229 David Whitney Bldg., Detroit 26
Mellen, Hyman S.....16800 Greenfield, Detroit 35
Mellinger, Raymond C.....15825 Buckingham Rd., Birmingham
Melnik, Maxim P.....3011 W. Grand Blvd., Detroit 2
Menagh, Frank R.....4010 Columbus Ave., Detroit 4
Mendelssohn, Reuben J.....14427 Mack Ave., Detroit 15
Mendians, Edgar V.....Chrysler Corp., Detroit
Mendoza, Saml.....5737 Michigan, Detroit 10
Menton, Norman J.....17201 W. McNichols Rd., Detroit 35
Mercer, Arthur H.....Grace Hospital, Detroit 1
Merkel, Chas. C.....85 Kercheval Ave. G.P.F., Detroit 30
Merkle, Karl.....530 N. Telegraph, Dearborn
Merrill, Wm. O. (L)....3011 W. Grand Blvd., Detroit 2
Merritt, Earl G.....10 Peterboro St., Detroit 1
Mersky, Charlotte I (A).....32215 Queensboro, Farmington
Metes, John S.....1261 Fair Holme Rd., Detroit 36
Metzger, Harry C.....25504 Wareham, Huntington Woods
Meyer, Eugene.....2900 S. Fort St., Detroit 17
Meyer, John S.....Wayne State Univ., Detroit 7
Meyer, Kenneth R.....Oakwood Hosp., Dearborn
Meyer, Ruben.....18254 Livernois Ave., Detroit 21
Meyers, Marjorie P.....5320 John R St., Detroit 2
Meyers, Maurice P.....7411 3rd Ave., Detroit 2
Meyers, Sidney S.....20861 Mack, Detroit
Meyers, Solomon G.....5057 Woodward Ave., Detroit 2
Michael, Michael J.....938 Renaud Rd., Detroit 36
Michels, Julius (R).....9424 Mack Ave., Detroit 14
Mihay, Benjamin.....14359 Mich. Ave., Dearborn
Mikesell, W. B., Jr.....21124 Goddard Rd., Dearborn
Millard, Glenn E.....2900 W. Grand Blvd., Detroit 2
Miller, Danl. H.....8011 W. Verner Hwy., Detroit 9
Miller, Elmer B.....20 Oxford Rd., Pleasant Ridge
Miller, Jacob J.....20131 James Couzens, Detroit 35
Miller, J. Martin.....2799 W. Grand Blvd., Detroit 2
Miller, Karl L.....1553 Woodward Ave., Detroit 26
Miller, Michael M.....10514 E. Jefferson Ave., Detroit 14
Miller, Myron H...27330 Southfield Rd., Lathrup Village
Miller, Oscar W.....Fleetwood Plt. FBD, GMC, Detroit
Miller, Thos. H.....1553 Woodward Ave., Detroit 26
Miller, Wm. E. (L).....No address
Miller, William J.....5649 Inkster Rd., Garden City
Mills, Clinton C.....16191 Jas. Couzens Hwy., Detroit 21
Milton, Saml. B.....600 Palmerston Ave., River Rouge 18
Mintz, Edward I.....7401 Third Ave., Detroit 2
Mintz, Morris J.....16895 Livernois St., Detroit 21
Miral, Solomon P.....4825 E. McNichols Rd., Detroit 12
Mishelevich, Sophie....4651 E. Nine Mile Rd., Van Dyke
Miskinis, Martyna.....393 W. Grand Blvd., Detroit 16
Missavage, Edward, Jr.....Wayne County General Hosp., Eloise
Mitchell, A. W.....314 Visger, River Rouge 18
Mitchell, C. Leslie.....34 Hendrie Lane, G.P.F., Detroit 36
Mitchell, Darnell P.....7713 Oakland Ave., Detroit 11
Mitchell, Ralston S.....242 E. Warren Ave., Detroit 1
Moehlig, Robt. C.....3001 W. Grand Blvd., Detroit 2
Mogill, Geo.....3150 Second Blvd., Detroit 1
Moisides, Vasil P.....28 W. Adams Ave., Detroit 26
Moll, Clarence D.....10 Peterboro St., Detroit 1
Molnar, Stephen K.....4525 S. Telegraph Rd., Dearborn
Molner, Jos. G.....400 Woodward, Detroit 26
Momcilovich, Boxidar..2241 Huron River Dr., Rockwood
Mond, Edward.....10 Witherell St., Detroit 26
Monson, Robt. C.....16404 E. Warren Ave., Detroit 24
Montante, Jos. R.....18715 Bretton Dr., Detroit 23
Montgomery, Wm. C.....Henry Ford Hosp., Detroit 2
Monto, Raymond W.....2799 W. Grand Blvd., Detroit 2
Moore, John W., Jr.....8425 W. Eight Mile Rd., Detroit 21
Moore, Warren R.....1553 Woodward Ave., Detroit 26
Mopper, Coleman.....14633 E. Seven Mile Rd., Detroit 5
Morand, Louis J. (A)..1553 Woodward Ave., Detroit 26
Morgan, Donald N.....1553 Woodward Ave., Detroit 26
Moriarty, Geo. J.....3011 W. Grand Blvd., Detroit 2
Morita, Yoshikazu.....1401 Rivard, Detroit 7
Moritz, Henry C.....1553 Woodward Ave., Detroit 26
Morley, Arthur R.....2453 22nd St., Wyandotte
Morley, Harold V.....970 Fisher Bldg., Detroit 2
Morley, James A.....10514 Plymouth Ave., Detroit 4
Moroun, Sheffick J.....8045 E. Jefferson Ave., Detroit 14
Morris, Harold L.....3001 W. Grand Blvd., Detroit 2

Morse, Plinn F. (L).....3825 Brush St., Detroit 1
Morton, David G.....19445 Plymouth, Detroit 28
Morton, John B. (L).....90 E. Warren Ave., Detroit 1
Moseley, Fredk. L.....2561 S. Schaefer, Detroit
Mosen, Max M.....8015 Harper Ave., Detroit 13
Moses, John W.....3011 W. Grand Blvd., Detroit 2
Moss, Ervin B.....1907 Pingree Ave., Detroit 6
Moss, Nathan H.....2847 Trumbull, Detroit 16
Moss, Selma S.....18254 Livernois Ave., Detroit 21
Mossman, John D.....18914 Warrington Dr., Detroit 21
Moszcznski, B. J...1113 David Whitney Bldg., Detroit 26
Mott, Carlin P.....2395 W. Grand Blvd., Detroit 8
Mucasey, John.....19819 W. McNichols Rd., Detroit 19
Mullen, Jos. R.....19003 Ecorse Rd., Allen Park
Munson, Henry T.....18350 Mack, Grosse Pte. 36
Murphy, Donald J.....10 Peterboro St., Detroit 1
Murphy, Eugene J.....18500 Joy Rd., Detroit 28
Murphy, John M.....60 Lewiston Rd. G.P.F., Detroit 36
Murphy, Robert T. (M).....3680 Avalon St., Shaker Hgts., O.
Murphy, Scipio G.....603 E. Forest, Detroit 1
Murphy, Wm. M.....10500 E. Warren Ave., Detroit 13
Murray, Gordon M.....9901 Whittier, Detroit 24
Murray, Robt. J.....2299 West Rd., Trenton
Murray, Thomas H.....19345 W. McNichols Ave., Detroit 19
Murray, Wm. A.....11841 Ohio Ave., Detroit 4
Muske, Paul H.....5605 Michigan Ave., Detroit 10
Myers, Danl. W.....1150 Bedford Rd. G.P.P., Detroit 30
Myers, Gordon B.....789 Westchester Rd., Detroit 30

Nagle, John W.....114 Maple St., Wyandotte
Nahigian, Russell.....17371 Annchester Ave., Detroit 19
Nahoum, Antoine.....No address
Naud, Henry J.....18456 Grand River Ave., Detroit 23
Navori, Cornelius A.....3725 Fort St., Lincoln Park
Naylor, Arthur H.....10033 Tireman, Dearborn
Neeb, Walter G.....16840 E. Warren St., Detroit 24
Nehra, John M.....18514 Mack Ave., Detroit 36
Neill, Edwin J.....8045 E. Jefferson St., Detroit 14
Nelson, Darwin M.....63 Ridge Rd., Detroit 36
Nelson, Harry M.....3001 W. Grand Blvd., Detroit 2
Nelson, Victor E.....3025 Crooks Rd., Royal Oak
Newby, Burns G.....11963 Wisconsin, Detroit 4
Newman, Ernest.....17371 Evergreen St., Detroit 19
Newman, Geo. F.....41001 W. 7 Mile Rd., Northville
Newman, Max K.....16861 Wyoming Ave., Detroit 21
Nickel, Warren O.....Vet. Admin. Hosp., Dearborn
Nickels, Albert W.....3011 W. Grand Blvd., Detroit 2
Nielsen, Aage E.....10 Peterboro St., Detroit 1
Nielsen, Donald R. (A).....13026 Rosemary Ave., Detroit 13
Nigro, Norman D.....10 Peterboro St., Detroit 1
Nill, John B.....15001 E. Warren, Detroit 24
Nill, Wm. F.....15001 E. Warren, Detroit 24
Noble, Wm. C.....4045 W. Jefferson, Ecorse 29
Noe, Jos. T., Jr.....Wyandotte Chems. Corp., Wyandotte
Nolan, Bernard E.....1840 Hawthorne, Dearborn
Nolting, Wilfred S. H.....15850 E. Warren Ave., Detroit 24
Norcott, Edith G. S.....16350 Mack Ave., Grosse Pte. 24
Northcross, David C.....668 Winder St., Detroit 1
Norton, Arthur B.....5057 Woodward Ave., Detroit 2
Norton, Chas. S. (L).....3503 14th Ave., Detroit 8
Noshay, Wm. C.....2799 W. Grand Blvd., Detroit 2
Novack, Richard L.....9928 Farmington Rd., Livonia
Novy, Robt. L.....2910 Iroquois St., Detroit 14
Nunn, James W.....106 W. Davison, Detroit 3
Nyboer, Jan (A).....3825 Brush St., Detroit 1

O'Brien, Edward J. (L).....1553 Woodward Ave., Detroit 26
O'Brien, Geo. M.....2501 W. Grand Blvd., Detroit 8
Obushkevich, Leon S.....15720 W. Warren, Detroit 28
O'Connor, Katheryn L.....14301 W. Grand River Ave., Detroit 27
O'Donnell, Dayton H.....2501 W. Grand Blvd., Detroit 8
Oetting, Edward M.....2923 Iroquois Ave., Detroit 14
O'Hare, Wm. J.....Ford Motor Co., Dearborn
Ohmart, Galen B.....8721 E. Jefferson Ave., Detroit 14
Okun, Milton H.....3261 Sherbourne Rd., Detroit 21
Olejniczak, Stanley.....Wayne County Gen. Hosp., Eloise
Olen, Alex.....13100 Harper Ave., Detroit 13
O'Linn, Francis P.....3011 W. Grand Blvd., Detroit 2
Olmsted, Geo. S...27305 Southfield Rd., Lathrup Village
Olson, Avis M.....Mt. Carmel Mercy Hosp., Detroit 35
Olson, James A.....28 W. Adams Ave., Detroit 26
Oman, Cyrus F.....12608 Wyoming Ave., Detroit 38
Oppenheim, Jos. M.....3011 W. Grand Blvd., Detroit 2
Orecklin, Leo.....5057 Woodward Ave., Detroit 2
Organ, Fred W. (L)....10304 Woodward Ave., Detroit 2
Ormond, Robt. S.....1951 Monroe St., Dearborn
Ornstein, Charles.....19504 Kelly, Detroit 24
O'Rourke, Paul V.....17725 Manderson Rd., Detroit 3
O'Rourke, Randall M.....7384 12th St., Detroit 6
Osius, Eugene A.....1553 Woodward Ave., Detroit 26
O'Sullivan, Girardin S.....18129 Sunnybrook Ave., Birmingham
Otlewski, Eugene A.....19647 Joy Rd., Detroit 28
Ottaway, John P.....18226 Mack Ave. G.P.F., Detroit 36
Owen, Clarence I.....1544 Vinewood Ave., Detroit 16

Palmer, Alice E.....3919 John R St., Detroit 1
Palmer, Milton R.....7624 Dexter Blvd., Detroit 6
Palmisano, I. J.....25447 Plymouth Rd., Detroit 28
Pangburn, Leon E.....7 Avalon, Highland Park 3
Panic, Stephen M.....1001 W. Seven Mile, Detroit 3
Parcells, Frank H.....1014 Buckingham, Grosse Pointe 30
Parfanowycz, S. N.....7508 Michigan Ave., Detroit 10
Paris, Delmo A.....18801 E. Ten Mile Rd., Roseville
Park, Chas. W.....8414 Salem Lane, Dearborn
Parker, Albert R.....3720 Washington St., Wayne
Parker, Benj. R.....19149 W. Seven Mile Rd., Detroit 19
Parmelee, N. H.....East Side Gen. Hosp., Detroit 14
Parnell, John W.....1297 Lochmoor Blvd., Detroit 36
Parr, Robt. W.....3044 W. Grand Blvd., Detroit 2
Parrish, Rufus H.....301 E. Kirby, Detroit 2
Pasternacki, N. T.....6203 Chene St., Detroit 11
Pastorius, Melvin K.....25737 Fortuna, Roseville
Pawlowski, Jerome I.....2009 E. Grand Blvd., Detroit 11
Payne, Eugene H.....656 Van Dyke St., Detroit 14
Payne, Walter A., Jr.....691 Seward Ave., Detroit 2
Paysner, Harry A.....13700 Woodward Ave., Highland Park 3
Pearce, Arthur J.....15317 Piedmont St., Detroit 23
Pearlman, Jack.....25860 Concord, Huntington Woods
Pearse, Harry A.....3001 W. Grand Blvd., Detroit 2
Peat, Alexander C.....20170 Mack Ave., Grosse Pointe Farms
Pedersen, Herbert E.....381 Golfcrest Dr., Dearborn
Peggs, Geo. F.....5419 Livernois Ave., Detroit 10
Penberthy, Grover C. (L).....1551 Woodward Ave., Detroit 26
Pendy, Geo. V.....1001 David Whitney, Detroit 26
Pendy, John M.....896 Lockmoor Rd. G.P.W., Detroit 36
Pensler, Leslie.....8844 Joy Rd., Detroit 4
Pensler, Meyer.....8844 Joy Rd., Detroit 4
Percy, Donald F.....106 W. Davison St., Highland Park 3
Perdue, Grace M.....3011 W. Grand Blvd., Detroit 2
Perkin, Frank S.....3011 W. Grand Blvd., Detroit 2
Perlis, Hyman L.....5057 Woodward Ave., Detroit 2
Perlis, Marvin S.....952 Maccabees Bldg., Detroit 2
Perrin, Eugene V. (A).....4305 Russell Ave., Mt. Rainer, Md.
Peterman, Earl A.....13700 Woodward, Highland Park 3
Peters, Wm. R.....12400 E. Seven Mile Rd., Detroit 5
Petix, Saml. C.....19207 Schaefer, Detroit 35
Petoskey, Edward A.....7321 Whittaker, Detroit 9
Petrick, Thos. J.....1221 Lincoln Rd., Lincoln Park
Petrini, Mario A.....1067 Fisher Bldg., Detroit 2
Petty, Thos. A.....1204 Yorkshire Rd. G.P.P., Detroit 30
Peven, Philip S.....19565 Roslyn Rd., Detroit 21
Pfeiffer, Rudolph L. (L)..469 E. Grand Blvd., Detroit 7
Phillips, Burton E.....7600 John R. Street, Detroit 2
Picard, Jos. D.....5237 Oakman Blvd., Dearborn
Piccone, Louisa I.....10605 W. Warren S., Dearborn
Pichette, J. Walton.....15112 Michigan Ave., Dearborn
Pickard, Orlando W.....3011 W. Grand Blvd., Detroit 2

Pietraszewski, A. W.....10338 Joseph Campau Ave., Detroit 12
Pinckard, Karl G.....932 Mason St., Dearborn
Pingel, James F.....998 Norfolk, Birmingham
Pink, Rose M.....11413 Joseph Campau, Detroit 12
Pinney, Lyman J. (L).....28 W. Adams, Detroit 26
Pino, Ralph H.....1553 Woodward Ave., Detroit 26
Piper, Ralph R.....1495 McKinstry, Detroit 9
Pittman, John E.....1553 Woodward Ave., Detroit 26
Platz, Carol K.....11368 Kelly Road, Detroit 24
Plavnick, Herman M.....13300 Fenkell, Detroit 27
Pliskow, Harold....10730 W. Seven Mile Rd., Detroit 21
Plotnick, Harold.....17554 Indiana, Detroit 21
Plous, Eugene I.....1030 Fisher Bldg., Detroit 2
Podolsky, Harold M.....3755 Fort, Lincoln Park
Polentz, Charles P.....Medical Concourse, Northland Center, Detroit 35
Pollack, Jerome L.....29000 S. Fort St., Detroit 17
Pollack, John J.....18200 Wyoming, Detroit 21
Pollard, R. J.....Grace Hospital, Detroit 1
Pollens, Louis S.....12730 W. McNichols Rd., Detroit 35
Ponka, Jos. L.....2799 W. Grand Blvd., Detroit 2
Pool, Walter D.....20901 Moross Rd., Detroit 36
Poos, Edgar E.....3001 W. Grand Blvd., Detroit 2
Porretta, Anthony C.....5809 Yorkshire, Detroit 24
Porretta, Chas. A.....3919 John R St., Detroit 1
Porretta, Francis S.....8156 Normile Ave., Detroit 4
Porter, Fredk. G.....27459 Five Mile Rd., Livonia
Porter, Howard J.....36911 Goddard Rd., Romulus
Portnoy, Harry.....4253 Leslie, Detroit 38
Posch, Jos. L.....853 Brys Dr. N.G.P.W., Detroit 36
Posner, Irving.....18111 Muirland Ave., Detroit 21
Potts, Elihue B.....8943 Twelfth St., Detroit 6
Pratt, Jean P. (L).....18910 Fairway Dr., Detroit 21
Pratt, Lawrence A.....3919 John R St., Detroit 1
Preston, C. W.....4602 Brush Street, Detroit 1
Preston, Ruth E.....3011 W. Grand Blvd., Detroit 2
Price, Alfred H.....18605 Birchcrest Dr., Detroit 21
Price, Alvin E.....1553 Woodward Ave., Detroit 26
Priest, Robt. J.....9321 Faust Ave., Detroit 28
Prince, Addison E.....8942 Dexter, Detroit 6
Prisbe, Edward J.....16603 Plymouth Rd., Detroit 27
Priver, Julien.....6741 W. Outer Dr., Detroit 35
Procailo, Alexander B.....29901 Ford Rd., Garden City
Proctor, Bruce.....1553 Woodward, Detroit 26
Prokop, Frank P.....1212 E. Grand Blvd., Detroit 11
Proud, Robert H.....26151 Huron River Dr., Flat Rock
Proud, Russel F.....26151 Huron River Dr., Flat Rock
Prust, Frank W...1536 David Whitney Bldg., Detroit 26
Pugh, Howard C.....1553 Woodward Ave., Detroit 26
Pugliesi, Benedetto.....9489 E. Outer Dr., Detroit 13
Purcell, Frank H.....10 Witherell St., Detroit 26
Puro, Henry E.....2900 S. Fort St., Detroit 17
Purves, W. L.....500 Griswold St., Detroit 26

Quigley, Eugene H.....545 N. Waverly, Dearborn
Quigley, Wm. G.....16540 Warwick, Detroit 19
Quinn, Edward L.....1141 Golfview, Birmingham

Rahm, Lambert P.....14411 E. Jefferson Ave., Detroit 15
Rabinovitch, Bella M.....1214 Griswold St., Detroit 26
Raby, Naim.....215 St. Joseph, Trenton
Raiford, Frank P., Jr.....681 E. Vernor Hwy., Detroit 1
Raiford, Frank P.....681 E. Vernor Hwy., Detroit 1
Raizin, L. H.....14407 Curtis, Detroit 35
Ramsey, Robt. H.....310 River Lane, Dearborn
Randall, David S.....1765 W. Fort St., Lincoln Park
Rapp, Seymour L.....17528 Stoepel, Detroit 21
Raskin, Herbert A.....611 Kales Bldg., Detroit 26
Raskin, Morris.....987 E. Jefferson, Detroit 7
Rastello, Peter B.....30001 Van Dyke, Warren
Rau, Fredk. W.....631 Selden, Detroit 1
Ravitz, Louis A.....12831 Burton Ave., Oak Park 37
Ray, Kenneth J.....28059 Elba Dr., Grosse Isle
Raynor, Harold F.....49 Virginia Pk., Detroit 2
Rebuck, John W.....2799 W. Granm Blvd., Detroit 2
Redding, Lowell G.....1336 Southfield Rd., Lincoln Park
Reder, Benjamin....17301 W. Eight Mile Rd., Detroit 35
Redfern, W. Earl.....17392 Kirkshire St., Birmingham
Reed, Everett H. (A).....4034 Webb St., Detroit 4
Reed, Harry W.....8141 Dexter Blvd., Detroit 6
Reed, Ivor E.....1553 Woodward Ave., Detroit 26
Reed, Joseph O., Jr.....448 Lincoln, Detroit 30
Rees, Howard C.....15700 Mack Ave., Detroit 24
Reichling, R. J., Jr.....18514 Mack Ave., Grosse Pointe Farms 30
Reid, John G.....1553 Woodward Ave., Detroit 26
Reid, Wesley G.....3001 W. Grand Blvd., Detroit 2
Reiff, Morris V.....10241 Joy Rd., Detroit 4
Reinbolt, Chas. A. (L).....33570 Quaker Valley Rd., Farmington
Reiners, Charles R.....24250 Kipling, Oak Park
Reinsh, Ernest R.....5057 Woodward Ave., Detroit 2
Reisig, Robert O.....93 Kercheval, Detroit 36
Reisman, Nathan J.....15344 W. McNichols Rd., Detroit 35
Reisman, Saml. G.....5057 Woodward Ave., Detroit 2
Reive, David L. E.....24401 Plymouth St., Detroit 39
Rennell, Leo P.....2567 W. Grand Blvd., Detroit 8
Reno, George L.....970 Fisher Bldg., Detroit 2
Rentenbach, Robt. F.....314 David Whitney Bldg., Detroit
Reske, Alven A.....22177 Michigan Ave., Dearborn 7
Reveno, Wm. S.....3001 W. Grand Blvd., Detroit 2
Reyner, Clarence E.....10 Peterboro St., Detroit 1
Reynolds, Lawrence.....10 Peterboro St., Detroit 1
Reynolds, Robt. M.....856 Fisher Bldg., Detroit 2
Reynolds, Roland P.....17521 Hamilton Rd., Detroit 3
Rezanka, Harold J.....1553 Woodward Ave., Detroit 26
Rhoades, Francis P.....5057 Woodward Ave., Detroit 2
Rice, Harold B.....10 Peterboro St., Detroit 1
Rice, Meshel.....533 Coats Rd., Oxford
Richardson, Allan L. (R).....Naubinway
Richardson, Robt. P.....25622 Coolidge Hwy., Huntington Woods
Rick, Paul J.....4227 Mt. Elliott Ave., Detroit 7
Riddle, Charles B.....20945 Kelly Rd., East Detroit
Ridge, Ralph W. (L).....100 Oak St., Wyandotte
Rieckhoff, Geo. G.....14905 E. Jefferson Ave., Detroit 15
Rieden, James A.....18053 Muirland, Detroit 21
Rieger, John B. (L)..1265 David Whitney Bldg., Detroit
Rieger, Mary H.....19285 Lucerne Dr., Highland Park
Riethmiller, Robt. F...12444 E. Seven Mile Rd., Detroit
Rinaldo, Joseph, Jr.....Henry Ford Hosp., Detroit 2
Rinkel, Robert W.....7319 Park Ave., Allen Park
Riseborough, Ernest C.....90 East Warren Ave., Detroit 1
Ritter, George.....28420 Sunset Blvd., Birmingham
Rizzo, Paul.....22525 Baseline, St. Clair Shores
Robb, Edward L.....17380 Livernois Ave., Detroit 21
Robb, Herbert F.....381 Main St., Belleville
Robb, Herbert J.....19324 Herrick Ave., Allen Park
Robb, James M. (L).....633 David Whitney Bldg., Detroit 26
Roberts, Arthur J.....1310 Warwick Rd., Lincoln Park
Roberts, George A.....7220 Gratiot Ave., Detroit 13
Robins, S. Chas.....18963 Jas. Couzens Hwy., Detroit 35
Robinson, Harold A.....10040 Yellowstone, Detroit 4
Robinson, Howard.....3001 W. Grand Blvd., Detroit 2
Robinson, James H., Jr...1553 W. Grand Blvd., Detroit 8
Robinson, Remus G.....3751 31st St., Detroit 10
Roeglin, Orville F. F.....4386 Balfour Rd., Detroit 24
Rogers, Aaron Z.....20451 Mack Ave. G.P.W., Detroit 36
Rogers, Geo. E. B.....10 Witherell St., Detroit 26
Rogers, James D.....2966 Biddle Ave., Wyandotte
Rogers, John T.....16921 Jas. Couzens Hwy., Detroit 35
Rogin, James R.....1150 Griswold St., Detroit 26
Rogoff, Abraham S.....5057 Woodward Ave., Detroit 2
Rohde, Paul C. (L).....12282 E. Outer Dr., Detroit 24
Rom, Jack.....4775 W. Outer Drive, Detroit 35
Roman, Stanley J.....15020 Michigan Ave., Dearborn
Ronayne, John J., Jr.....16116 W. McNichols Rd., Detroit 35
Roney, Eugene H.....17197 Schaefer Hwy., Detroit 35
Rosbolt, Oscar P.....8505 Plymouth Rd., Detroit 4
Rosen, Harold M.....8620 W. McNichols Rd., Detroit 21
Rosen, Theodore S.....19340 Monte Vista, Detroit 21
Rosenbaum, Herbert.....19776 Snowden, Detroit 35
Rosenbloom, Alvin B.....17555 Parkside, Detroit 21

Rosenthal, Albert.....18709 Meyers Rd., Detroit 21
Rosenthal, Louis H.....15401 W. McNichols, Detroit 35
Rosenthal, Saml.....16350 Hamilton Ave., Detroit 3
Rosenwach, Felix F.....19149 W. Seven Mile Rd., Detroit 19
Rosenzweig, Saul.....2542 W. Boston Blvd., Detroit 6
Ross, Charles V.....7740 Da Costa, Detroit 39
Ross, Donald G.....722 Notre Dame Ave., Grosse Pointe 30
Ross, Hyman.....19149 Joy Rd., Detroit 23
Rotarius, Edward M.....Parke Davis Co., Detroit 32
Roth, Edward T.....640 E. Grand Blvd., Detroit 7
Roth, Theodore I.....60 W. Hancock Ave., Detroit 1
Rothbart, Harold B.....25622 Coolidge Rwy. H. W., Royal Oak
Rothman, Emil D.....25704 Ivanhoe, Hutington Woods
Rothwell, Walter S.....2900 S. Fort St., Detroit 17
Rottenberg, Coleman M. J.....13419 Fenkell, Detroit 27
Rottenberg, E. N...20725 W. Seven Mile Rd., Detroit 19
Rottenberg, Leon.....13419 Fenkell Ave., Detroit 27
Rourke, Robt. F.....4350 Haverhill, Detroit 24
Rowda, Michael S.....7 Cambridge, Pleasant Ridge
Rowe, Jos. J., Jr.....401 N. Brady, Dearborn
Royer, Richard R.....18101 E. Warren Ave., Detroit 24
Rucker, Julian J.....668 Farnsworth Ave. Detroit 2
Ruedemann, Albert D...1553 Woodward Ave., Detroit 26
Ruedemann, Albert D., Jr.....1553 Woodward Ave., Detroit 26
Rueger, Milton J.....86 Hall Pl., G.P.F., Detroit 36
Rueger, Ralph C.....9149 E. Jefferson Ave., Detroit 14
Runge, Edward F.....25549 Rouge River Dr., Dearborn
Rupp, Jacob R. (L).....8054 W. Fort, Detroit 9
Rupprecht, Emil F.....5525 W. Chicago Blvd., Detroit
Ruskin, Saml. H.....10 Witherell St., Detroit 26
Russell, Henry N., Jr.....1221 Lincoln, Lincoln Park
Rutzen, Arthur C.....3011 W. Grand Blvd., Detroit 2
Ryan, James M.....16888 Greenfield, Detroit 35
Ryan, William D. (R)....P.O. Box 4335, Porter Sta., Detroit 9
Rydzewski, Jos. B.....12170 Joseph Campau Ave., Detroit 12

Sack, Anthony G.....2567 W. Grand Blvd., Detroit 8
Sadler, Henry H., Jr.....594 Rivard Blvd., Grosse Pointe 30
Sadzikowski, Jos. T.....1320 N. Denwood. Dearborn
Sage, Bernard A.....1013 Haigh St., Dearborn
Sage, Edward O. (L).....415 Burns Dr., Detroit 14
Sager, Edward L.....13902 Gratiot Ave., Detroit 5
St. Amour, Hector J.....20120 Renfrew, Detroit 21
St. Louis, Rene J. (L).....10909 W. Jefferson Ave., River Rouge 18
Sakorraphos, S. N. (L).....1346 Broadway, Detroit 26
Sakwa, Saul.....19467 Livernois, Detroit 21
Salan, Lacy J.....995 S. Main St., Plymouth
Salchow, Paul T.....8285 Hartwell, Detroit 28
Saltzstein, Harry C.....5440 Cass Avenue, Detroit 2
Sand, Harry H.....24110 Oxford, Dearborn
Sander, Frank V., Jr.....344 Glendale Ave., Highland Park 3
Sander, Irvin W.....5050 Cass Ave., Detroit 2
Sanders, Alexander M...5057 Woodward Ave., Detroit 2
Sanderson, Susanne M. (L).....15 E. Kirby Ave., Detroit 2
Sandler, Nathaniel.....76 W. Adams Ave., Detroit 26
Sandweiss, David J.....15201 W. McNichols Rd., Detroit 35
Sapala, M. Andrew....13021 MacKenzie Ave., Detroit 28
Saraf, Leo B.....14540 E. Warren, Detroit 15
Sargent, Douglas A.....816 Grand Marais, Grosse Pointe Park
Sargent, Richard C.....17357 Fenkell St., Detroit 27
Sargent, William R.....17357 Fenkell St., Detroit 27
Sauk, John J.....302 W. McNichols Rd., Detroit 3
Saulsberry, Guy O.....301 E. Kirby, Detroit 2
Sauter, Simon H. (L)....1082 E. Grand Blvd., Detroit 7
Savignac, Eugene M.....4777 E. Outer Dr., Detroit 34
Scarney, Herman D.....3011 W. Grand Blvd., Detroit 2
Schaefer, H. C.....7815 E. Jefferson, Detroit 14
Schaefer, Robt. L.....76 W. Adams Ave., Detroit 26
Schaefer, Robt. L., Jr.....74 W. Adams, Detroit 26
Schaeffer, J. N.....261 Brady, Detroit 1
Schaeffer, Martin....18275 Warrington Dr., Detroit 21
Schane, David A.....17157 Mendota, Detroit 21
Scheinberg, S. R.....2240 W. Grand Blvd., Detroit 8
Schembeck, Isaac S.....1553 Woodward Ave., Detroit 26
Schiller, Arthur E.....1553 Woodward Ave., Detroit 26
Schillinger, H. K.....4834 Neckel Ave., Dearborn
Schirack, Raymond D. (A).....Luzerne
Schkloven, Norman.....20051 Warrington, Detroit 21
Schlafer, Nathan H.....10 Witherell St., Detroit 26
Schlesinger, Henry....13534 Woodward Ave., Detroit 3
Schlemer, John (A).....13826 Dexter, Detroit 38
Schmaltz, John D.....1553 Woodward Ave. Detroit 26
Schmidt, Generva F.....1074 Vernier Rd., G.P.W., Detroit 36
Schmidt, Harry E..... 24625 Fairmount Rd., Dearborn
Schmidt, Milton R.....2615 W. Jefferson, Trenton
Schmidt, Werner F.....28 W. Adams Ave., Detroit 26
Schmier, Burton L.....5440 Cass Ave., Detroit 2
Schmitt, Norman L.....10127 W. McNichols Rd., Detroit 21
Schneck, Robt. J.....1553 Woodward Ave., Detroit 26
Schneider, Chas. L.....22148 Michigan Ave., Dearborn
Schneider, Curt P.....3011 W. Grand Blvd., Detroit 2
Schoenfield, Gilbert D.....8830 W. McNichols Rd., Detroit 21
Schooten, Sarah S.....13700 Woodward Ave., Highland Park 3
Schorling, Otis W.....Detroit Memorial Hosp., Detroit 26
Schreiber, Frederic.....10 Peterboro St., Detroit 1
Schroeder, Carlisle F.....26505 E. River Rd., Grosse Ile
Shuknecht, Harold F.....500 Neff Rd., Grosse Pointe 30
Schulte, Carl H.....28 W. Adams Ave., Detroit 26
Schultz, Clarence H.....19353 Carlyle St., Dearborn
Schultz, Ernest C.....1553 Woodward Ave., Detroit 26
Schwartz, Benj.....275 W. Grand Blvd., Detroit 16
Schwartz, Harold A.....7605 Puritan Ave., Detroit 21
Schwartz, Louis A.....3011 W. Grand Blvd., Detroit 2
Schwartz, Oscar D.....7421 W. Seven Mile Rd., Detroit 21
Schwartzberg, J. A.....17606 Birchcrest Dr., Detroit 28
Schwarz, Frank W.....7815 E. Jefferson, Detroit 14
Schweigert, C. F.....10627 Cadieux Rd., Detroit 24
Schwimmer, Benjamin.....660 Clinton St., Detroit 26
Schwocho, Niles H.....6525 Park Ave., Allen Park
Sciarrino, Stanley V.....15388 Livernois Ave., Detroit 28
Scott, Marrion U.....79 Kercheval, Detroit 36
Scott, Robert J.....7333 W. Seven Mile Rd., Detroit 21
Scott, Wm. J.....79 Kercheval Ave., G.P.F., Detroit 36
Screen, Raymond J.....1420 St. Antoine St., Detroit 26
Seabrooks, Benj. F., Jr.....9136 Oakland Ave., Detroit 11
Secord, Eugene W. (A)....18980 Wyoming, Detroit 21
Seeley, James B.....5460 Schaefer Rd., Dearborn
Seeley, Ward F.....17405 Wildmere, Detroit 21
Segar, Laurence F.....10 Witherell St., Detroit 26
Segel, Nathan P.....19100 Manor, Detroit 21
Seibert, Alvin H. (L).....1180 Bedford Rd., Grosse Pointe Pk. 30
Seiferlein, A. L.....1553 Woodward Ave., Detroit 26
Self, Wm. G.....20861 Mack Ave., Grosse Pointe 36
Sellers, Chas. W.....2314 W. Grand Blvd., Detroit 8
Sellers, Graham A.....10535 W. Seven Mile Rd., Detroit 21
Seltzer, Joseph....10300 W. Seven Mile Rd., Detroit 21
Sepetys, Povilas.....Herman Kiefer Hosp., Detroit
Seski, Arthur G.....3011 W. Grand Blvd., Detroit 2
Sewell, Geo.....411 W. Ten Mile Rd., Pleasant Ridge
Sewell, Guy W.....16321 Mack Ave., Detroit 24
Shada, John C.....17830 E. Warren Ave., Detroit 24
Shafarman, Eugene M.....5320 John R. St., Detroit 2
Shaffer, Jos. H.....2401 Radnor Dr., Birmingham
Shaffer, Loren W.....6040 Wildrose Lane, Port Huron
Shafter, Royce R.....3011 W. Grand Blvd., Detroit 2
Shanoski, Stanley J.....5057 Woodward Ave., Detroit 2
Shapiro, Isadore A.....4400 Livernois St., Detroit 10
Shapiro, Jacob.....15085 E. 7 Mile Rd., Detroit 5

Shapiro, Reuben I.....5057 Woodward Ave., Detroit 2
Shargel, Geo. M. J.....1800 Tuxedo, Detroit 6
Sharp, Elwood A..... Parke, Davis and Co., Detroit 32
Sharpe, Wm. D.....13503 Northlawn, Detroit 38
Sharrer, Chas. H.....1133 Grayton, Detroit 30
Sheehan, John C.....3001 Miller Rd., Dearborn
Shekerjian, Armen.....20194 Wakefield, Detroit 21
Shelden, Warren E.....17147 Whitcomb, Detroit 35
Sheldon, John A. (L).....1435 3 Mile Dr., Grosse Pointe Pk. 30
Shelton, Carl F.....10 Witherell St., Detroit 26
Sheppard, Emma L. W. (R)....7245 Engelman Ave., Centerline
Sherman, Marvin.....15140 Miller, Oak Park 37
Sherman, W. La Rue.....10 Peterboro St., Detroit 2
Sherman, Wm. L., Jr. (M).....201 E. Kirby, Detroit 2
Sherrin, Edgar R.....17555 James Couzens, Detroit 35
Shewchuk, A. P.....7300 Allen Rd., Allen Park
Shick, John E.....Henry Ford Hosp., Detroit 2
Shields, Wm. L.....510 Hildale, Detroit 3
Shifrin, Peter G.....20211 Greenfield, Detroit 35
Shiovitz, Louis.....5419 Michigan Ave., Detroit 10
Shipton, Waldo H. (A)....General Delivery, Naples, Fla.
Shlain, Benj.....10244 W. Seven Mile Rd., Detroit 21
Shorney, Brian T.....301 E. 42 St., New York 17, N. Y.
Shors, Clayton M.....19635 Mack Ave., Detroit 35
Shortz, Gerald (A)....1994 Vernier, G.P.W., Detroit 36
Shreve, Alfred J.....10149 Michigan Ave., Dearborn
Shufro, Arthur S.....23084 Kipling, Oak Park
Shulak, Irving B.....10 Witherell St., Detroit 26
Shulman Herschel A.....5057 Woodward Ave., Detroit 2
Shumaker, Edward J.....17606 Wildmere, Detroit 21
Siddall, Roger S.....3011 W. Grand Blvd., Detroit 2
Sieber, Edward H.....15112 Michigan Ave., Dearborn
Siefert, John L.....12720 E. Outer Dr., Detroit 24
Siefert, Wm. A.....17400 Grand River Ave., Detroit 27
Siegel, Henry.....19720 Chesterfield, Detroit 21
Siero, Jose M. (M).....9105 Van Dyke, Detroit 13
Sievers, Lorraine A.....1457 David Whitney Bldg., Detroit 26
Sigler, John W.....1356 Greenlawn Blvd., Birmingham
Sill, Jacob A.....19635 Mack Ave., G.P.W., Detroit 36
Sillery, Robt. J.....857 Grosse Pte. Ct., Grosse Pointe 30
Silvarman, Israel Z.....9105 Van Dyke Ave., Detroit 13
Silver, Israel W.....20000 W. Chicago, Detroit 28
Silverman, Maurice M.....17301 W. Eight Mile Rd., Detroit 35
Silverman, Max.....2240 W. Grand Blvd., Detroit 8
Simmons, Donald R.....76 W. Adams Ave., Detroit 26
Simon, Heinz G.....18031 Kelly Rd., Detroit 24
Simpson, Gordon E.....18101 E. Warren Ave., Detroit 24
Sinclair, James W.....16404 E. Warren, Detroit 24
Singer, Floyd W.....13530 Michigan Ave., Dearborn
Sippola, Geo. W.....13603 La Salle Blvd., Detroit 38
Sisson, John M.....17320 W. McNichols, Detroit 35
Sivak, B. J.....24604 Templar, Detroit 35
Sklar, Manuel.....17300 Schaefer Hwy., Detroit 35
Sklover, Jos. I.....17537 Fairfield Ave., Detroit 21
Skully, Edward J.....13535 Woodward Ave., Highland Park 3
Sladen, Frank J. (L).....Henry Ford Hosp., Detroit 2
Slahetka, Vincent E.....7435 Michigan Ave., Detroit 10
Slaugenhaupt, J. G. (L)..1150 Griswold Ave., Detroit 26
Slaughter, Fred M.....455 E. Adams St., Detroit 26
Slazinski, Leo W.....7618 Michigan Ave., Detroit 10
Slevin, John G.....10 Witherell St., Detroit 26
Sliwin, Edward P.....4917 Schaefer Rd., Dearborn
Slusky, Jos.....1527 David Stott Bldg., Detroit
Slutzky, Gilbert.....18943 Monica, Detroit 21
Sly, Robt. F.....22213 Tenny St., Dearborn
Small, Henry.....11507 Hamilton Ave., Detroit 2
Small, John T.....18424 Prairie, Detroit 21
Smathers, Homer M.....14219 W. McNichols, Detroit 35
Smathers, Ward M.....14219 W. McNichols, Detroit 35
Smeck, Arthur R. (L)....1036 Waterman Ave., Detroit 9
Smith, Clarence V.....1716 E. Grand Blvd., Detroit 11
Smith, Claude A. (L).....7 Adams Lane, Dearborn
Smith, Douglas H.....1800 Tuxedo, Detroit 6
Smith, F. Janney.....1050 Yorkshire Rd., Grosse Pointe Park 30
Smith, Henry L.....16401 Grand River Ave., Detroit 27
Smith, J. Allen.....14140 Puritan Ave., Detroit 27
Smith, Richmond W., Jr.....2799 W Grand Blvd., Detroit 2
Smith, Roger F.....18755 Wilshire Ave., Lathrup Village
Smolenski, John J.....13815 Puritan Ave., Detroit 27
Smyka, Edward J.....6111 Charles St., Detroit 12
Smyka, Stanley M.....15731 Glenwood, Detroit 5
Snedeker, Bernard C.....18800 Woodward Ave., Detroit 3
Snider, James J. (M).....403 Bloomfield, Royal Oak
Snider, Thomas H.....V.A. Hospital, Dearborn
Snoke, Edwin C.....Lynn Hosp., Detroit 17
Snow, Linwood W.....508 W. Main St., Northville
Sobel, Robt. A.....18980 Wyoming, Detroit 21
Socall, Chas. J.....8500 Mount Elliott Ave., Detroit 11
Sokol, Wm. M.....15800 W. McNichols, Detroit 35
Sokolov, Raymond A.....3011 W. Grand Blvd., Detroit 2
Soller, Alex S.....15105 W. Seven Mile Rd., Detroit 35
Solomon, A. B.....16636 W. Chicago, Detroit 28
Solomon, Robert J.....1221 Lincoln, Lincoln Park
Sonda, Lewis P.....1553 Woodward Ave., Detroit 26
Sorock, Milton L.....19467 Livernois, Detroit 21
Sosa, Carlos M. A.....Ford Motor Co., Dearborn
Spademan, Loren C.....1100 North Woodward, Birmingham
Speck, Carlos C.....6525 Park Ave., Allen Park
Spector, Maurice J.....12938 E. Jefferson, Detroit 15
Spero, Gerald D.....7330 W. Seven Mile Rd., Detroit 21
Sperry, Frederick L. (A).....No address
Sphire, Raymond D.....4160 John R. St., Detroit 1
Spiro, Adolph S.....13240 Harper, Detroit 13
Springborn, Benj. R.....15818 E. Warren Ave., Detroit 24
Sprunk, Carl J.....2900 Oakwood Blvd. Melvindale
Spurrier, Ethelbert.....1553 Woodward Ave., Detroit 26
Squires, Walter M. (R).....1616 28th Ave. S., St. Petersburg, Fla.
Salker, Hugh (R).....25 Radnor Circle, Detroit 36
Stamell, Benjamin B.....5057 Woodward Ave., Detroit 2
Stamell, Meyer.....14634 Greenfield St., Detroit 27
Staniszewski, C.....8581 Pinehurst, Detroit 4
Stanton, James M.....28 W. Adams Ave., Detroit 26
Stanton, Myron R.....3400 W. Warren, Detroit 8
Stapleton, Wm. J., Jr. (L)..201 E. Kirby Ave., Detroit 2
Starkman, Morris.....14624 E. 7 Mile Rd., Detroit 5
Starrs, Thos. C. (L)....2211 Woodward Ave., Detroit 1
Staryk, Steven E.....1010 N. Oxford Rd., G.P.W., Detroit 36
Staub, Howard P.....37625 Michigan Ave., Wayne
Staudt, Louis W.....3341 Coolidge Rd., Royal Oak
Stearns, Alexander B...1116 Maccabees Bldg., Detroit 2
Stebbins, Chas. E.....664 Fisher Bldg., Detroit 2
Steepe, Chas. A. D.....20861 Mack, Grosse Pointe Woods
Stefani, Ernest L.....18600 Birchcrest, Detroit 21
Stefani, Raymond T.....13516 Stopel Ave., Detroit 38
Steffensen, Ellis H.....2799 W. Grand Blvd., Detroit 2
Stein, Albert H.....19334 San Juan Dr., Detroit 21
Stein, Emory.....13115 Woodward, Detroit 3
Stein, Saul C.....23105 Van Dyke, Van Dyke
Steinbach, A. L.....320 Merriweather Rd., Grosse Pointe 36
Steinbach, Henry B. (R).....3232 Palo Dr., Delray Beach, Fla.
Steinberger, E. J.....6402 W. Fort St., Detroit 9
Steiner, Fredk. B.....7675 Ridge Rd., Plymouth
Steiner, Gabriel.....10 Peterboro St., Detroit 1
Steiner, Louis J.....12636 Chelsea Ave., Detroit 13
Stellhorn, Chester E.....12900 W. Seven Mile Rd., Detroit 35
Stellhorn, Mary C. (A)....16616 Mack Ave., Detroit 24
Stempel, Edward M.....18324 Fairfield Ave., Detroit 21
Sterba, Richard F.....1130 Parker Ave., Detroit 14
Sterling, Robt. R.....52 Oxford Rd., Pleasant Ridge
Stern, Edward A.....12710 Dexter Blvd., Detroit 38
Stern, Julian.....1553 Woodward Ave., Detroit 26
Stern, Leonard H.....1630 Wellesley Dr., Detroit 3
Stern, Louis D.....1553 Woodward Ave., Detroit 26

Stevens, Chas. H.....Med Concourse, NC., Detroit 35
Stevenson, Chas. S.....19545 Park Lane, Grosse Ile
Stevenson, Lee B.....Henry Ford Hospital, Detroit 2
Stewart, Maitland N. Jr.....10 Peterboro St., Detroit 1
Stewart, Marjorie.....3815 Cumberland, Berkley
Stewart, Thos. O.....17187 Schaefer Hwy., Detroit 35
Stiefel, Danl. M.....1553 Woodward Ave., Detroit 26
Stillwater, Karl..19316 James Couzens Hwy., Detroit 35
Stith, Dwight E.....505 Owen St., Detroit 2
Stobbe, Godfrey D.....4160 John R. St., Detroit 1
Stocker, Lawrence L.....7330 W. Seven Mile Rd., Detroit 21
Stocker, Marvin L.....16401 Grand River, Detroit 27
Stockwell, Benj. W.....3919 John R. St., Detroit 1
Stokfisz, Thaddeus.....7012 Michigan, Detroit 10
Stoller, Raymond....25210 Grand River Ave., Detroit 19
Stone, Julius.....15398 Gratiot Ave., Detroit 5
Stone, Sidney L.....14620 E. Seven Mile Rd., Detroit 5
Straith, Richard E.....2605 W. Grand Blvd., Detroit 8
Strand, Martin E.....22400 Cherry Hill, West Dearborn
Stricker, Henry D.....5624 W. Fort St., Detroit 9
Strickfoot, Fred L.....1496 Chicago Blvd., Detroit 6
Strohschein, D. F...15800 W. McNichols Rd., Detroit 35
Stronski, G. E.....10820 Bonita, Detroit 24
Strutz, Wm. C.....7310 Grandmont Ave., Detroit 28
Stryker, Joan C.....21604 E. River Rd., Grosse Ile
Stryker, Walter A.....P.O. Box 31, Wyandotte
Stump, Geo. D.....1553 Woodward Ave., Detroit 26
Suen, Irene T. S.....3675 E. Outer Dr., Detroit 34
Sugar, David I.....17 Brady, Detroit 1
Sugar, H. Saul.....18140 San Juan Dr., Detroit 21
Sugarman, Marcus H.....15201 W. McNichols, Detroit 35
Sullivan, Hugh A.....1553 Woodward Ave., Detroit 26
Sultzman, L. Carl.....1438 Iroquis, Detroit 14
Summers, Wm. A.....1553 Woodward Ave., Detroit 26
Summers, Wm. S. (L).....402 N. Palmway, Lake Worth, Fla.
Surbis, John P.....22277 Long Blvd., Dearborn
Sutherland, Jacob M. (L)..716 Pallister Ave., Detroit 2
Suwinski, Raymond H.....9801 Conant St., Hamtramck 12
Swanson, Carl W.....936 Alter Rd., Detroit 15
Swanson, Cleary N. (R).....16921 James Couzens, Detroit 35
Swanson, Robt. G.....936 Alter Rd., Detroit 15
Swartz, Fred G., Jr.....1553 Woodward Ave., Detroit 26
Sweeny, Donald N., Jr.....8445 E. Jefferson, Detroit 14
Swihart, John J.....76 W. Adams Ave., Detroit 26
Switzer, Bertrand C. (R).....12246 Ilene, Detroit
Syphax, Charles S.....1819 E. Davison, Detroit 3
Szabunia, Sigmund C.....19600 Van Dyke., Detroit 34
Szappanyos, Bela (A).....18317 Stoepel, Detroit 21
Szilagyi, D. Emerick.....14638 Stahelin, Detroit 23
Szladek, Frank J.....4045 W. Jefferson Ave., Ecorse 29
Szmigiel, Alex J.....7527 E. Seven Mile Rd., Detroit 34
Taber, Rodman E.....Henry Ford Hosp., Detroit 2
Talbot, Frank G.....1365 Cass, Detroit 26
Tallant, Edward J.....19324 Westmoreland Rd., Detroit 19
Talmers, Fredk. N.....VA Hospital, Dearborn
Tamblyn, E. J. (L).....468 Cadieux Rd., Grosse Pointe 30
Tanner, Natalia M.....8035 Twelfth St., Detroit 6
Tapert, Julius C.....888 Chalmers Ave., Detroit 15
Tasker, Helen E.....76 W. Adams Ave., Detroit 26
Tassie, Ralph N.....15000 Gratiot Ave., Detroit 5
Tatelis, Gabriel A.....1011 E. Grand Blvd., Detroit 7
Tatelman, Maurice.....5440 Cass Ave., Detroit 2
Taurence, Wm. H.....1860 Ford Ave., Wyandotte
Taylor, Ivan B.....1116 Maccabees Bldg., Detroit 2
Taylor, Junius L.....1566 W. Grand Blvd., Detroit 8
Taylor, Nelson M...654 St. Clair Ave., Grosse Pointe 30
Taylor, Wm. V.....324 Moross Rd., G.P.W., Detroit 36
Tazzioli, Henry A.....21970 Moross Rd., Detroit 36
Tear, Malcolm J. J.....18445 Woodingham Dr., Detroit 21
Teitelbaum, Myer.....76 W. Adams Ave., Detroit 2
Tenaglia, Thos. A.....820 Kings Hwy., Lincoln Park
Tenerowicz, R. G.....2925 Lehman Ave., Detroit 12
Teshima, John Y.....18800 Woodward Ave., Detroit 3
Texter, Elmer C.....7457 Gratiot Ave., Detroit 13
Thomas, Alfred E.....73 E. Palmer, Detroit 2
Thomas, Blanche M.....6535 Allen Rd., Detroit 13
Thomas, Delma F. (L)..3011 W. Grand Blvd., Detroit 2
Thompson, Arthur L.....6125 Scotten Ave., Detroit 10
Thompson, Hugh O.....6014 W. Fort St., Detroit 9
Thompson, Wm. A. (R)....6125 Scotten Ave., Detroit 10
Thomson, Danl. C.....2966 Biddle Ave., Wyandotte
Thornell, Harold E.....7407 Twelfth St., Detroit 6
Thornton, Jerry A.....525 Visger Rd., Ecorse 29
Thosteson, G. C.....1139 David Whitney, Detroit 26
Thumann, Robt. C.....1553 Woodward Ave., Detroit 26
Thumim, Sadie.....15306 Joy Rd., Detroit 28
Timma, Richard J.....16401 Grand River Ave., Detroit 27
Ting, Yoeh Ming.....16024 Stratford Dr., Detroit
Tkaczuk, Dmytro.....10345 Joseph Campau, Detroit 12
Tobin, John S.....13400 W. Outer Drive, Detroit 28
Todoroff, Theodore G.....22740 Hollander, Dearborn
Tolbert, Vassal G.....3705 Hastings St., Detroit 1
Tomsu, Chas L.....16521 Westmoreland Rd., Detroit 19
Torres, Estelle P.....3985 Caniff, Hamtramck 12
Torres, Raul M., Jr.....3985 Caniff St., Hamtramck 12
Tourkow, Lawrence P.....4741 Fullerton, Detroit 38
Tourney, Garfield.....Lafayette Clinic, Detroit 7
Townsend, Frank M., Jr.....1551 Trumbull Ave., Detroit 16
Tracey, John M.....16650 James Couzens Hwy., Detroit 21
Trader, Kenneth N.....3001 W. Grand Blvd., Detroit 2
Tregenza, Wm. K.....18530 Grand River. Detroit 23
Tremain, Harold L.....106 W. Davison, Detroit 3
Trisler, John J.....651 Fisher Bldg., Detroit 2
Troester, Geo. A.....5057 Woodward Ave., Detroit 2
Trudgen, Paul E.....1224 Beechmont, Dearborn
Trupiano, Samuel.....5026 Bedford, Detroit 24
Truszowski, Edw. G.....3411 Evaline St., Detroit 12
Trythall, S. W.....Box 33, Orchard Lake
Tulloch, John.....1553 Woodward Ave., Detroit 26
Tupper, Roy D.....15105 W. Seven Mile Rd., Detroit 35
Turbett, Claude W. (L).....4230 Commonwealth Ave., Detroit 8
Turcotte, Vincent J. (A).....545 Lakeland, G.P., Detroit 30
Turkel, Henry.....8000 W. Seven Mile Rd., Detroit 21
Turnbull, Jack V.....22340 Michigan Ave., Dearborn
Turner, John J.....9078 Minock St., Detroit 28
Turner, Rachel E.....3113 Evergreen, Royal Oak
Tuynman, Peter E.....20032 W. McNichols Rd., Detroit 35

Ujda. Chester J.....32126 Woodbrook, Wayne
Ulbrich, Henry L. (L).....1540 Torrey Rd., Grosse Pointe Woods 36
Ulmer, Arthur A.....1989 Broadstone, G.P.W., Detroit 36
Ulrich, Willis H.....22365 Grand River Ave., Detroit 19
Umphrey, Clarence E.....6216 Hill Dr., Birmingham
Unkefer, Wm. T...15800 W. McNichols Rd., Detroit 35
Usher, Wm. K...15605 Kercheval Ave., Grosse Pointe 30
Usndek, Harold E.....18485 Mack Ave., Detroit 36

Vale, Clair F. (R).....2615 Via Tuscany, Winter Park, Fla.
Van Arsdale, Wm. L. (A).....15920 Loveland, Livonia
Van Becelaere, L. A.....1860 Ford Ave., Wyandotte
Vanden Berg, H. J., Jr.....1553 Woodward Ave., Detroit 26
Vander, Seymour A.....918 Maccabees Bldg., Detroit 2
Van Eck, James E.....279 Lothrop, G.P.F., Detroit 36
Van Hoek, Donald E.....14540 E. Warren Ave., Detroit 15
Van Hoey, Alger F.....19154 James Couzens, Detroit 35
Van Raaphorst, L. F.....861 Monroe, Dearborn
Van Riper, Steven L.....1490 Iroquois, Detroit 14
Van Slyck, E. J.....Henry Ford Hosp., Detroit 2

Vardon, Edward M.....12897 Woodward Ave., Highland Park 3
Vasu, Vasile O.....4829 Woodward Ave., Detroit 1
Velat, Clarence A.....2500 W. Grand Blvd., Detroit 8
Veldhuis, Andrew H.....2799 W. Grand Blvd., Detroit 2
Veling, William F.....3001 W. Grand Blvd., Detroit 2
Vigor, David N.....14110 Gratiot Ave., Detroit
Vokes, Milton D.....10182 Gratiot Ave., Detroit 13
Volini, Frederick (A).....Receiving Hosp., Detroit
Vonder Heide, Elmore C...17190 Strathmoor, Detroit 35
Vorwald, Arthur J.....1401 Rivard St., Detroit 7
Vossler, Albert E.....1553 Woodward Ave., Detroit 26

Waggoner, Lyle G.....1553 Woodward Ave., Detroit 26
Wainger, Max J.....10 Witherell St., Detroit 26
Wainstock, Michael A.....10 Witherell St., Detroit 26
Wakeman, Everal M.....22276 Garrison Ave., Dearborn
Waldbott, Geo. L.....2930 W. Grand Blvd., Detroit 2
Walker, Frank B. II.....VA Hospital, Dearborn
Walker, Geo. L.....10 Peterboro, Detroit 1
Walker, Roger V.....1553 Woodward Ave., Detroit 26
Walkowiak, Robt. G.....76 W. Adams Ave., Detroit 26
Wallace, Silas W.....7815 E. Jefferson Ave., Detroit 14
Wallaert, Albert A. J.....20861 Mack Ave., G.P.W., Detroit 36
Waller, John P.....11445 Harrison, Livonia
Walls, Arch.....17201 W. McNichols Rd., Detroit 35
Walser, Howard C.....3011 W. Grand Blvd., Detroit 2
Walsh, Francis P.....10 Peterboro St., Detroit 1
Walter, Arthur W.....14201 Rutland Dr., Detroit 27
Walter, Floyd J.....18714 Grand River Ave., Detroit 23
Walters, Albert G.....11078 Gratiot Ave., Detroit 5
Warner, Jack F.....7850 E. Jefferson, Detroit 14
Warner, Peter L.....10314 Puritan Ave., Detroit 38
Warren, Irving A.....4100 W. McNichols Rd., Detroit 21
Warren, Max W.....20001 Shrewsbury St., Detroit 21
Warren, Wadsworth....1553 Woodward Ave., Detroit 26
Wasserman, Harold.....No address
Wassermann, Lewis C.....300 W. McNichols Rd., Highland Park 3
Waszak, Chas. J.....2501 W. Grand Blvd., Detroit 8
Watson, Douglas J.....15101 Plymouth, Detroit 27
Watson, Harwood G.....935 S. Military Ave., Dearborn
Watson, J. Edwin.....2536 W. Grand Blvd., Detroit 8
Watts, Fredk. B.....16321 Mack Ave., Detroit 24
Watts, John C.....7360 12th St., Detroit 6
Watts, Joseph C.....5057 Woodward Ave., Detroit 2
Wayne, Morris A.....15930 Livernois Ave., Detroit 38
Weaver, Clarence E. (R).....1260 S.E. Fourth Ct., Deerfield Beach, Florida
Weaver, Delmar F.....1100 Bishop, G.P.P., Detroit 30
Weber, Karl W.....18101 E. Warren Ave., Detroit 24
Webster, John E.....1553 Woodward Ave., Detroit 26
Weed, Milton R.....1997 E. Grand Blvd., Detroit 11
Wehenkel, Albert M. (L).....7356 12th St., Detroit 6
Wehr, Maurice B.....2900 S. Fort St., Detroit 17
Weidner, John H.....24501 Emerson St., Dearborn
Weiner, Maurice B.....20211 Greenfield, Detroit 35
Weingarden, David.....13240 Vassar Dr., Detroit 35
Weingarten, Jerome S. (A).....19346 Ohio, Detroit 21
Weinstein, Jacob.....4237 Grand River Ave., Detroit 8
Weisberg, A. Allen.....20 W. Seven Mile Rd. Detroit 3
Weisberg, Harry....15101 W. McNichols Rd., Detroit 35
Weisberg, Jacob....15101 W. McNichols Rd., Detroit 35
Weisenthal, Irvin I.....5764 Woodward Ave., Detroit 2
Weiser, Frank A. (A).....235 Charlevoix, Detroit 36
Weiss, Casimir P.....1801 E. Canfield, Detroit 7
Weiss, Chas. F.....203 McMellan, Grosse Pointe 36
Weiss, Joseph G. (A).....Pontiac State Hosp., Pontiac
Weiss, Morris.....Hawthorn Center, Northville
Welch, John H.....18550 W. Outer Dr., Dearborn 7
Weller, Chas. N.....1553 Woodward Ave., Detroit 26
Wells, Herschel J.....Wayne Co. Gen. Hosp., Eloise
Wells, Martha L.....3011 W. Grand Blvd., Detroit 2
Weltman, Carl G. (A).....1553 Woodward Ave., Detroit 26
Wendell, Jacob S. (L).....No address
Wenzel, Jacob F.....18555 E. Warren, Detroit 36
Werle, Peter P.....1420 St. Antoine, Detroit 26
West, Charles (A).....23851 Ithaca, Detroit 37
West, George A.....6303 Mack Ave., Detroit 7
West, Malcolm E.....6303 Mack Ave., Detroit 7
Weston, Bernard.....19760 Monte Vista, Detroit 21
Weston, Earl E.....18101 Jas. Couzens Hwy., Detroit 35
Weston, Horace L.....28 W. Adams St., Detroit 26
Weston, Jean K.....444 Lodge Dr., Detroit 14
Weyher, Russell F.....5383 Oakman Blvd., Detroit 4
Whalen, Neil J.....1553 Woodward Ave., Detroit 26
Wharton, Thos. V.....1809 Oak St., Wyandotte
Wheatley, Bruce T.....16201 W. McNichols, Detroit 35
Wheatley, Charles E.....10151 Michigan Ave., Dearborn
Wheeler, Stewart C.....18901 W. McNichols Rd., Detroit 19
Whelan, Jos. L.....1360 Oxford Rd., G.P.W., Detroit 36
Whitcomb, Chas. E.....15756 Kentfield St., Detroit 23
White, Donald H.....1313 Cleveland St., Lincoln Park
White, Milton W.....2329 E. Grand Blvd., Detroit 11
White, Prosper D.....66 Tuxedo Ave., Highland Park 3
White, Theodore M.....7159 Michigan, Detroit 10
Whitehead, Leston S.....1553 Woodward Ave., Detroit 26
Whitehead, Walter K.....1553 Woodward Ave., Detroit 26
Whitehouse, Fred W.....2799 W. Grand Blvd., Detroit 2
Whiteley, Robt. K.....216 Lakeland Ave., Detroit 30
Whitelock, Edward H.....1809 Oak St., Wyandotte
Whitney, Elmer L. (L).....2 Kenberton Rd., Pleasant Ridge
Whitney, Rex E.....5525 W. Chicago Ave., Detroit 4
Whitrock, Robt. M.....1401 Rivard St., Detroit 7
Whittaker, Alfred H.....1427 E. Jefferson Ave., Detroit 7
Wiechowski, Henry E.....10345 Joseph Campau, Detroit 12
Wiener, Israel.....13011 W. McNichols Rd., Detroit 35
Wiener, Morton J.....76 W. Adams Ave., Detroit 26
Wietersen, Fred K.....18700 Meyers Rd., Detroit 35
Wight, Fred B.....1415 Parker Ave., Detroit 14
Wikiera, Edward S.....15020 Michigan Ave., Dearborn
Wilcox, Leslie F. (A).....No address
Wilhelm, Rudolf E. (M).....18273 Santa Rosa Ave., Detroit 21
Wilhelm, Seymour K.....13011 W. McNichols, Detroit 35
Wilkinson, Arthur P.....3001 W. Grand Blvd., Detroit 2
Williams, Chas. R. (A).....No address
Williams, Clarence J.....1342 Grayton Rd., G.P.P., Detroit 30
Williams, Delford G.....8540 Twelfth St., Detroit 6
Williams, Earl R.....No address
Williams, Eugene W.....10149 Michigan, Dearborn
Williams, John H.....15324 E. Jefferson, Detroit 30
Williamson, John G. (A)....3660 McKinley St., Dearborn
Williamson, Willie A.....4566 Seebaldt, Detroit 4
Willoughby, Wm. A.....974 Fisher Bldg., Detroit 2
Wilner, Freeman M.....17300 Schaefer, Detroit 35
Wilner, Irvin A.....17701 McNichols Rd., Detroit 35
Wilson, Andrew G.....4741 Spokane Ave., Detroit 4
Wilson, Gerald A.....771 Fisher Bldg., Detroit 2
Wilson, Gerald S.....3011 W. Grand Blvd., Detroit 2
Wilson, George M., Jr.....Henry Ford Hosp., Detroit 2
Wilson, Ian D.....4741 Spokane, Detroit 4
Wilson, Merton C.....15439 Harper Ave., Detroit 24
Winnick, Lawrence C.....13340 W. Seven Mile Rd., Detroit 35
Wise, Robt. K.....15801 W. McNichols Rd., Detroit 35
Wishropp, Edward A.....227 Kenwood Ct., G.P.F. Detroit 36
Wisniewski, E. M.....20100 Cooley, Detroit 19
Wittenberg, Arthur A.....7101 W. Chicago Blvd., Detroit 4
Wittenberg, Samson S.....2306 Oakman Blvd., Detroit 38
Wittenberg, Sydney S.....4400 Livernois Ave., Detroit 10
Witter, Jos. A.....344 Glendale Ave., Highland Park 3
Witus, Carl.....18412 Mack Ave., Detroit 36
Witus, Morris.....9036 Dexter Blvd., Detroit 6

Wolfe, Max O.....3044 W. Grand Blvd., Detroit 2
Wolfson, Wm. Q.....130 Waverly, Highland Park
Wollank, Helen W.....1303 Notthingham, G.P.P., Detroit 30
Wollenberg, Robt. A. C. (L).....1553 Woodward Ave., Detroit 26
Wolter, James G.....6071 W. Outer Dr., Detroit 35
Wood, Alfred L.....25001 Ford Rd., Dearborn
Wood, Douglas J.....2860 Clark Ave., Detroit 10
Wood, Geo. P.....2730 E. Jefferson St., Detroit 7
Wood, Kenneth A.....3919 John R. St., Detroit 1
Wood, Wilford C.....3011 W. Grand Blvd., Detroit 2
Woodbury, Ralph F.....119 Kercheval, Detroit 36
Woodley, Bernard J.....3529 W. Jefferson, Ecorse
Woods, Andrew J.....196 Visger, Detroit 18
Woods, Joseph J.....16921 James Couzens Hwy., Detroit 35
Woodworth, Wm. P. (L).....153 E. Elizabeth St., Detroit 1
Woolfenden, Jos. B.....22436 Edgewood St., St. Clair Shores
Worzniak, Jos. J.....2312 Biddle Ave., Wyandotte
Wreggit, Winston R.....17 Colorado Ave., Highland Park 3
Wright, Charles H.....1549 W. Grand Blvd., Detroit 8
Wruble, Jos.....411 Selden Ave., Detroit 1
Wunsch, Richard E...497 Rivard Ave., Grosse Pointe 30
Yarrows, Morton I.....455 Medbury St., Detroit 2
Yates, Arthur J. W.....16355 E. Jefferson, Grosse Pointe Park
Yesayian, H. G.....609 Kales Bldg., Detroit 26
Yetzer, Wm. J.....10 Peterboro St., Detroit 1
Yoder, Robt. R.....41001 E. Seven Mile Rd., Northville
Yott, Wm. J.....854 Lakeshore Rd., G.P.S., Detroit 36
Young, Donald A.....14807 W. McNichols Rd., Detroit 35
Young, Donald C.....1151 Taylor, Detroit 2
Young, Irving I.....32280 Shrewsbury, Farmington
Young, Lloyd B.....15800 W. McNichols, Detroit 35
Young, M. O.....8445 E. Jefferson. Detroit 14
Young, Richard D.....18000 James Couzens Hwy., Detroit 35
Young, Viola M.....10 Peterboro St., Detroit 1
Young, Watson A.....28437 Michigan Ave., Inkster
Youngstrom, Clarence S.....8004 Inkster, Dearborn
Zabinski, Edward J.....585 Ballantyne Rd., G.P.S., Detroit 36
Zager, Bernard S.....25321 Fenkell Ave., Detroit 39
Zavell, Paul M.....Henry Ford Hospital, Detroit 2
Zawacki, Sigmund G.....22214 Ford Rd., Dearborn
Zawadzki, Edward S.....14961 Piedmont Ave., Detroit 23
Zbikowski, Jos.....Wayne Co. Gen. Hosp., Eloise
Zbikowski, Z. T.....Wayne Co. Gen. Hosp., Eloise
Zbudowski, Myron R.....10040 Jos. Campau Ave., Detroit 12
Zelenock, Michael M.....2514 Biddle St., Wyandotte
Zemaitis, Petras.....3835 Biddle St., Wayne
Zemens, Jos. L.....13061 E. Eight Mile Rd., East Detroit
Ziegler, Robt. F.....2799 W. Grand Blvd., Detroit 2
Zielinski, Charles J.....10801 W. Warren, Dearborn
Zinn, Geo. H.....1553 Woodward Ave., Detroit 26
Zolliker, Margaret Z.....1420 Anita St., G.P.W., Detroit 36
Zuelzer, Wolfgang W.....5224 St. Antoine St., Detroit 2
Zukowski, Henry J.....72 N. Deeplands, Detroit 36
Zukowski, Sigmund A.....6626 Van Dyke Ave., Detroit 13

WEXFORD COUNTY

Bentley, M. D.....120 Cass, Cadillac
Cardinal, Thos. H.....212 S. Simons, Cadillac
Daugharty, Robt. V.....302 E. Chapin, Cadillac
Hubacker, Allan S. (M).....Fort Sheridan, Illinois
Inman, John C.....Lake City
Koepke, Benjamin McBain
Lommen, Ralph G.....Manton
Moon, Wm. W.....826 Oak St., Cadillac
Moore, G. P.....734 E. Division St., Cadillac
Murphy, M. R. 120 Cass St., Cadillac
Paye, Philip H.....311 Evart, Cadillac
Peterson, Wm. D.....Mesick
Posthuma, Millard.....124 E. Cass St., Cadillac
Purdy, Calvin S. (L).....Buckley
Seger, Dean W.....Lake City
Smith, W. J. (L).....208 E. Harris, Cadillac
Tornberg, G. C.....124 E. Cass St., Cadillac

HONORARY MEMBERS

Brake, D. Hale.....Stanton
Burns, Wm. J., LL.B.....606 Townsend St., Lansing
Cline, John W.....3467 Pacific Ave., San Francisco, Cal.
de Kruif, Paul, Ph.D.....“Wake Robin,” Holland
Johnson, Donald E.....207 E. First St., Flint
Kahlke, Charles E.....Benton Harbor
Upjohn, Lawrence N.....Upjohn Co., 301 Henrietta St., Kalamazoo

Woman's Auxiliary

Directory of Members, 1958

ALLEGAN COUNTY

Brachman, Mrs. A. Peter.....Rt. No. 1, Allegan
Brown, Mrs. Lewis F.....451 W. Allegan, Otsego
Clark, Mrs. James.....Box B, Fennville
Keeler, Mrs. Van.....Otsego
Mahan, Mrs. James E.....400 Trowbridge, Allegan
Miller, Mrs. Kenneth C.....Douglas
Vander Kolk, Mrs. Bert.....Box 236, Hopkins

BAY COUNTY

Alcorn, Mrs. Kent.....2211 McKinley Ave., Bay City
Alcorn, Mrs. Marshall.....210 Pendleton St., Bay City
Allen, Mrs. Arthur D.....4151 Two Mile Rd., Rt. No. 5, Bay City
Andrews, Mrs. F. T.....1414 McKinley Ave., Bay City
Asbury, Mrs. Richard B...2011 S. Sherman St., Bay City
Asline, Mrs. Norris.....310 Valerie Court, Essexville
Baird, Mrs. Fred....30 Hendrie, Lagoon Beach, Bay City
Boatwright, Mrs. Donald C.....407 N. Woodbridge St., Bay City
Bowman, Mrs. David A.....900 Powell Rd., Essexville
Brown, Mrs. G. M.....2257 Carrol Rd., Bay City
Campbell, Mrs. John S.....1838 McKinley Ave., Bay City
Chapin, Mrs. Fred J.....2121 Center Ave., Bay City
Cooper, Mrs. James C.....2150 Second St., Bay City
Cosens, Mrs. Stanley.....701 Webb Dr., Bay City
Cook, Mrs. Hugh.....1526 Helen St., Bay City
Criswell, Mrs. Robert H.....1412 Center Ave., Bay City
Dardas, Mrs. Michael J.....1611 Fourth St., Bay City
DeWaele, Mrs. Paul.....2171 Center Ave., Bay City
Drummond, Mrs. Fred.....Kawkawlin
Dumond, Mrs. V. H.....1700 Fifth St., Bay City
Ellison, Mrs. Alfred.....2010 Second St., Bay City
Freel, Mrs. John.....2202 Eleventh St., Bay City
Gale, Mrs. H. M.....1900 Center Ave., Bay City
Gamble, Mrs. William G., Jr.....1303 Fifth St., Bay City
Gehman, Mrs. J. R.....Omer
Geneczko, Mrs. John.....810 North Lincoln, Bay City
Grigg, Mrs. John W.....82 Cedar Dr., Bay City
Hafford, Mrs. Robert C.....316 Burns St., Essexville
Hagelshaw, Mrs. G. L.....1203 Fifth St., Bay City
Heuser, Mrs. Harold H.....2021 Sixth St., Bay City
Hickner, Mrs. L. P.....1713 Thirty-third St., Bay City
Horowitz, Mrs. S. F.....Sovereign Dr., Bay City
Howland, Mrs. Walter L.....Pinconning
Huckins, Mrs. E. S.....436 Cass Ave., Bay City
Huckins, Mrs. Roger..404 North Trumbull St., Bay City
Jacoby, Mrs. A. H.....2202 Ninth St., Bay City
Jaffe, Mrs. Martin.....705 McDonell, Essexville
Jens, Mrs. Otto.....Whittemore
Johnson, Mrs. Orlen J.....105 Parkwood, Bay City
Jones, Mrs. Culver.....1024 Rosemary Lane, Essexville
Knobloch, Mrs. Howard.....1911 Center Ave., Bay City
Kulinski, Mrs. Eugene.....601 Ames Court, Bay City
Langin, Mrs. John.....2126 Center Ave., Bay City
MacRae, Mrs. L. D.....813 N. Sherman St., Bay City
Mayne, Mrs. John C.....1409 Fourth St., Bay City
McDonnell, Mrs. W. R.....Pinconning
McEwan, Mrs. John.....2310 Nurmi Dr., Bay City
McGee, Mrs. Harry.....4774 Westgate Dr., Bay City
McGee, Mrs. Peter.....2175 Fourth St., Bay City
McLurg, Mrs. John.....1900 Center Ave., Bay City
Medvezky, Mrs. M. J.....314 Hill St., Bay City
Miller, Mrs. Edwin C.....614 Nurmi Court, Bay City
Moore, Mrs. Neal R.....2141 Fifth, Bay City
Mosier, Mrs. Dwight J.....307 W. Midland St., Bay City
Pearson, Mrs. S. M.....501 W. Jenny St., Bay City
Pelczar, Mrs. Walter.....321 N. Johnson St., Bay City
Perkins, Mrs. R. C.....2118 Fifth Ave., Bay City
Reddick, Mrs. Charles.....2015 Seventh St., Bay City
Reed, Mrs. William S.....2230 Groveland Ave., Bay City
Reuter, Mrs. Clarence W...5561 Gaertner Court, Bay City
Rodda, Mrs. Edward H.....2009 Center, Bay City
Rogers, Mrs. Charles S.....81 Tuscola Rd., Bay City
Shafer, Mrs. Harold C.....424 Green Ave., Bay City
Shek, Mrs. John L.....2618 Court, Saginaw
Shields, Mrs. Hubert L.....207 Huron St., Bay City
Slattery, Mrs. M. T.....2215 McKinley Ave., Bay City
Staley, Mrs. Hugh O.....Omer
Standiford, Mrs. David.....2146 Fourth St., Bay City
Stinson, Mrs. Walter.....4216 Ann Court, Bay City
Stroia, Mrs. Lee N.....414 Main St., Essexville
Suter, Mrs. Don.....1611 Green St., Bay City
Tarter, Mrs. C. S.....1712 Center Ave., Bay City
Taylor, Mrs. Robert S.....4656 Richardson Dr., Bay City
Taheri, Mrs. Z. E.....2712 S. Westgate Dr., Bay City
Tompkins, Mrs. Dana.....Pinconning
Treadway, Mrs. Gaylord A.....813 N. Birney St., Bay City
Urmston, Mrs. P. R.....1862 McKinley Ave., Bay City
Vail, Mrs. Harry.....1600 Borton St., Essexville
Wilcox, Mrs. James W.....210 Gates St., Bay City
Wilson, Mrs. T. G.....677 Oakwood Beach, Linwood
Wittwer, Mrs. E. A.....14816 Santa Rosa, Detroit
Woodburne, Mrs. H. L.....1107 Borton St., Essexville
Wright, Mrs. Thomas B.....531 Handy Dr., Bay City
Zaremba, Mrs. A. J.....108 S. Madison St., Bay City
Ziliak, Mrs. A. L.....3393 Kiesel Rd., Bay City

BERRIEN COUNTY

Allis, Mrs. Lyle.....W. River Rd., Buchanan
Bailey, Mrs. John.....2150 Samuel, Benton Harbor
Beal, Mrs. Gerald.....Brown School Rd., St. Joseph
Benner, Mrs. William.....40-B Lakeshore Dr., St. Joseph
Bleismer, Mrs. A. G.....2108 Morton, St. Joseph
Bronfenbrenner, Mrs. Jack.....1227 Harriet, St. Joseph
Butler, Mrs. William.....2216 Lakeview, St. Joseph
Chickering, Mrs. W. Alan..205 Deleware, Benton Harbor
Cawthorne, Mrs. H. J.....192 Robbins, Benton Harbor
Conybeare, Mrs. R. C.....234 Orchard, Benton Harbor
Cooper, Mrs. William L.....Paw Paw Island, Coloma
Cowdery, Mrs. K. H.....1620 Niles, St. Joseph
Crowell, Mrs. R. C.....1920 Sunset, St. Joseph
Elghammer, Mrs. Richard.....1106 Highland, St. Joseph
Elliot, Mrs. J. Colin.....111 Chippewa, Buchanan
Emery, Mrs. Clayton.....1329 Lake Blvd., St. Joseph
Emery, Mrs. William K.....1107 Flanders Pl., St. Joseph
Faber, Mrs. Michael.....176 W. Napier, Benton Harbor
Fattic, Mrs. G. R., Jr.....806 S. 3rd St., Niles
Feeley, Mrs. Marshall J.....2015 Forres, St. Joseph
Galles, Mrs. James O.....Paw Paw Island, Coloma
Garrett, Mrs. G. L.....3420 N. 5th, Niles
Gould, Mrs. Samuel H.....1865 E. Ogden, Benton Harbor
Hassan, Mrs. D. Kent.....606 Rynearson, Buchanan
Hayes, Mrs. Thomas P.....Lewis, St. Joseph
Heath, Mrs. David.....Box 124, Baldwin Rd., Bridgeman
Hershey, Mrs. Noel J.....1648 Broadway, Niles
Howard, Mrs. Frank.....680 Pipestone, Benton Harbor
Irgens, Mrs. Edwin R.....910 Kingsley, St. Joseph
Johnston, Mrs. William.....514 Sutherland, St. Joseph
Kelsall, Mrs. I. H.....900 Wolcott, St. Joseph
Kenfield, Mrs. W. John..North Shore Dr., Benton Harbor
Kennedy. Mrs. F. Allen.....582 Pearl, Benton Harbor
King, Mrs. B. B.....1290 Seneca, Benton Harbor
Klos, Mrs. Henry.....2700 Highland Ct., St. Joseph
Landgraf, Mrs. Robert.....527 W. Main, Niles
Lindenfeld, Mrs. Fred.....443 S. St. Joseph, Niles
Lininger, Mrs. Richard....2712 Highland Ct., St. Joseph
Manning, Mrs. John T.....1611 Forres Ave., St. Joseph
McLelland, Mrs. John.....Hoover, Benton Harbor
Mesirow, Mrs. Stanley.....1758 Commonwealth, Benton Harbor
Moore, Mrs. Scott.....1649 Broadway, Niles
Ozeran, Mrs. Charles J.....1565 Miami Rd., Benton Harbor
Peshka, Mrs. David.....3322 N. 5th, Niles
Polansky, Mrs. Sanford.....1160 Salem, Benton Harbor
Porter, Mrs. Charles B.....1589 Colfax, Benton Harbor
Pritchard, Mrs. H. M.....2031 U. S. 31 North, Niles
Rague, Mrs. Paul O.....1287 Seneca, Benton Harbor
Ray, Mrs. Dean K.....2019 Langley, St. Joseph
Reagan, Mrs. Robert....232 Windsor Rd., Benton Harbor
Rice, Mrs. Franklyn G., Jr.....324 N. 4th, Niles
Richmond. Mrs. Dean M.....218 Sunnybank, St. Joseph
Ruth, Mrs. J. Griswold....507 E. Britain, Benton Harbor
Skinner, Mrs. James W.....460 Ridgeway, St. Joseph
Sowers, Mrs. Bouton....236 Higman Park, Benton Harbor
Strayer, Mrs. John C.....103 Moccasin, Buchanan
Strayer, Mrs. John W.....553 Grant, Niles
Swingle, Mrs. Alvin.....North Shore Dr., Benton Harbor
Thorup, Mrs. Donald W.....1160 Miami Rd., Benton Harbor
Valentiejus, Mrs. John....Cedar Lane Farm, New Buffalo
Vastine, Mrs. Russell J., Jr.....430 W. Chicago, Buchanan
Winegar, Mrs. Alvin.....Glenlord Rd., Stevensville
Woodford, Mrs. H. E.....255 Oden, Benton Harbor
Zick, Mrs. Luther H.....426 Ridgeway, St. Joseph

BRANCH COUNTY

Aldrich, Mrs. Napier S.....162 Marshall, Coldwater
Bacon, Mrs. Charles R.....59 North Circle Dr., Coldwater
Bailey, Mrs. James E.....10 Carlyle Ave., Coldwater
Beck, Mrs. P. C.....235 N. Walker, Bronson
Buell, Mrs. Martin.....Battle Creek Rd., Union City
Coates, Mrs. Carl.....R. R. No. 1, Quincy
Culver, Mrs. B. W.....72 Division, Coldwater
Culver, Mrs. D. T.....78 Division, Coldwater
Fraser, Mrs. Robert J.....40 Fairfield Dr., Coldwater
Gist, Mrs. Lemuel I.....80 N. Sprague, Coldwater
Gomley, Mrs. Henry G.....435 W. Chicago, Bronson
Hamilton, Mrs. Earl.....State Home & Training School, Coldwater
Harris, Mrs. Donald.....25 N. Fremont, Coldwater
Heffelfinger, Mrs. John C.....150 Liberty, Coldwater
Leitch, Mrs. Robert M.....R. R. No. 2, Union City
Mitchell, Mrs. Harold C.....State Home & Training Sch., Coldwater
Mooi, Mrs. H. R.....20 Fairfield Dr., Coldwater
Moss, Mrs. Harvey L.....86 West Clarke, Coldwater
Nettleman, Mrs. William E.....136 East Pearl, Coldwater
Olmsted, Mrs. Kenneth L.....70 Marshall, Coldwater
Rennell, Mrs. E. J.....State Home & Training School, Coldwater
Southworth, Mrs. Robert.....171 Grand, Coldwater
Thomas, Mrs. James A.....390 E. Chicago, Coldwater
Wade, Mrs. Robert L.....144 E. Chicago, Coldwater
Walton, Mrs. N. J.....61 E. Chicago, Quincy
Weidner, Mrs. Harold R.....16 S. Fremont, Coldwater

CALHOUN COUNTY

Albright, Mrs. Arnold A.....R. 3, Box 380A, Battle Creek
Allen, Mrs. George S...Amer. Legion Hosp., Battle Creek
Allen, Mrs. Richard H.....33 Gordon Blvd., Battle Creek
Amos, Mrs. Norman H.....Waubascon Rd., Battle Creek
Bakken, Mrs. Richard L.....91 Sherman Rd., Battle Creek
Barden, Mrs. Stuart P.....R. 6, Box 9112, Battle Creek
Baribeau, Mrs. Roy H.....1003 Capital S.W., Battle Creek
Becker, Mrs. Harry F.....R. 3, Box 303A, Battle Creek
Beuker, Mrs. Herman.....501 Kalamazoo Ave., Marshall
Byland, Mrs. Nils O.....107 Greenwood, Battle Creek
Bodine, Mrs. Harold R.....396 Country Club Dr., Battle Creek
Bonifer, Mrs. Philip P.....93 Clinton Dr., Battle Creek
Brainard, Mrs. Clifford W.....148 Wahwahtaysee Way, Battle Creek
Brown, Mrs. Robert W.....24 Country Club Dr., Battle Creek
Campbell, Mrs. Jack S.....119 Shadywood Lane, Battle Creek
Campbell, Mrs. Richard J.....209 Emmett St., Battle Creek
Capron, Mrs. Manley J., Sr.....102 Ann Ave., Battle Creek
Capron, Mrs. Manley J., Jr.....114 College St., Battle Creek
Chandler, Mrs. Edward M.....55 N. Broad St., Battle Creek
Chynoweth, Mrs. Wm. R.....88 Ann Ave., Battle Creek
Coakes, Mrs. Jack E.....716 Gorham St., Marshall
Colquhoun, Mrs. Graham F.....12 Country Club Dr., Battle Creek
D'Aversa, Mrs. Gene.....705 Orchard Dr., Albion
Diamante, Mrs. Paul J.....224 Wahwahtaysee Way, Battle Creek

Ferazzi, Mrs. Patrick S.....309 Bittersweet Lane, Battle Creek
Finch, Mrs. Duward L.....72 Jennings Rd., Battle Creek
Fisher, Mrs. Robert E.....1501 W. Michigan Ave., Battle Creek
Fraser, Mrs. Robert H.....198 Fremont St., Battle Creek
Funk, Mrs. L. D.....133 W. Burr Oak, Athens
Giddings, Mrs. Allan M.....Battle Creek Sanitarium, Battle Creek
Graubner, Mrs. Franklin.....707 N. Linden St., Marshall
Griffith, Mrs. Jack C.....197 Beckwith Dr., Battle Creek
Hansen, Mrs. Harvey C.....80 Country Club Dr., Battle Creek
Herman, Mrs. Louis.....Vets. Adm. Hosp., Battle Creek
Hibbs, Mrs. Donald K.....117 Sunnyside Dr., Battle Creek
Holtom, Mrs. Benjamin G.....78 Merwood Dr., Battle Creek
Hubly, Mrs. James W.....446 Country Club Dr., Battle Creek
Humphrey, Mrs. Arthur.....788 Country Club Dr., Battle Creek
Jeffrey, Mrs. James R.....62 Ann Ave., Battle Creek
Jones, Mrs. Aubrey H.....513 West Michigan Ave., Marshall
Jones, Mrs. Ernest F.....Vets. Adm. Hosp., Battle Creek
Keagle, Mrs. Leland R.....41 Garrison Ave., Battle Creek
Kimball, Mrs. Arth. S., Jr.....196 Capital N.E., Battle Creek
Kinde, Mrs. Matthew R...48 Merwood Dr., Battle Creek
Kingsley, Mrs. Paul C.....29 Woodmer Lane, Battle Creek
Klopp, Mrs. Edward J.....535 Capital Ave., N.E., Battle Creek
LaFrance, Mrs. N. F.....Vets. Adm., Hosp., Battle Creek
Lam, Mrs. Francis L.....151 Sunnyside Dr., Battle Creek
Lancaster, Mrs. Moine....119 Ridgeway Dr., Battle Creek
Levine, Mrs. Samuel L.....Vets. Adm. Hosp., Battle Creek
Levy, Mrs. Joseph.....343 Orchard Place, Battle Creek
Lowe, Mrs. Kenneth H.....R. 1, Box 381, Augusta
Marino, Mrs. S. G.....Vets. Adm. Hosp., Battle Creek
McCuaig, Mrs. Alfred G.....145 Pleasantview Dr., Battle Creek
Meister, Mrs. Franklin O.....315 Orchard Place, Battle Creek
Melges, Mrs. Frederick J.....314 Orchard Place, Battle Creek
Morrison, Mrs. Donald B.....25 Crest Dr., Battle Creek
Mullenmeister, Mrs. Hugh F.....275 Capital Ave., N.E., Battle Creek
Orr, Mrs. Eli H.....Vets. Adm. Hosp., Battle Creek
Parkinson, Mrs. Chas. E.....R. 3, Box 605, Battle Creek
Patrick, Mrs. Gilbert T.....16 Hiawatha Dr., Battle Creek
Lowe, Mrs. Stanley T.....12 Hiawatha Dr., Battle Creek
Pearson, Mrs. Donald J.....32 Hiawatha Dr., Battle Creek
Power, Mrs. John R.....231 Fremont St., Battle Creek
Robbert, Mrs. John.....164 Francis Dr., Battle Creek
Robins, Mrs. Hugh.....237 Fremont St., Battle Creek
Rosenfeld, Mrs. Jos. E.....115 Laurel Dr., Battle Creek
Royer, Mrs. Clark W.....125 Sunnyside Dr., Battle Creek
Ryan, Mrs. Charles J.....540 Country Club Dr., Battle Creek
Schwarz, Mrs. Frank W...31 Orchard Place, Battle Creek
Sharp, Mrs. William T...Vets. Adm. Hosp., Battle Creek
Shellenberger, Mrs. Herbert M.....131 W. Hanover St., Marshall
Shipp, Mrs. Leland P.....611 Jennings Landing, Battle Creek
Simpson, Mrs. Robert S.....135 Shadywood Lane, Battle Creek
Slagle, Mrs. George W.....1702 Capital Ave., S.W., Battle Creek
Sleight, Mrs. James E.....R. 3, Box 305B, Battle Creek
Smith, Mrs. Joseph S.....Vets. Adm. Hosp., Battle Creek
Stadle, Mrs. Wendell H.....607 Jennings Landing, Battle Creek
Stephenson, Mrs. C. Douglas.....121 Laurel Dr., Battle Creek
Stiefel, Mrs. Richard A.....260 Wahwahtaysee Way, Battle Creek
Tazelaar, Mrs. Myron A.....219 Madison St., Marshall
Verity, Mrs. Lloyd E.....64 St. Joseph's Lane, Battle Creek
Walters, Mrs. John F.....265 Sherman Rd., Battle Creek
Walters, Mrs. William D.....R. 3, Box 605A, Battle Creek
Wemmer, Mrs. Keith S.....945 Barney Blvd., Battle Creek
Wencke, Mrs. Carl G.....127 Park Place, Battle Creek
Winslow, Mrs. Sherwood B.....20 Hiawatha Dr., Battle Creek
Worgess, Mrs. Duane R.....205 Territorial Rd., Battle Creek
Yannitelli, Mrs. S. A.....28 Woodmer Lane, Battle Creek
Zaplitny, Mrs. Roman B.....34 Ardmoor Dr., Battle Creek
Zelinski, Mrs. Thos.....122 Fremont St., Battle Creek
Zheutlin, Mrs. Bertram.....164 Hamilton Lane, Battle Creek
Zindler, Mrs. George A.....6373 Lacy Rd., Battle Creek

CHIPPEWA-MACKINAC-LUCE COUNTIES

Allott, Mrs. Hugh R...607 Sheridan Dr., Sault Ste. Marie
Blain, Mrs. James G. (W).....130 Park Place, Sault Ste. Marie
Blair, Mrs. H. Milton.....811 Summitt, Sault Ste. Marie
Clausen, Mrs. Clair H.....3108 Lakeshore Dr., Sault Ste. Marie
Finlayson, Mrs. Donald D.....903 Prospect, Sault Ste. Marie
Hamel, Mrs. Herbert.....120 Keightley St., St. Ignace
Harrington, Mrs. H. M.....3308 Lakeshore Dr., Sault Ste. Marie
Howe, Mrs. Donnell C.....1139 East Portage, Sault Ste. Marie
Mackie, Mrs. T. B.....Mission Rd., Sault Ste. Marie
Mertaugh, Mrs. William F...408 Cedar, Sault Ste. Marie
Montgomery, Mrs. Benj. T.....U. S. 2, Sault Ste. Marie
Rhind, Mrs. Earl S.....Riverside Dr., Sault Ste. Marie
Scott, Mrs. D. F.....506 Ravine, Sault Ste. Marie
Sudranski, Mrs. Herbert F.....312 Emmett, Sault Ste. Marie
Trapasso, Mrs. Tony J.....208 Mission Rd., Sault Ste. Marie
Venier, Mrs. Anton G.....1021 Parnell, Sault Ste. Marie
Wallen, Mrs. Leroy.....410 Dawson, Sault Ste. Marie
Yale, Mrs. I. V.....408 Carrie, Sault Ste. Marie

CLINTON COUNTY

Bennett, Mrs. George W.....203 West Main, Elsie
Cook, Mrs. Bruno.....Westphalia
Elliott, Mrs. Bruce R.....211 East First St., Ovid
Geib, Mrs. O. P.....Carson City
Grost, Mrs. James.....110 S. Oakland, St. Johns
Henthorn, Mrs. A. C.....105 S. Ottawa, St. Johns
Leider, Mrs. Thomas.....Ovid
McWilliams, Mrs. Wm. B.....210 S. Maple, Maple Rapids
Russell, Mrs. Sherwood.....104 N. Oakland, St. Johns
Sheline, Mrs. V. Lowell.....S. St. Johns St., Ithaca
Slagh, Mrs. E. M.....217 S. Ovid, Elsie
Smith, Mrs. F. W.....205 W. State, St. Johns
Stephenson, Mrs. W. F.....501 E. Walker, St. Johns
Stoller, Mrs. P. F.....St. Johns, S.E.

DELTA-SCHOOLCRAFT COUNTIES

Anderson, Mrs. Francis.....1012 S. 11th St., Escanaba
Boyce, Mrs. Donald.....1401 1st Ave. S., Escanaba
Brown, Mrs. Joseph.....Manistique
Dehlin, Mrs. James.....1225 Minnesota, Gladstone
Fyvie, Mrs. James.....Manistique
Groos, Mrs. Louis.....823 Lake Shore Dr., Escanaba
Jenke, Mrs. Albert.....738 Lake Shore Dr., Escanaba
LeMire, Mrs. Donald.....1811 Lake Shore Dr., Escanaba
LeMire, Mrs. William.....318 Lake Shore Dr., Escanaba
Lindquist, Mrs. Norman.....1815 Lake Shore Dr., Escanaba
Maniaci, Mrs. George.....1224 Wisconsin, Gladstone
McInerney, Mrs. Thomas....1616 16th Ave. S., Escanaba
Nagy, Mrs. Charles.....Bark River
Olson, Mrs. Carl.....619 Minneapolis, Gladstone
Ryde, Mrs. Robert.....750 Lake Shore Dr., Escanaba
Waters, Mrs. Duane.....358 Lake St., Manistique
Wehner, Mrs. Merle.....Manistique
Whipple, Mrs. Arno.....315 Ogden, Escanaba

EATON COUNTY

Arner, Mrs. Fred L.....Bellevue
Brown, Mrs. B. Phillip.....337 S. Cochran, Charlotte
Carothers, Mrs. Daniel J.....243 S. Sheldon, Charlotte
Cook, Mrs. J. Maxwell.....404 W. Harris, Charlotte
DeLand, Mrs. C. LeRoy.....Bellevue
Landick, Mrs. Robert E.....138 S. Bostwick, Charlotte
Matthews, Mrs. Roy W.....Charlotte
Meinke, Mrs. Richard K.....Eaton Rapids
Myers, Mrs. Albert W.....229 Potterville Rd., Potterville
Riley, Mrs. Joseph L., Jr.....815 N. Sheldon, Charlotte
Sevener, Mrs. Lester G.....608 W. Stoddard, Charlotte
Sherman, Mrs. Eber.....Eaton Rapids
Van Ark, Mrs. Bert.....Eaton Rapids
Van Ark, Mrs. Herman.....Eaton Rapids
Willits, Mrs. Clayton O.....127 Upland, Charlotte

GENESEE COUNTY

Adams, Mrs. Burnell.....3916 Academy, Dearborn
Adams, Mrs. Chester.....610 E. Grand Blanc Rd., Grand Blanc
Anderson, Mrs. Harley.....8212 N. Jennings Rd., Mt. Morris
Anderson, Mrs. John.....6227 River Rd., Flushing
Anderson, Mrs. Robert E.....3002 Mason St., Flint
Anthony, Mrs. Rose.....912 Beard St., Flint
Backus, Mrs. Glenn.....3131 Westwood Parkway, Flint
Baird, Mrs. Claire.....1818 Ramsey, Flint
Barbour, Mrs. Fleming.....2015 Lincoln Dr., Flint
Baske, Mrs. Franklin.....923 Maxine, Flint
Bateman, Mrs. Lawrence.....1708 E. Second St., Flint
Benson, Mrs. John.....1410 E. Court, Flint
Berman, Mrs. Harry.....927 Beard St., Flint
Bernstein, Mrs. Eli.....3211 Westwood Parkway, Flint
Best, Mrs. John.....3712 Brownell Blvd., Flint
Beyer, Mrs. George.....3329 Elmwood, Clio
Bird, Mrs. Minnie.....133 Odette, Flint
Bishop, Mrs. Don.....1024 Woodside Dr., Flint
Bogart, Mrs. Leon.....1125 South Dr., Flint
Branch, Mrs. Hira.....1014 Woodside, Flint
Brasie, Mrs. Donald.....310 Josephine, Flint
Bryant, Mrs. Donald.....3109 Mallery, Flint
Buchanan, Mrs. William.....902 S. Leroy, Fenton
Chambers, Mrs. Myrton....3402 Westwood Parkway, Flint
Charters, Mrs. John.....11089 Fenton Rd., Fenton
Chase, Mrs. William D.....1318 N. Ballenger, Flint
Clark, Mrs. Robert.....2703 Thomas, Flint
Collins, Mrs. James.....902 Stockdale, Flint
Colwell, Mrs. Clifford.....2011 Briar Hill, Flint
Conover, Mrs. George.....G-1152 N. Dye Rd., Flint
Conover, Mrs. J. Sidney.....2112 Radcliff, Flint
Cook, Mrs. Henry.....1819 Chelsea, Flint
Coriasso, Mrs. Louis.....409 W. Genesse, Flint
Credille, Mrs. Barney.....2020 E. Second St., Flint
Curry, Mrs. George.....3021 Westwood Parkway, Flint
Davis, Mrs. Robert.....407 Freemont, Flint
Dawson, Mrs. Ralph.....1617 Linwood Ave., Flint
Del-Zingro, Mrs. Nicholas.....Davison
Dodds, Mrs. Frederick....1291 Kearsley Park Blvd., Flint
Dodds, Mrs. Max.....1718 Kenwood, Flint
Dorsey, Mrs. Phillip.....G-1334 N. Dye Rd., Flint
Drewyer, Mrs. Glen.....5327 W. Reid Rd., Swartz Creek
Dykewicz, Mrs. Richard.....3221 Clement, Flint
Eichhorn, Mrs. E. M.....1301 Riverdale Rd., Flint
Eickhorst, Mrs. Thomas.....2562 Nolen Dr., Flint
Elliott, Mrs. Hardie.....2380 Nolen Dr., Flint
Ettinger, Mrs. Ralph.....409 S. East, Fenton
Fan, Mrs. Quincy.....2526 Mountain, Flint
Farah, Mrs. Ben.....342 Bradley, Flint
Farhat, Mrs. Maynard.....1901 Hampden Rd., Flint
Fee, Mrs. Manson.....1002 Maxine, Flint
Finkelstein, Mrs. Theodore.....401 Lafayette, Flint
Flynn, Mrs. Southard.....2354 Nolen Dr., Flint
Forrer, Mrs. Graydon.....408 Bolson Dr., Flint
Gelenger, Mrs. S. M.....2125 Detroit, Flint
Gleason, Mrs. N. A.....1309 Blanchard, Flint
Golden, Mrs. H. Maxwell.....1511 Woodcroft, Flint
Gorne, Mrs. S. S.....1009 Woodside Dr., Flint
Grady, Mrs. Donald.....1515 Woodslea, Flint
Griffin, Mrs. Ernest.....1510 Arrow Lane, Flint
Grover, Mrs. Harold.....3509 Norwood Dr., Flint
Guile, Mrs. Gurdon.....1621 Dupont, Flint
Gutow, Mrs. I. H.....3020 Westwood Parkway, Flint
Gutow, Mrs. Julius.....3759 Sunset Dr., Flint
Hackley, Mrs. Richard.....422 Grace, Flint
Hague, Mrs. Robert.....8231 River Rd., Flushing
Harper, Mrs. Alex.....712 Thompson, Flint
Harper, Mrs. Homer.....713 Thompson, Flint
Hauser, Mrs. Fred.....1027 Manning Ct., Flint
Hawkins, Mrs. James E.....1226 Leith St., Flint
Hennessey, Mrs. Charles.....1920 Hampden Rd., Flint
Hill, Mrs. William T.....7212 Flushing Rd., Flushing
Hiscock, Mrs. Harold.....2021 Briar Hill, Flint
Hooper, Mrs. Kendall.....3460 Hawthorne Dr., Flint
Hubbard, Mrs. William.....1205 Maxine, Flint
Hufton, Mrs. William.....2546 Nolen Dr., Flint
Hurd, Mrs. Clayton.....300 Robert St., Fenton
Jaarsma, Mrs. R. A.....928 Woodside Dr., Flint
Jackson, Mrs. Donald.....312 Elmwood Dr., Davison
James, Mrs. Robert.....1860 Hampton Rd., Flint
Jermstad, Mrs. Lorraine.....2121 Glendale, Flint
Johnson, Mrs. Frank D.....235 W. Hamilton, Flint
Johnson, Mrs. Frank D.....11069 Clio Rd., Clio
Johnson, Mrs. Raymond.....5173 W. Reid Rd., Swartz Creek
Judd, Mrs. Alvin.....2912 Circle Dr., Flint
Kaufman, Mrs. Lewis.....1617 Neome Dr., Flint
Kimbrough, Mrs. Clarence.....1402 S. Saginaw, Flint
Knapp, Mrs. Don.....712 Mann, Flint
Knapp, Mrs. William.....1138 Woodside Dr., Flint
Kretchmar, Mrs. Arthur.....G-1135 N. Dye Rd., Flint
Leach, Mrs. J. L.....1838 Owen, Flint
Le Mieux, Mrs. Leslie.....2801 Norbert Dr., Flint
Lewis, Mrs. Thomas.....4047 Mitchell, Flint

Lindman, Mrs. Thomas.....508 Freemont, Flint
Limbach, Mrs. David.....1801 Chelsea, Flint
Livesay, Mrs. Jackson.....702 Blanchard, Flint
Lundeen, Mrs. Richard.....3046 Canterbury, Flint
Lyttle, Mrs. Sidney.....3401 Concord, Flint
MacGregor, Mrs. Delbert.....722 W. Hamilton, Flint
Macksood, Mrs. Joseph.....3340 Parkside Dr., Flint
Marshall, Mrs. Sophie.....Stall Rd., P.O. Box 885, Olympia, Wash.
Mathias, Mrs. Burton.....3905 Proctor, Flint
McLeod, Mrs. Kenneth.....1001 Welch Blvd., Flint
McMurray, Mrs. Richard.....3818 Begole, Flint
McTaggart, Mrs. David.....926 Beard St., Flint
Michael, Mrs. Sidney R.....922 Welch Blvd., Flint
Michels, Mrs. Robert M.....409 N. McKinley Rd., Flushing
Michelson, Mrs. Richard.....510 Kensington, Flint
Miltich, Mrs. Anthony.....2222 Colfax, Flint
Miner, Mrs. Katherine.....1000 E. 7th St., Flint
Moore, Mrs. Glen.....1510 Durand St., Flint
Moore, Mrs. Alice.....2224 Pierce St., Flint
Moore, Mrs. Wesley P.....1519 Lapeer Rd., Flint
Morrisson, Mrs. William.....205 Perry Rd., Grand Blanc
Morrissey, Mrs. Vaughn.....101 Stockdale, Flint
Murphy, Mrs. E. Grant.....1825 Chelsea Circle, Flint
Neiswander, Mrs. Paul.....2552 Thomas, Flint
Nicholls, Mrs. William.....168 E. Stewart, Flint
Odle, Mrs. Ira.....201 Welch Blvd., Flint
Orr, Mrs. Walter.....13396 Enid Blvd., Fenton
Osher, Mrs. Seymour.....2113 E. 2nd St., Flint
Parliament, Mrs. Bert.....2715 Orchard Lane, Flint
Pfeifer, Mrs. A. C.....12205 N. Saginaw Rd., Mt. Morris
Phillips, Mrs. Robert W.....2613 Thomas, Flint
Pickering, Mrs. Woodrow.....1602 N. Ballenger, Flint
Polich, Mrs. John J.....5202 Kermit, Flint
Portney, Mrs. Jack.....1818 E. Court, Flint
Preston, Mrs. Otto.....1315 Maxine, Flint
Quin, Mrs. John, Jr.....417 Greenfield, Flint
Rapport, Mrs. Richard.....2306 Miller Rd., Flint
Rawlings, Mrs. Mott.....1601 Neome Dr., Flint
Reid, Mrs. John J.....627 Campbell, Flint
Reith, Mrs. George.....G-6452 Davison Rd., Flint
Rowe, Mrs. John.....1601 Lyons, Flint
Rulney, Mrs. Max.....323 Ferndale Place, Flint
Rundles, Mrs. Walter, Jr.....607 Rome Ct., Flint
Rundles, Mrs. W J.....G-6573 Flushing Rd., Flushing
Sandy, Mrs. Kenneth.....2701 Detroit, Flint
Sandberg, Mrs. Russell.....2030 Pierce, Flint
Scavarda, Mrs. Charles.....2101 E. Court, Flint
Schiff, Mrs. Benton.....3040 Parkside Dr., Flint
Schmidlin, Mrs. Robert.....4005 Greenbrook Lane, Flint
Schultz, Mrs. J. Stamley.....1397 Sun Terrace Dr., Flint
Swartz, Mrs. John.....2920 Dupont St., Flint
Seven, Mrs. Philip G.....2301 Cummings, Flint
Seymour, Mrs. George.....2411 Ashland, Clio
Shantz, Mrs. Leighton.....2026 Calumet, Flint
Sheeran, Mrs. Daniel.....610 N. Vernon, Flint
Sherwood, Mrs. Frederick.....3017 Menominee, Flint
Shipman, Mrs. Charles.....602 Kensington, Flint
Simoni, Mrs. Lewis.....702 Kensington, Flint
Sirna, Mrs. Anthony.....2709 Thomas, Flint
Smith, Mrs. Eugene.....916 Woodside, Flint
Smith, Mrs. Harold.....1952 Miller Rd., Flint
Smith, Mrs. Maurice.....1521 Cromwell, Flint
Sniderman, Mrs. Benjamin.....3738 Norwood Dr., Flint
Sorkin, Mrs. Morris.....4001 Greenbrook, Flint
Sorkin, Mrs. Samuel.....1919 Miller Rd., Flint
Sparks, Mrs. Harvey.....126 E. Jackson, Flint
Steffee, Mrs. Ralph.....1617 Brookwood, Flint
Steinman, Mrs. Floyd.....2418 Nolen Dr., Flint
Stevens, Mrs. Philip.....468 Commonwealth, Flint
Stevenson, Mrs. William.....1521 Arrow Lane, Flint
Stroup, Mrs. Clayton.....G-5208 E. Court, Flint
Thompson, Mrs. Florence.....1601 Cromwell, Flint
Thompson, Mrs. Jack.....3031 Westwood Parkway, Flint
Tuuri, Mrs. Arthur L.....1707 Greenway Ave., Flint
Van Harm, Mrs. Raymond.....2101 Winona, Flint
Varney, Mrs. Howard.....2564 Thomas, Flint
Vary, Mrs. Edwin.....2472 Nolen Dr., Flint
Wade, Mrs. Franklin.....213 W. Paterson, Flint
Ware, Mrs. Frank.....902 Woodside Dr., Flint
Wark, Mrs. David.....1315 Detroit St., Flint
Wentworth, Mrs. John.....1651 Chevrolet, Flint
Wheeler, Mrs. J. D.....2506 Begole, Flint
Williams, Mrs. W. S.....5216 S. Genesee Rd., Grand Blanc
Willoughby, Mrs. Gordon.....2960 Mallery, Flint
Wills, Mrs. Thomas.....G-1360 No. Packard, Davison
Woughter, Mrs. H. W.....3440 Hawthorne Dr., Flint
Wright, Mrs. Donald.....402 W. Court, Flint

GOGEBIC-ONTONAGAN COUNTIES

Davidson, Mrs. Donald L.....Ramsey
Franck, Mrs. J. R.....525 Harrison St., Wakefield
Gingrich, Mrs. Wayne A.....Lake Road, Ironwood
Gorilla, Mrs. A. C.....516 N. Lawrence, Ironwood
Harrington, Mrs. Rex R.....104 E. Ridge St., Ironwood
Hogue, Mrs. Harold.....Ewen
Keskey, Mrs. Theodore.....205 W. Coolidge, Ironwood
McEnroe, Mrs. John E.....7 Newport Hghts., Ironwood
OBrien, Mrs. A. J.....419 E. Vaughn St., Ironwood
Pinkerton, Mrs. H. A.....9 Newport Hghts., Ironwood
Santini, Mrs. Florian J.....615 N. Lowell St., Ironwood
Stevens, Mrs. Charles E.....414 N. Lowell St., Ironwood
Tressel, Mrs. H. A.....308 Sunday Lake St., Wakefield
Wacek, Mrs. Wm. H.....809 Sunset Road, Ironwood

GRAND TRAVERSE-LEELANAU-BENZIE COUNTIES

Beall, Mrs. John G.....P.O. Box 283, Traverse City
Behan, Mrs. Gerald W...Rte. #3, Box 390, Traverse City
Benjamin, Mrs. Mac.....619 N. Elmwood Ave., Traverse City
Bolan, Mrs. Ellis.....Sutton's Bay
Brownson, Mrs. Jay J.....Kingsley
Brownson, Mrs. Kneale.....1140 Penisula Dr., Traverse City
Bushong, Mrs. B. B.....318 Wellington, Traverse City
Clark, Mrs. Charles D.....6874 Peninsula Dr., Traverse City
Cline, Mrs. Warren.....1629 So. High St., Traverse City
Edmonds, Mrs. W. T.....Rt. #1, Williamsburg
Ellis, Mrs. C. I.....Box 68, Sutton's Bay
Fiebing, Mrs. J.....1109 Bay St., Traverse City
Ferguson, Mrs. J.....Box C, Traverse City
Gallagher, Mrs. Wm.....Box C, Traverse City
Haberlein, Mrs. Chas.....701 Monroe Ave., Traverse City
Hall, Mrs. Jas. W.....1431 Peninsula Dr., Traverse City
Hamilton, Mrs. Earl E.....627 Ahgosa Tr., Traverse City
Huene, Mrs. Nevin.....508 State St., Traverse City
Jerome, Mrs. J. T.....609 S. Sixth St., Traverse City
Kyselka, Mrs. Harry.....E. Long Lake Rd., Traverse City
Lawton, Mrs. F. L.....540 W. Seventh St., Traverse City
Lemen, Mrs. C. E.....521 Washington St., Traverse City
Lossman, Mrs. Robt.....R.R. 2, Deepwater Pt., Williamsburg
McClay, Mrs. Adam C.....6330 Peninsula Dr., Traverse City
Merritt, Mrs. Harry.....112½ E. Front St., Traverse City

Milliken, Mrs. John....1435 Peninsula Dr., Traverse City
Nickels, Mrs. M. M.....R.R. 4, Box 121, Traverse City
Osterhagen, Mrs. Harold.....12818 S. Manitou, Traverse City
Osterlin, Mrs. Mark....6223 Peninsula Dr., Traverse City
Otto, Mrs. D. L.....225 Center Lane, Traverse City
Pike, Mrs. Donald....East Bay Shore Rd., Traverse City
Power, Mrs. Frank.....521 Sixth St., Traverse City
Salon, Mrs. Dayton D.....216 S. Elmwood Ave., Traverse City
Scott, Mrs. John.....536 Washington St., Traverse City
Sheffer, Mrs. Marcus B.....P.O. Box 175, Traverse City
Sladek, Mrs. E. F.....224 W. 7th St., Traverse City
Sommerness, Mrs. Martin.....Box C, Traverse City
Sorum, Mrs. F. T.....Box C, Traverse City
Steele, Mrs. Wm. M.....1215 S. Union St., Traverse City
Stokes, Mrs. G. Edward....425 S.ixth St., Traverse City
Sweeney, Mrs. Bernard.....Route #1, Williamsburg
Thirlby, Mrs. E. L.....520 Sixth St., Traverse City
Thirlby, Mrs. Richard....1315 Wayne St., Traverse City
Wagener, Mrs. Creighton.....1802 E. Front St., Traverse City
Weih, Mrs. Jack.....118½ E. Front St., Traverse City
Weitz, Mrs. Harry.....529 Monroe St., Traverse City
Wilcox, Mrs. Paul.....526 W. 10th St., Traverse City
Wright, Mrs. Johnson....1027 E. Front St., Traverse City
Zielke, Mrs. Irwin H.....515 N. Elmwood Ave., Traverse City
Zimmerman, Mrs. J. C.....606 N. Elmwood Ave., Traverse City

GRATIOT-ISABELLA-CLARE COUNTIES

Barstow, Mrs. Donald.....259 Cheesman, St. Louis
Bedo, Mrs. Andrew V.....802 Gordon, Mt. Pleasant
Brenner, Mrs. Ervin J.....612 S. College, Mt. Pleasant
Chamberlain, Mrs. Ray....608 E. Chippewa, Mt. Pleasant
Chamichian, Mrs. Sauren....1026 S. Drive, Mt. Pleasant
Davis, Mrs. Lionel L.....314½ S. Brown, Mt. Pleasant
Douglas, Mrs. Kenneth W.....W. Pickard, Mt. Pleasant
Dunlop, Mrs. Donald.....Clare
Graham, Mrs. B. J.....119½ E. Superior, Alma
Hammerberg, Mrs. Kuno.....622 McEwan, Clare
Harrigan, Mrs. William.....408 E. Broadway, Mt. Pleasant
Hersee, Mrs. Wm. E.....306 S. College St., Mt. Pleasant
Hoogerland, Mrs. C. L.....514 Iowa, Alma
Johnson, Mrs. Phillip R.....206 S. College, Mt. Pleasant
Juhnke, Mrs. LeRoy.....1050 E. Maple, Mt. Pleasant
McArthur, Mrs. Stewart.....Rosebush
McCoy, Mrs. Franklin.....611 S. Kinney, Mt. Pleasant
Meyer, Mrs. Edwin G.....780 Argyle, Alma
Oldham, Mrs. Earle S.....Breckenridge
Ringer, Mrs. Paul.....1007 Watson, Mt. Pleasant
Rottschafer, Mrs. John.....715 Center, Mt. Pleasant
Waggoner, Mrs. Richard.....120 W. Center, St. Louis
Wallman, Mrs. Harry.....901 State, Alma
Wickert, Mrs. Leo R.....203 N. Fancher, Mt. Pleasant
Wood, Mrs. John M.....815 E. Maple, Mt. Pleasant

HOUGHTON-BARAGA-KEWEENAW COUNTIES

Aldrich, Mrs. A. D.....U. S. 41, Chassell
Aldrich, Mrs. A. B.....325 Harris Ave., Hancock
Aldrich, Mrs. Leonard C.....1609 E. Houghton Ave., Houghton
Bourland, Mrs. Phillip D.....134 Calumet Ave., Calumet
Burke, Mrs. John J.....102 Duncan Ave., Hubbell
Hillmer, Mrs. Raymond.....1 Algona, Painesdale
Hosking, Mrs. Frederick.....328 Florida St., Laurium
Janis, Mrs. Anton.....200 East St., Hancock
Kolb, Mrs. Frederick E.....128 Calumet Ave., Calumet
LaBine, Mrs. Alfred.....1019 College Ave., Houghton
Larson, Mrs. Forrest W.....1400 E. Houghton Ave., Houghton
Lepisto, Mrs. Victor....515 Lake Linden Ave., Laurium
Levin, Mrs. Simon.....1209 College Ave., Houghton
Lund, Mrs. Chester....1205 Calumet St., Lake Linden
Manthei, Mrs. Willard.....5426 Calumet St. Lake Linden
Murphy, Mrs. Percy J.....126 Calumet Ave., Calumet
Nolan, Mrs. Lewis E.....1033 Mine St., Calumet
Repola, Mrs. Kenneth.....338 Iroquis St., Laurium
Roche, Mrs. Andrew.....204 Pewabic St., Laurium
Smith, Mrs. Charles E.....White St., Hancock
Rupprecht, Mrs. C. H.....117 Fifth St., Calumet
Sloan, Mrs. Paul.....214 Clark St., Houghton
Wickliffe, Mrs. T. P.....1167 Calumet Ave., Calumet
Williams, Mrs. Marshall S.....1412 E. Houghton Ave., Houghton
Winkler, Mrs. Henry J.....Baraga County Hosp., L'Anse

HURON COUNTY

Bash, Mrs. Theodore.....Kinde
Dixon, Mrs. Ralph.....Pigeon
Elliott, Mrs. C. S.....Pigeon
Gettel, Mrs. Roy R.....Bad Axe
Herrington, Mrs. Willet.....Bad Axe
Oakes, Mrs. C. W.....Harbor Beach
Ritsema, Mrs. John.....Sebewaing
Schuerer, Mrs. Clare A.....Pigeon
Sorensen, Mrs. Maurice.....Elkton
Steinhardt, Mrs. E. E.....Bad Axe
Thompson, Mrs. J. E.....Caseville
Turner, Mrs. P. N.....Harbor Beach
Wible, Mrs. C. P.....Sebewaing

INGHAM COUNTY

Agate, Mrs. G. H.....1109 Southlawn, East Lansing
Alexander, Mrs. R. G.....Laingsburg
Altland, Mrs. J. K.....Mt. Hope Rd., RR.#2, Lansing
Asselin, Mrs. D. C.....1001 Glenhaven, East Lansing
Badgley, Mrs. W. O.....Waverly Hills Rd., Lansing
Baker, Mrs. Thomas.....1720 Windsor Pl., Lansing
Bates, Mrs. Richard.....326 Northlawn, East Lansing
Bauer, Mrs. T. I.....839 Wildwood, East Lansing
Behen, Mrs. W. G.....535 S. Capitol, Lansing
Behney, Mrs. C. A.....306 W. Madison, Lansing
Berens, Mrs. Burdette.....1434 Bassett, Lansing
Bevez, Mrs. Frank L.....3209 S. Cambridge Rd., Lansing
Bingham, Mrs. B. Wayne....1123 N. Hayford, Lansing
Bradford, Mrs. C. W.....832 Westlawn, East Lansing

Breakey, Mrs. Robert.....520 Westmoreland, Lansing
Briggs, Mrs. James A.....1817 Maple, Holt
Brown, Mrs. F. W.....706 Britten, Lansing
Brubaker, Mrs. E. W.....444 S. Verlinden, Lansing
Brucker, Mrs. K. B.....610 S. Walnut, Lansing
Burhans, Mrs. R. A.....973 Rosewood, East Lansing

Cairns, Mrs. D. A.....300 S. Washington, Mason
Calomeni, Mrs. A. D.....1523 W. Michigan, Lansing
Cameron, Mrs. W. J.....920 N. Capitol, Lansing
Carlson, Mrs. Ralph.....2710 Northwest Ave., Lansing
Carr, Mrs. E. I.....1915 Moores River Dr., Lansing
Casey, Mrs. Byron..337 Chesterfield Pkwy., East Lansing
Cheney, Mrs. W. D.....R. No. 2, Okemos
Christian, Mrs. L. G.....400 Everett, Lansing
Clark, Mrs. W. E.....809 Ash, Mason
Clinton, Mrs. G. R.....618 S. Jefferson, Mason
Combs, Mrs. Robert.....403 Butterfield, East Lansing
Comstock, Mrs. Howard.....819 Lantern Hill Dr., East Lansing
Cook, Mrs. R. J.....105 S. Jenison, Lansing
Cope, Mrs. H. E.....605 Westmoreland, Lansing
Cordes, Mrs. Jerome.....2209 Shawnee Trail, Okemos
Cowan, Mrs. John.....825 Touraine, East Lansing
Cross, Mrs. F. S.....432 Highland, Lansing
Cummings, Mrs. G. D.....511 Westmoreland, Lansing
Cushman, Mrs. F.....408 N. Sycamore, Lansing

Darling, Mrs. L. H.....431 S. Verlinden, Lansing
Davenport, Mrs. C. S.....320 Sycamore, Lansing
Dawe, Mrs. Douglas.....935 Rosewood, East Lansing
Dean, Mrs. Carlton....152 Maplewood Dr., East Lansing
DeVries, Mrs. C. F.....Delta River Dr., Lansing
Doyle, Mrs. C. P.....215 N. Logan, Lansing
Drolett, Mrs. Don.....2408 Arlington Rd., Lansing
Drolett, Mrs. F. J.....1623 Inverness, Lansing
Drolett, Mrs. L. A.....228 S. Jenison, Lansing
Dunn, Mrs. F. M.....Whitehills, East Lansing

Feeney, Mrs. K. J.....822 Durant, Lansing
Feurig, Mrs. James....321 Kensington Rd., East Lansing
Finch, Mrs. R. L.....1538 Forbes, Lansing
Folkers, Mrs. L.....991 Rosewood, East Lansing
Fortino, Mrs. S. P.....444 West, Lansing
Fosget, Mrs. Wilbur.....210 E. Hillsdale, Lansing
Freeland, Mrs. O. H.....602 N. Hogsback Rd., Mason
French, Mrs. H. L.....Delta River Dr., Lansing
Fryer, Mrs. Douglas L.....726 Touraine, East Lansing

Gardner, Mrs. C. B.....1815 Moores River Dr., Lansing
Garlinghouse, Mrs. A.....922 Green St., Lansing
George, Mrs. Harry.....444 Spartan Ave., East Lansing
Goldner, Mrs. R. E.....744 Verlinden, Lansing
Govons, Mrs. Sidney.....1626 Kalamazoo, Lansing
Grost, Mrs. James.....St. Johns

Hames, Mrs. R. E.....412 N. Clemens, Lansing
Harebottle, Mrs. Norman....Rt. #1, Box 125, Lansing
Harrold, Mrs. J. F.....1713 Osborn, Lansing
Harris, Mrs. H. W.....1400 Wellington, Lansing
Harrison, Mrs. Wm. H.....1306 Hyland, Lansing
Hart, Mrs. L. C.....119 W. Lenawee, Lansing
Hayes, Mrs. R. E.....1622 Sunnyside, Lansing
Hayford, Mrs. Wm. D.....1006 Wildwood Dr., East Lansing
Haze, Mrs. H. A.....Hotel Olds, Lansing
Heald, Mrs. Gordon.....Whitehills, East Lansing
Heckert, Mrs. F. B.....Delta River Dr., Box 199, Lansing
Heckert, Mrs. J. K...1418 E. Grand River, East Lansing
Heerdt, Mrs. Mark.....4550 Ottawa Dr., Okemos
Henderson, Mrs. Norman.....826 Sunset Lane, East Lansing
Henry, Mrs. Robert.....1632 Blair, Lansing
Hermes, Mrs. E. J.....604 W. Willow, Lansing
Heustis, Mrs. A. E.....410 Cowley, East Lansing
Himmelberger, Mrs. R. J.....227 West, Lansing
Hisco, Mrs. D. Bonta.....152 Maplewood Dr., East Lansing
Hodges, Mrs. K.....421 West, Lansing
Hoffer, Mrs. William E.....327 Shepard, Lansing
Hofstra, Mrs. Raymond.....1629 Berkeley Dr., Lansing
Holland, Mrs. C. F.....166 Orchard, East Lansing
Holm, Mrs. M. L.....912 W. Allegan, Lansing
Huggett, Mrs. C. C.....1531 Osborne, Lansing

Isbister, Mrs. J.....104 S. Jenison, Lansing

Jacob, Mrs. S.....320 Curtis Rd., East Lansing
Johnson, Mrs. David B.....2015 Pawnee Tr., Okemos
Johnson, Mrs. H. T.....817 N. Foster, Lansing
Johnson, Mrs. K. H.....1539 Spencer, Lansing
Johnson, Mrs. Richard.....623 Walbridge Rd., East Lansing
Jones, Mrs. F. A., Sr.....1025 Roxburgh, East Lansing
Jones, Mrs. F. A., Jr.....1025 Roxburgh, East Lansing
June, Mrs. R. C.....426 S. Walnut, Lansing

Kahn, Mrs. David.....1519 Pershing, Lansing
Kalmbach, Mrs. R. E.....1600 Wellington Rd., Lansing
Katlein, Mrs. Stanley.....4172 Dallas, Holt
Keim, Mrs. C. D.....1415 W. Kalamazoo, Lansing
Kelly, Mrs. Wm.....403 S. Sycamore, Lansing
Klunzinger, Mrs. W.....810 Roxburgh, East Lansing
Kraft, Mrs. L. C.....209 S. Main, Leslie

Landy, Mrs. G. R.....1023 Jenison, Lansing
Lange, Mrs. P. F.....1652 Sunnyside, Lansing
LeDuc, Mrs. D.....405 University Dr., East Lansing
LeVett, Mrs. H. L.....431 Kedzie, East Lansing
Leshock, Mrs. J. C.....249 Milford, East Lansing
Lewis, Mrs. Clayton.....727 Audubon, East Lansing
Long, Mrs. Charles.....1831 Roseland, East Lansing
Loree, Mrs. M. C.....1615 Abbott, East Lansing
Lucas, Mrs. T. A.....2826 Cambridge Rd., Lansing
Ludlum, Mrs. L. C.....1126 W. Saginaw, Lansing

Martin, Mrs. W.....4765 Nakoma Dr., Okemos
McCorvie, Mrs. C. R.....12A Hillcrest Village, East Lansing
McCorvie, Mrs. Donald....610 E. Riverside, Williamston
McCrumb, Mrs. Ray.....1216 Parkdale, Lansing
McGillicuddy, Mrs. O. B.....407 Wallbridge Dr., East Lansing
McGillicuddy, Mrs. R.....528 Oakwood, East Lansing
McIntyre, Mrs. J. E.....600 S. Grand, Lansing
McNamara, Mrs. B. E.....804 W. Ottawa, Lansing
Meade, Mrs. Wm.....535 Ardson, East Lansing
Melick, Mrs. R. C.....4338 Mar-Moor Dr., Lansing
Menzies, Mrs. C. G.....734 Linden, East Lansing
Mercer, Mrs. W. E.....909 Glenhaven, East Lansing
Monfort, Mrs. Robert.....123 Beech, East Lansing
Morrow, Mrs. R. J.....411 W. Ottawa, Lansing

Nakfoor, Mrs. Eugene C.....707½ Banghart, Lansing
Neering, Mrs. J. C.....517 Carey, Lansing
Niland, Mrs. Paul.....1222 Blake St., Lansing

Ochsner, Mrs. P.....3129 Cambridge Rd., Lansing
Osborn, Mrs. Sam.....528 W. Ottawa, Lansing

Packer, Mrs. John H.....612 Everett Dr., Lansing
Paine, Mrs. Wm.....724 Rosewood, East Lansing
Palmer, Mrs. R. E.....535½ S. Capitol, Lansing
Parker, Mrs. Earl.....Leslie
Peets, Mrs. R. C.....2266 Shawnee Trails, Okemos
Philips, Mrs. David.....333 N. Chestnut, Lansing
Phillips, Mrs. R. W.....W. Yakely Hall, East Lansing
Pinkham, Mrs. R. A.....535 N. Capitol, Lansing
Plesscher, Mrs. W. H.....2048 Lagoon Dr., Okemos
Pomeroy, Mrs. R. W.....504 Division, East Lansing
Poppen, Mrs. C. J.....1057 Roxburgh Rd., East Lansing
Prall, Mrs. H. J.....214 W. Main, Lansing

Randall, Mrs. O. M.....1805 Moores River Dr., Lansing
Richards, Mrs. Frank.....311 Kensington Rd., East Lansing
Robson, Mrs. E. J.....728 Audubon, East Lansing
Rollstin, Mrs. Robert A.....4796 Ardmore Rd., Okemos
Rozan, Mrs. Jos.....1142 Blake Ave., Lansing
Ruhmkorff, Mrs. R. F.....1060 Glenhaven, East Lansing
Rulison, Mrs. J. G.....2100 Colonial Plaza, Lansing
Russell, Mrs. Sherwood.....St. John's
Rutledge, Mrs. S.....1035 Northlawn, East Lansing

Sander, Mrs. J. F.....4275 Dobie Rd., Okemos
Scallin, Mrs. J. J.....301 S. Clemens, Lansing

Schmidt, Mrs. Harry J.....1416 N. Hayford, Lansing
Schultz, Mrs. A.....4646 Ottawa Dr., Okemos
Shapiro, Mrs. H. D.....1236 N. Downer, Lansing
Sharp, Mrs. M. S.....950 Audubon, East Lansing
Shaw, Mrs. Milton.....415 West St., Lansing
Sherman, Mrs. Geo.....504 Cowley, East Lansing
Sichler, Mrs. H. G.....443 Clifton Blvd., East Lansing
Siegel, Mrs. David.....1209 Parkdale, Lansing
Silverman, Mrs. I. E.....1602 Clifton St., Lansing
Sleight, Mrs. J. L.....3001 Westchester Rd., Lansing
Smith, Mrs. A. V.....S. Jackson Rd., Mason
Smookler, Mrs. Bernard.....1139 Gould Rd., Lansing
Snell, Mrs. D. M.....312 N. Harrison, East Lansing
Spagnuola, Mrs. A. J.....2304 Marion, Lansing
Spaulding, Mrs. Ronald.....5004 Tressa Dr., Lansing
Spencer, Mrs. C. T.....1134 Southlawn, East Lansing
Spencer, Mrs. P. C.....602 Northlawn, East Lansing
Stehman, Mrs. V. A.....4572 Ottawa Dr., Okemos
Steiner, Mrs. A. A.....R. No. 3, Grand Ledge
Steiner, Mrs. S. D.....413 Clarendon, East Lansing
Stiles, Mrs. F.....615 Northlawn, East Lansing
Stimson, Mrs. P. R.....1841 Clark Rd., R.#4, Lansing
Stone, Mrs. Ben.....736 Rosewood, East Lansing
Stow, Mrs. Robert.....1063 Rosewood, East Lansing
Strauss, Mrs. P. C.....3813 W. Willow, Lansing
Stringer, Mrs. C. J.....1701 W. Kalamazoo St., Lansing
Stucky, Mrs. G. C.....624 W. Ottawa, Lansing
Sundell, Mrs. E. C.....2030 Pawnee Tr., Okemos
Swartz, Mrs. F. C.....500 Kedzie, East Lansing

Tamblyn, Mrs. F. W.....Waverly Rd., R. #3, Lansing
Thaden, Mrs. D. W.....642 Gunson, East Lansing
Toothaker, Mrs. K. W.....1609 W. Michigan, Lansing
Towne, Mrs. L. C.....701 Britten, Lansing
Trescott, Mrs. R. F.....218 Chesterfield Pkwy., East Lansing
Trimby, Mrs. R.....611 Whitehills, East Lansing
Troost, Mrs. F. L.....4395 W. Delhi, Holt

VanderZalm, Mrs. T. P.....1452 Cambridge Rd., Lansing
Venier, Mrs. J. H.....544 Division, East Lansing

Wadley, Mrs. R.....930 Roxburgh, East Lansing
Wainright, Mrs. J. W.....433 Haslett Rd., East Lansing
Walker, Mrs. Leo.....1302 Pershing Dr., Lansing
Warford, Mrs. J. T.....215 S. Butler, Lansing
Wellman, Mrs. J. M.....1809 W. Hillsdale, Lansing
Wilensky, Mrs. T.....527 W. Oakwood, East Lansing
Wiley, Mrs. H. M.....402 N. Jenison, Lansing
Willson, Mrs. H. S.....435 McPherson, Lansing
Wolcott, Mrs. Lester E.....2377 Seminole Dr., Okemos
Worthington, Mrs. Ralph.....717 Britten, Lansing

IONIA-MONTCALM COUNTIES

Buck, Mrs. Jack H.....118 N. Jefferson, Ionia
Campbell, Mrs. Richard E.....340 E. Main, Ionia
Foust, Mrs. Joseph C.....442 Baldie, Ionia
Gerrick, Mrs. Paul.....Ionia State Hosp., Ionia
Hoffs, Mrs. M. A.....Lake Odossa
Kopchich, Mrs. Joseph.....Muir
Leider, Mrs. Thomas.....722 W. Main, Ionia
Minnick, Mrs. William.....Belding
Slagh, Mrs. Milton.....Saranac
Smith, Mrs. Robert O.....724 Roselawn Dr., Ionia
Socha, Mrs. Edmund S.....N. North State Rd., Ionia
Tannheimer, Mrs. John F.....138 E. Washington, Ionia
Van Dam, Mrs. Forrest R.....Ionia State Hosp., Ionia

JACKSON COUNTY

Abraham, Mrs. Arnold O.....Hudson
Adams, Mrs. Ellis W.....749 Oakridge, Jackson
Ahronheim, Mrs. Jacques H.....1410 Greenwood Ave., Jackson
Appel, Mrs. Saul.....808 S. Durand, Jackson
Baker, Mrs. George.....Parma
Beckwith, Mrs. Sidney.....Stockbridge
Brashares, Mrs. Zane.....Brooklyn
Bullen, Mrs. G. Rex.....418 Third St., Jackson
Clark, Mrs. Corwin.....1046 Fourth St., Jackson
Cooley, Mrs. Charles W.....315 S. Wisner, Jackson
Cooley, Mrs. Randall M.....141 E. Robinson St., Jackson
Corley, Mrs. Cecil.....800 Crescent Rd., Jackson
Corley, Mrs. Robert W.....1104 W. Michigan, Jackson
Cox, Mrs. Ferdinand.....1601 Fourth St., Jackson
Daly, Mrs. Byrne.....709 Oakridge Dr., Jackson
DeMay, Mrs. Cuthbert.....901 Albright Dr., Jackson
DeMay, Mrs. John.....1204 Third St., Jackson
Deming, Mrs. Richard.....1406 W. Washington, Jackson
Dickman, Mrs. Harry M.....Hudson
Douglas, Mrs. Edward H.....924 Cooper St., Jackson
Faust, Mrs. W. L.....Grass Lake
Filip, Mrs. Hypolite K.....755 W. Michigan, Jackson
Finton, Mrs. Robert E.....1812 Grovedale, Jackson
Finton, Mrs. Walter L.....1502 Carlton Blvd., Jackson
Growt, Mrs. B. N.....Addison
Hackett, Mrs. Thomas.....3160 Reynolds Rd., Jackson
Hanft, Mrs. Cyril F.....Springport
Hardie, Mrs. George C.....218 Fourth, Jackson
Hicks, Mrs. Glen C.....1009 Wildwood, Jackson
Holst, Mrs. John.....1437 Wickwire Rd., Jackson
Hunt, Mrs. Maurice R.....2534 Francis St., Jackson
Joerin, Mrs. William A.....734 W. Franklin, Jackson
Karr, Mrs. Jean P.....844 Woodbine, Jackson
Keefer, Mrs. Albert H.....Concord
Kempton, Mrs. George B.....748 Crescent, Jackson
Kiessling, Mrs. A. J.....1850 Schaffer Dr,. Jackson
Kline, Mrs. Starr L.....3525 Jefferson Rd., Clark Lake
Kobs, Mrs. Robert.....513 Seventeenth St., Jackson
Kraft, Mrs. Lester C.....Leslie
Kudner, Mrs. Don F.....1300 W. Franklin, Jackson
Lake, Mrs. Edward C.....786 Bloomfield Blvd., Jackson
Landron, Mrs. Daniel L.....4633 Page Ave., Jackson
Lenz, Mrs. Charles R.....1833 Shoemaker Dr., Jackson
Lewis, Mrs. Elmore.....609 S. Wisner, Jackson
Linden, Mrs. Victor E.....5712 Brown's Lake Rd., Jackson
Ludwick, Mrs. John E.....6220 Brooklyn Rd., Jackson
Ludwick, Mrs. John P.....833 Westwood Blvd., Jackson
McGarvey, Mrs. Edward.....319 S. Higby, Jackson
McLaughlin, Mrs. Miar J.....6300 Brown's Lake Rd., Jackson
McLaughlin, Mrs. John.....1609 W. Franklin, Jackson
McLauthlin, Mrs. Herbery.....200 S. Higby, Jackson
Meads, Mrs. Jason B.....1714 Fourth St., Jackson
Medlar, Mrs. Robert E.....1202 W. Franklin, Jackson
Morelli, Mrs. Lorenzo.....514 S. Brown, Jackson
Muhich, Mrs. R. A.....2466 Emmons Rd., Jackson
Munro, Mrs. Nathan D.....417 Edwards Ave., Jackson
Murphy, Mrs. Bernard M.....729 Oakdale, Jackson
Newton, Mrs. Ray E.....3124 Horton Rd., Jackson
Olesky, Mrs. Stanley P.....744 W. Michigan Ave., Jackson
Olsen, Mrs. Lloyd L.....1410 W. Washington, Jackson
Oster, Mrs. Harold.....1218 Greenwood, Jackson
Otis, Mrs. Grant L.....922 Oakgrove Rd., Jaskson
Parker, Mrs. Earl E.....Leslie
Payne, Mrs. Andrew K.....914 S. Brown, Jackson
Phillips, Mrs. George.....326 W. Cortland, Jackson
Porter, Mrs. Horace W.....1008 Carlton Blvd., Jackson
Pray, Mrs. Frank F.....310 Steward St., Jackson
Preston, Mrs. Joe.....647 Commonwealth, Jackson
Rice, Mrs. John W.....705 Bloomfield Blvd., Jackson
Ries, Mrs. Richard G.....824 Brown's Lake, Jackson
Riley, Mrs. Phillip.....205 W. Franklin, Jackson
Riley, Mrs. Phillip, Jr.....1409 W. Franklin, Jackson
Sargent, Mrs. Leland E.....114 N. Thompson, Jackson
Sautter, Mrs. William.....Horton

Schmidt, Mrs. Theophile..1414 W. Washington, Jackson
Scott, Mrs. John A.....119 S. Bowen, Jackson
Shaeffer, Mrs. Dale.....206 S. Wisner, Jackson
Shaeffer, Mrs. Arthur.....120 S. Durand, Jackson
Sher, Mrs. David B.....956 Cooper St., Jackson
Sill, Mrs. Henry W.....214 S. Durand, Jackson
Sirhal, Mrs. Alfred.....560 N. Shore Dr., Clark Lake
Smith, Mrs. Dean A.....1205 W. Washington, Jackson
Stackable, Mrs. W. R.....727 Cristy, Jackson
Stewart, Mrs. Lewis L.....220 Summit, Jackson
Stolberg, Mrs. Carl A.....828 Oakridge, Jackson
Stone, Mrs. Ethon L.....1011 S. Brown, Jackson

Tate, Mrs. Cyril E.....1315 Francis, Jackson
Taylor, Mrs. Ross V.....800 Grinnell, Jackson
Thayer, Mrs. Earl A.....2018 Spring Arbor Rd., Jackson
Thompson, Mrs. Tom.....200 Fourth St., Jackson
Torwick, Mrs. Edward T.....1107 Union St., Jackson
Townsend, Mrs. Jas. W.....108 Hague, Vandercook Lake

VanSchoick, Mrs. Frank.....1301 Greenwood, Jackson
VanSchoick, Mrs. John.....Hanover
VanWagner, Mrs. Fritz.....1232 First St., Jackson
Vivirski, Mrs. Edward E.....603 Elm St., Jackson

Weddon, Mrs. Edward R.....Stockbridge
Wholihan, Mrs. John.....602 W. Michigan, Jackson
Wickham, Mrs. Woodward.....1902 Fourth St., Jackson
Wille, Mrs. Warren S.....1346 Kathmar, Jackson
Young, Mrs. Allen.....118 Moore, Jackson

KALAMAZOO COUNTY

Alexander, Mrs. C. A.....118 W. North, Kalamazoo
Andrews, Mrs. Sherman..2326 Springhill Dr., Kalamazoo
Appel, Mrs. Ben.....516 Montrose, Kalamazoo
Appel, Mrs. William.....1906 Dorchester, Kalamazoo

Banner, Mrs. L. R.....Long Road, Kalamazoo
Barak, Mrs. Herbert.....2122 Chevy Chase, Kalamazoo
Barry, Mrs. Manley....9824 Gull Lake Dr., W. Richland
Betz, Mrs. Eldean.....1521 Timberlane, Kalamazoo
Birch, Mrs. Vera.....1539 Grand Ave., Kalamazoo
Borgman, Mrs. Wallace....2252 Chevy Chase, Kalamazoo
Breneman, Mrs. James.....25 Pearl St., Galesburg
Brown, Mrs. Irmel.....1628 Cambridge Rd., Kalamazoo
Brue, Mrs. Peter Paul.....1009 Cambridge Dr., Kalamazoo
Burbidge, Mrs. Earl.....359 Park Ave., Parchment
Burrell, Mrs. Robert....2017 Hillsdale Ave., Kalamazoo

Callander, Mrs. C. Glen.....4418 Lake Forest Dr., Kalamazoo
Cashen, Mrs. Russell.....1716 Royce, Kalamazoo
Chrest, Mrs. Clarence....2740 Bronson Blvd., Kalamazoo
Clement, Mrs. F. L.....2227 South Rose, Kalamazoo
Cobb, Mrs. H. R.....3403 Knox, Kalamazoo
Conrad, Mrs. Maynard....1509 Timberlane, Kalamazoo
Cook, Mrs. Ralph G.....615 Clinton, Kalamazoo
Cooper, Mrs. Paul.....4326 Oakland Dr., Kalamazoo
Crane, Mrs. Bart.....420 S. Rose., Kalamazoo
Crawford, Mrs. Kenneth....1532 Grand Ave., Kalamazoo
Creager, Mrs. Ray O.....907 Wheaton, Kalamazoo
Cretsinger, Mrs. Francis.....2012 Chevy Chase Blvd. Kalamazoo
Currier, Mrs. R. Keith.....1223 Kilgore, Kalamazoo

Dana, Mrs. Robert.....2240 Sheffield Dr., Kalamazoo
Decker, Mrs. William....1145 Oakland Dr., Kalamazoo
Delbert, Mrs. Stewart.....410 Edgemoor, Kalamazoo
DeLong, Mrs. Robert.....2215 Crane, Kalamazoo
DePree, Mrs. Harold.....708 Whites Rd., Kalamazoo
Dew, Mrs. Robert.....2253 Sheffield Dr., Kalamazoo
Dick, Mrs. Leo.....428 Stuart, Kalamazoo
Doezema, Mrs. Edward.....802 Grand Pre, Kalamazoo
Dowd, Mrs. Bennard.....1415 Henderson, Kalamazoo
Doyle, Mrs. Fred.....3240 Bronson Blvd, Kalamazoo

Endrei, Mrs. Arisztid....Box A, State Hosp., Kaalmazoo
Estill, Mrs. Don.....1605 N. Church St., Kalamazoo

Fast, Mrs. Ralph.....1425 Low Rd., Kalamazoo
Fath, Mrs. August.....5029 Angling Rd., Kalamazoo
Finton, Mrs. Max.....1418 W. Kilgore, Kalamazoo
Flunt, Mrs. Roman.....State Hospital, Kalamazoo
Fopeano, Mrs. John.....2121 Sheffield Dr., Kalamazoo
French, Mrs. Merle.....1128 Miles, Kalamazoo
Fulkerson, Mrs. Clark.....425 S. Westnedge, Kalamazoo
Fuller, Mrs. Paul.....4192 Saratoga, Kalamazoo

Gardner, Mrs. Carl.....404 Parkwood, Kalamazoo
Gerstner, Mrs. Louis.....2425 Law, Kalamazoo
Gladstone, Mrs. William....4322 Sunnybrook, Kalamazoo
Glaser, Mrs. Dan.....141 So. Prairie, Kalamazoo
Green, Mrs. William.....2622 Alta Vista, Kalamazoo
Grekin, Mrs. Robert.....1522 Southern, Kalamazoo
Gremel, Mrs. Norman.....3103 Grace Rd., Kalamazoo

Haddock, Mrs. Douglas.....4426 Lake Forest Dr., Kalamazoo
Hammer, Mrs. John.....121 Monroe, Kalamazoo
Hanson, Mrs. Curtis.....1207 Maple Ave., Kalamazoo
Harrell, Mrs. Frank.....120 N. Arlington, Kalamazoo
Harrelson, Mrs. Wm...3625 Old Colony Rd., Kalamazoo
Hayner, Mrs. Russell.....718 Royce, Kalamazoo
Heersma, Mrs. H. Sidney.....1923 Winchell, Kalamazoo
Heinle, Mrs. Robert.....2517 Bronson Blvd., Kalamazoo
Herbert, Mrs. Walter....2777 Highland Pk.. Kalamazoo
Hersey, Mrs. E. Freeman.....4407 Bronson Blvd., Kalamazoo
Hildreth, Mrs. Roscoe.....226 Grandview, Kalamazoo
Hodgman, Mrs. A. B.....1601 Grand Ave., Kalamazoo
Hoebeke, Mrs. William.....1408 Long Road, Kalamazoo
Holder, Mrs. C. O.....1207 Oakland Dr., Kalamazoo
Howard, Mrs. Grant.....2025 Chevy Chase Blvd., Kalamazoo
Howard, Mrs. W. H.....1602 Gull Road, Kalamazoo
Hubbell, Mrs. Reader....3538 Bronson Blvd., Kalamazoo
Hume, Mrs. Robert.....1115 Crown, Kalamazoo

Irwin, Mrs. William.....2333 Sheffield Dr., Kalamazoo

Jackson, Mrs. Howard.....1224 Hillcrest, Kalamazoo
Jennings, Mrs. Robert.....814 Oakland Dr., Kalamazoo
Jennings, Mrs. W. O.....1136 Long Road, Kalamazoo

Kavanaugh, Mrs. John W.....826 Dwillard, Kalamazoo
Kavanaugh, Mrs. William....1412 Vale View, Kalamazoo
Kercher, Mrs. Ervin.....1211 Cherry St., Kalamazoo
Kilgore, Mrs. Robert..5140 Morningside Dr., Kalamazoo
Klerk, Mrs. William.....2421 Waite Ave., Kalamazoo
Koestner, Mrs. Paul.....742 Norton Dr., Kalamazoo

Lavender, Mrs. Howard.....605 Norton Dr., Kalamazoo
Lawrence, Mrs. James.....1409 Henderson, Kalamazoo
Lemmer, Mrs. Richard..2933 Bronson Blvd., Kalamazoo
Littig, Mrs. John.....1708 Embury, Kalamazoo
Locklin, Mrs. Kaye... 4444 Lake Forest Dr., Kalamazoo
Louisell, Mrs. James.....2703 Russet Dr., Kalamazoo
Loynd, Mrs. James.....4041 Hillandale, Kalamazoo

McCarthy, Mrs. J. S.....1005 Oakland Dr., Kalamazoo
McManus, Mrs.....1416 Academy, Kalamazoo
MacDonald, Mrs. Marshall.....2824 Hill'n'brook, Kalamazoo
MacGregor, Mrs. John.....226 Church St., Parchment
Machin, Mrs. Harold....2348 Tipperary Rd., Kalamazoo
Malone, Mrs. James.....3731 Bronson Blvd., Kalamazoo
Margolis, Mrs. Fred.....2134 Waite Ave., Kalamazoo
Marshall, Mrs. Don.....2344 Sheffield, Kalamazoo
Marshall, Mrs. William.....160 Edgemoor, Kalamazoo
Martens, Mrs. Irwin.....517 Sturgis Rd., Parchment
May, Mrs. Donald.....1327 Maple, Kalamazoo
Mellis, Mrs. Robert.....2833 Grace, Kalamazoo
Moe, Mrs. Rex.....4011 Hillandale Dr., Kalamazoo
Morter, Mrs. R. A.....2421 Sheffield, Kalamazoo

Neerkin, Mrs. John.....2315 Lorraine, Kalamazoo
Nibbelink, Mrs. Benjamin.....2149 Treehaven Dr., Kalamazoo
Nicholson, Mrs. Robert.....2229 Treehaven Dr., Kalamazoo

O'Donovan, Mrs. C. J.....2659 Sunnybrook Dr., Kalamazoo
Overby, Mrs. Charles.....State Hospital, Kalamazoo
Patmos, Mrs. Martin.....1207 Cherry, Kalamazoo
Peake, Mrs. Charles.....1541 W. Kilgore, Kalamazoo
Pearson, Mrs. Edwin O.....933 W. Inkster, Kalamazoo
Peelen, Mrs. Matthew.....156 Monroe, Kalamazoo
Peelen, Mrs. William.....943 W. Inkster, Kalamazoo
Perry, Mrs. C. W.....2030 Waite, Kalamazoo
Pingham, Mrs. Raymond.....1203 Miles, Kalamazoo
Pullon, Mrs. Alton.....3114 Bronson Blvd., Kalamazoo
Rasmussen, Mrs. Leo.....205 N. Michigan, Vicksburg
Rigterink, Mrs. Gerald....2424 S. Park St., Kalamazoo
Roberts, Mrs. M. S.....118 Bulkley Rd., Kalamazoo
Rockwell, Mrs. Donald.....1227 Jefferson, Kalamazoo
Rogers, Mrs. R. J.....108 Mill St., Vicksburg
Rutherford, Mrs. Paul S.....106 Thompson St., Kalamazoo
Ryan, Mrs. Fred C.....2511 Glenwood Dr., Kalamazoo
Scholten, Mrs. Roger.....930 W. Inkster, Kalamazoo
Schrier, Mrs. C. M.....1223 Oakland Dr., Kalamazoo
Scott, Mrs. William.....2315 Angling Road, Kalamazoo
Shook, Mrs. Ralph.....2211 Benjamin, Kalamazoo
Siemsen, Mrs. Walter.....3424 Old Colony Rd., Kalamazoo
Sisk, Mrs. Wilfred.....2411 Outlook, Kalamazoo
Slatmyer, Mrs. Karel.....118 S. Prairie, Kalamazoo
Smith, Mrs. T. C.....1215 Oakland Dr., Kalamazoo
Sofen, Mrs. M. B.....901 Edgmoor, Kalamazoo
Southworth, Mrs. Maynard.....Schoolcraft
Stewart, Mrs. Robert.....2407 Fairfield, Kalamazoo
Stewart, Mrs. Wm.....4419 Lake Forest Dr., Kalamazoo
Stiller, Mrs. Anthony.....1235 N. Hillandale Dr., Kalamazoo
Stryker, Mrs. Homer.....903 Edgemoor, Kalamazoo
Talley, Mrs. Robert.....6603 Mastenbrook, Kalamazoo
Upjohn, Mrs. Gifford....2230 Glenwood Dr., Kalamazoo
VanderVelde, Mrs. Kenneth....2203 Sheffield, Kalamazoo
Verhage, Mrs. Martin..1748 Greenlawn Ave., Kalamazoo
Volderauer, Mrs. John.....905 Edgmoor, Kalamazoo
Warnke, Mrs. Robert.....3012 Kenilworth, Kalamazoo
Weadon, Mrs. Preston.....2255 Tipperary, Kalamazoo
Wickliffe, Mrs. Robert.....2226 Sheffield, Kalamazoo
Williamson, Mrs. Edwin.....6242 Douglas, Kalamazoo
Wu, Mrs. Jack Foy.....3719 Duke St., Kalamazoo
Youngs, Mrs. C. A.....416 S. Burdick, Kalamazoo

KENT COUNTY

Aitken, Mrs. Geo. T.....936 San Lucia, S.E., Grand Rapids
Albers, Mrs. G. Donald.....1838 Argentina, S.E., Grand Rapids
Aldridge, Mrs. Chas. W.....1574 Mackinaw, S.E., Grand Rapids
Andre, Mrs. Harvey M.....950 Cambridge, S.E., Grand Rapids
Ballard, Mrs. M. S.....9 College, N.E., Grand Rapids
Balyeat, Mrs. Gordon W.....150 Morningside, S.E., Grand Rapids
Barofsky, Mrs. Gerald F.....2944 Hall, S.E., Grand Rapids
Bartek, Mrs. Gordon L.....1115 Kenesaw, S.E., Grand Rapids
Basinger, Mrs. Clair.....420 Rosewood, S.E., Grand Rapids
Batts, Mrs. Martin.....246 Aurora, S.E., Grand Rapids
Baum, Mrs. William.....2739 Oakwood, S.E., Grand Rapids
Beaton, Mrs. James H.....1556 Pontiac, S.E., Grand Rapids
Beeman, Mrs. Carl B...3040 Bonnell, S.E., Grand Rapids
Beets, Mrs. Clarence..2221 Jefferson, S.E., Grand Rapids
Bell, Mrs. C. M.....3121 Oak Hollow, S.E., Grand Rapids
Benjamin, Mrs. Howard G.....500 Cambridge, S.E., Grand Rapids
Bennett, Mrs. W. Bruce.....1015 Rosalie, N.W., Grand Rapids
Benson, Mrs. Roland R.....1578 Pontiac, S.E., Grand Rapids
Bignall, Mrs. C. Rexford.....1134 Conlon, S.E., Grand Rapids
Blackburn, Mrs. Henry M.....2401 Breton, S.E., Grand Rapids
Blocksma, Mrs. Ralph.....1529 Blythecourt, N.W., Grand Rapids
Boelkins, Mrs. Richard C.....834 Giddings, S.E., Grand Rapids
Boersma, Mrs. Donald.....920 Chippewa, S.E., Grand Rapids
Bonzelaar, Mrs. Marvin.....1612 Woodward, S.E., Grand Rapids
Booher, Mrs. Craig E.....2609 Albert, S.E., Grand Rapids
Bowman, Mrs. Harold E.....2209 Wilshire, S.E., Grand Rapids
Boyce, Mrs. David C.....2310 Estelle, S.E., Grand Rapids
Brace, Mrs. Fred C...2311 Academy, N.E., Grand Rapids
Braunschneider, Mrs. G. Edw.....2231 Clover, N.W., Grand Rapids
Brink, Mrs. J. Russell.....1901 Argentina, S.E., Grand Rapids
Brook, Mrs. J. D.....65 S. Wilson, Grandville
Bull, Mrs. Frank.....65 S. State, Sparta
Burroughs, Mrs. Frank.....159 S. Ottawa, Grandville
Capps, Mrs. Sam.....2059 Wilshire, S.E., Grand Rapids
Carpenter, Mrs. Luther.....1818 Argentina, S.E., Grand Rapids
Caukin, Mrs. Howard.....1310 Woodcliff, S.E., Grand Rapids
Cayce, Mrs. William.....640 Kent Hills Rd., N.E., Grand Rapids
Champion, Mrs. John.....2222 Englewood, S.E., Grand Rapids
Chandler, Mrs. Donald.....3347 E. Belt Line, N.E., Grand Rapids
Chase, Mrs. R. Jack....849 Maxwell, S.E., Grand Rapids
Clahassey, Mrs. Erwin G.....427 Mulford Dr., S.E., Grand Rapids
Clawson, Mrs. Carroll.....748 Ethel, S.E., Grand Rapids
Claytor, Mrs. Robert.....2032 Coit, N.E., Grand Rapids
Colvin, Mrs. W. G.....7830 Valhalla Dr., Dutton
Crane, Mrs. Harold D.....2221 Madison, S.E., Grand Rapids
Cremer, Mrs. John A.....14115 Ironwood Dr., Marne
Crissman, Mrs. Richard K.....7525 Alaska, Caledonia
Cuncannon, Mrs. M. Edw.....1745 Eastern, S.E., Grand Rapids
Currier, Mrs. Fred P.....955 Floral, S.E., Grand Rapids
Damstra, Mrs. Harold D.....1022 Santa Cruz, S.E., Grand Rapids
Dassel, Mrs. Paul M.....2641 Boston, S.E., Grand Rapids
Davis, Mrs. David B.....266 Pettis Rd., Ada
Dawson, Mrs. W. Douglas.....1021 Iroquois, S.E., Grand Rapids
DeBoer, Mrs. Clarence.....191 Elwood, Grandville
DeBoer, Mrs. Guy W.....45 Maryland, N.E., Grand Rapids
DeMaagd, Mrs. G.....185 S. Monroe, Rockford
DeMol, Mrs. Richard..2425 College, S.E., Grand Rapids
Denham, Mrs. R. H...535 Plymouth, S.E., Grand Rapids
DeVel, Mrs. Leon.....739 Plymouth, S.E., Grand Rapids
DeVries, Mrs. Daniel..82 Maryland, N.E., Grand Rapids
Dewey, Mrs. Kent A...3205 Bonnell, S.E., Grand Rapids
DeYoung, Mrs. Maynard.....1505 12 Mile Rd., Sparta
Diskey, Mrs. Donald.....1911 Lake Michigan, N.W., Grand Rapids
Dixon, Mrs. Willis L., Sr.....420 E. Fulton, Grand Rapids
Dixon, Mrs. Willis L.....2335 Boston, S.E., Grand Rapids

Docter, Mrs. Luebert.....3496 Lake Dr., S.E., Grand Rapids
Doyle, Mrs. John L.....2438 Paris, S.E., Grand Rapids
Droste, Mrs. James....1545 Seminole, S.E., Grand Rapids
Dyer, Mrs. David.....550 Morris, S.E., Grand Rapids
Eaton, Mrs. Robert M...243 Aurora, S.E., Grand Rapids
Eggleston, Mrs. H. R.....117 Page, N.E., Grand Rapids
Eckmann, Mrs. Bertram..734 Fuller, N.E., Grand Rapids
Eldersveld, Mrs. Herman C.....977 Powers, N.W., Grand Rapids
Failing, Mrs. John F.....2617 Lake Michigan Dr., N.W., Grand Rapids
Falbisaner, Mrs. Geo.....2527 Plainfield, N.E., Grand Rapids
Farber, Mrs. Chas. E...2930 Bonnell, S.E., Grand Rapids
Faust, Mrs. L. W.....405 Manhattan, S.E., Grand Rapids
Feldhaus, Mrs. Henry..2439 Berwyk, S.E., Grand Rapids
Fellows, Mrs. Kenneth E.....3341 Ashton Rd., S.E., Grand Rapids
Ferguson, Mrs. James.....2230 Hall, S.E., Grand Rapids
Ferguson, Mrs. Lynn.....635 Cambridge, S.E., Grand Rapids
Ferguson, Mrs. Ward.....2117 Hall, S.E., Grand Rapids
Ferrand, Mrs. L. G.....119 N. Monroe, Rockford
Fitts, Mrs. Ralph L.....1930 Michigan Rd., N.E., Grand Rapids
Fitzgerald, Mrs. Erwin L.....2005 Hall, S.E., Grand Rapids
Flintoff, Mrs. Wm. M.....720 Ethel, S.E., Grand Rapids
Foshee, Mrs. J. C.....315 Madison, S.E., Grand Rapids
Foxworthy, Mrs. John.....2565 Albert Dr., S. E., Grand Rapids
Frantz, Mrs. Chas.....1860 Lake Dr., S.E., Grand Rapids
Fuller, Mrs. E. Hemingway.....260 Paris, S.E., Grand Rapids
Fuller, Mrs. Wm. J.....2633 Frederick Dr., S.E., Grand Rapids

Gamm, Mrs. Kenneth E.....456 Morris, S.E., Grand Rapids
Gibbs, Mrs. Floyd F.....2140 Romence, N.E., Grand Rapids
Gilbert, Mrs. Ralph H.....1125 San Jose, S.E., Grand Rapids
Gillett, Mrs. Frederick.....755 San Jose, S.E., Grand Rapids
Good, Mrs. C. R.....2111 Buttrick, Ada
Gouwens, Mrs. Willis.....2836 Coit, N.E., Grand Rapids
Grant, Mrs. Lee O...2263 Eldorado, S.E., Grand Rapids
Grass, Mrs. Edw. J.....858 Pinecrest, S.E., Grand Rapids
Gray, Mrs. Fred B.....3025 Mary, S.E., Grand Rapids
Griffith, Mrs. Lucian S.....1934 Sherman, S.E., Grand Rapids
Gunn, Mrs. James A.....1065 San Lucia, S.E., Grand Rapids
Gunning, Mrs. R. E. Lee.....1960 Michigan, N.E., Grand Rapids
Grand Rapids

Hagerman, Mrs. David B.....1551 Seminole, S.E., Grand Rapids
Hamp, Mrs. Arthur.....3985 Reeds Lake Blvd., Grand Rapids
Heaton, Mrs. J. R.....2102 Anderson, S.E., Grand Rapids
Heetderks, Mrs. Dewey R.....240 Edgehille, S.E., Grand Rapids
Hesselschwerdt, Mrs. Donald.....932 Floral, S.E., Grand Rapids
Hodgen, Mrs. John T.....2320 Fulton, E., Grand Rapids
Hoekstra, Mrs. Andrew.....2040 Cambridge, S.E., Grand Rapids
Holcomb, Mrs. J. Winslow.....1441 Breton, S.E., Grand Rapids
Hollander, Mrs. Stephen.....2027 Godwin, S.E., Grand Rapids
Hoogerhyde, Mrs. Jack.....3355 Ashton Rd., S.E., Grand Rapids
Hudson, Mrs. Harry.....1540 Woodlawn, S.E., Grand Rapids
Hufford, Mrs. A. Ray.....2660 Oakwood, S.E., Grand Rapids
Humphrey, Mrs. James C.....1134 Cambridge, S.E., Grand Rapids
Hutchinson, Mrs. F. Alan.....16 Lafayette, N.E., Grand Rapids
Hydrick, Mrs. Robert H.....2013 Homestead Dr., N.W. Grand Rapids
Hyland, Mrs. Wm. A...2833 Bonnell, S.E., Grand Rapids
Ireland, Mrs. H. D.....724 Fuller, S.E., Grand Rapids
Irwin, Mrs. Thos. C.....1347 American Way, Melno Park, Calif.

Jack, Mrs. William....507 Plymouth, S.E., Grand Rapids
Jameson, Mrs. Fred.....2711 Beechwood, S.E., Grand Rapids
Jaracz, Mrs. Walter J., Sr.....36 Valley, S.W., Grand Rapids
Jaracz, Mrs. Walter J., Jr.....1561 Alexander, S.E., Grand Rapids
Jarvis, Mrs. Chas.....218 Sligh Blvd., N.E., Grand Rapids
Jellema, Mrs. John F.....1843 Houseman, N.E., Grand Rapids
Jensen, Mrs. Wm. B.....3147 Bonnell, S.E., Grand Rapids
Johns, Mrs. Donald....655 Broadview, S.E., Grand Rapids
Johnston, Mrs. Wm. L.....1047 Gladstone, S.E., Grand Rapids
Jones, Mrs. Haven E...2105 Godwin, S.E., Grand Rapids
Jones, Mrs. Horace C.....3004 Oakwood, S.E., Grand Rapids

Kenney, Mrs. Leo J.....3855 Filkins, N.E., Grand Rapids
Kessler, Mrs. Dale L.....1610 Robinson Rd., S.E., Grand Rapids
Kingma, Mrs. J. G.....935 Calvin, S.E., Grand Rapids
Klooster, Mrs. Gerald.....1919 Chamberlain, S.E., Grand Rapids
Kniskern, Mrs. Paul W.....1555 Edgewood, S.E., Grand Rapids
Kooistra, Mrs. Henry P.....1564 Pontiac, S.E., Grand Rapids
Kool, Mrs. Bernard..419 Comstock, N.E., Grand Rapids
Kreulen, Mrs. Henry J.....2452 Godwin, S.E., Grand Rapids
Krhovsky, Mrs. Frank..130 Rexford, S.E., Grand Rapids
Kruse, Mrs. William..2225 Wilshire, S.E., Grand Rapids

Lamberts, Mrs. Austin.....1520 Leffingwell, N.E., Grand Rapids
Landstra, Mrs. Robert.....1243 Fisk, S.E., Grand Rapids
Lang, Mrs. Ramon....2958 Anderson, S.E., Grand Rapids
Lanning, Mrs. Nicholas.....1050 Gladstone, S.E., Grand Rapids
Lentini, Mrs. Joseph..2059 Anderson, S.E., Grand Rapids
Lewis, Mrs. George.....30 Manchester Rd., S.W., Grand Rapids
Lieffers, Mrs. Harry.....331 Aurora, S.E., Grand Rapids
Lillie, Mrs. Walter....1038 Pinecrest, S.E., Grand Rapids
List, Mrs. Carl.....401 Lakeside, S.E., Grand Rapids
Lukens, Mrs. Jack....2847 Elmwood, S.E., Grand Rapids

MacDonell, Mrs. James A.....185 Maryland, N.E., Grand Rapids
MacIntyre, Mrs. Dugald S.....562 Plymouth, S.E., Grand Rapids
Mann, Mrs. Joseph D.....2435 Beechwood, S.E., Grand Rapids
Marsh, Mrs. J. P.....1231 Sigsbee, S.E., Grand Rapids
Martinus, Mrs. Martin.....525 Overbrook Lane, Grand Rapids
Maynard, Mrs. Mason.....1231 Plymouth, S.E., Grand Rapids
McCormick, Mrs. J. K.....401 Cheshire, N.E., Grand Rapids
McDougal, Mrs. Wm.....639 Kent Hills, N.E., Grand Rapids
McKenna, Mrs. Joseph L.....1525 Edgewood, S.E., Grand Rapids
Meade, Mrs. Richard....759 San Jose, S.E., Grand Rapids
Meeuwsen, Mrs. Bernard.....664 Winchell, S.E., Grand Rapids

Mehney, Mrs. Gayle H.....3530 Cascade Rd., S.E., Grand Rapids
Miller, Mrs. J. D.....2565 Frederick, S.E., Grand Rapids
Miller, Mrs. J. J.....Marne
Moberg, Mrs. Carl.....2547 Maplewood, S.E., Grand Rapids
Moleski, Mrs. Joseph V.....1911 Hall, S.E., Grand Rapids
Moleski, Mrs. Leo. T.....1462 Milton, S.E., Grand Rapids
Moleski, Mrs. Stanley..1701 Pontiac, S.E., Grand Rapids
Moll, Mrs. A. M.....3383 Fulton, E., Grand Rapids
Moore, Mrs. Douglas.....1862 Sherman, S.E., Grand Rapids
Mouw, Mrs. Dirk.....2352 Jefferson, S.E., Grand Rapids
Mulder, Mrs. G. Arthur.....2047 Jefferson, S.E., Grand Rapids
Mulder, Mrs. J. D...3161 Baker Rd., S.E., Grand Rapids
Muldoon, Mrs. James..1833 Madison, S.E., Grand Rapids
Murphy, Mrs. Miles..1050 Monterey, S.E., Grand Rapids
Murray, Mrs. Raymond.....1540 Mackinaw, S.E., Grand Rapids

Nanzig, Mrs. Reeinard.....824 Chippewa, S.E., Grand Rapids
Nickel, Mrs. Kenneth....1535 Groton, S.E., Grand Rapids
Northouse, Mrs. Peter B.....1524 Pontiac, S.E., Grand Rapids
Notier, Mrs. Victor A.....2601 Maplewood, S.E., Grand Rapids

Oliver, Mrs. W. W.....7241 Belding Rd.. N.E., Rockford
Overbeek, Mrs. Ernest..458 Mae-thy, S.E., Grand Rapids

Paalman, Mrs. Russell J.....497 Marywood, N.E., Grand Rapids
Patterson, Mrs. P. W...2032 Godwin, S.E., Grand Rapids
Pattullo, Mrs. Marshall.....1330 Woodcliff, S.E., Grand Rapids
Payne, Mrs. C. Allen....1289 Perkins, N.E., Grand Rapids
Pearson, Mrs. Glenn A.....519 Greenwood, S.E., Grand Rapids
Pedden, Mrs. John.....230 El Centro Blvd., S.E., Grand Rapids
Pilling, Mrs. Warren C.....936 Orchard, S.E.. Grand Rapids
Plekker, Mrs. J. D.....2217 Wilshire, S.E. Grand Rapids
Porter, Mrs. Howard P.....180 Greenwich, N.E., Grand Rapids
Posthuma, Mrs. Albert.....2247 College, S.E., Grand Rapids
Pott, Mrs. A. L.....612 Kent Hills, N.E., Grand Rapids
Prothro, Mrs. Winston B.....465 Cheshire, N.E., Grand Rapids
Puite, Mrs. Robert....1039 San Juan, S.E., Grand Rapids
Pyle, Mrs. Henry J...1016 Waltham, S.E., Grand Rapids

Raiman, Mrs. Robert J.....1128 Eastwood, S.E., Grand Rapids
Ralph, Mrs. L. Paul..953 Rosewood, S.E., Grand Rapids
Rasmussen, Mrs. Richard.....737 Cambridge, S.E., Grand Rapids
Reus, Mrs. William.....334 Hobart, S.E., Grand Rapids
Riekse, Mrs. James M.....437 Hoyt, S.E., Grand Rapids
Rigterink, Mrs. John W.....1291 Cambridge, S.E., Grand Rapids
Ringenberg, Mrs. J. C.....1736 Cambridge, S.E., Grand Rapids
Robb, Mrs. Chas. S...977 Gladstone, S.E., Grand Rapids
Robbert, Mrs. John.....3813 Omaha, S.W., Grandville
Rodgers, Mrs. Wm. L.....2865 Lake Dr., S.E., Grand Rapids
Rooks, Mrs. Wendell H.....1158 Nixon, N.W., Grand Rapids
Roosenberg, Mrs. Wm.....535 Kendalwood, N.E., Grand Rapids
Rosenzweig, Mrs. Leonard.....315 Benjamin, S.E., Grand Rapids
Roth, Mrs. Emil.....2414 Fulton, E., Grand Rapids
Ryan, Mrs. John.....1707 Wealthy, S.E., Grand Rapids

Sanders, Mrs. Jack F.....1762 Millbrook, S.E., Grand Rapids
Schaubel, Mrs. H. J.....728 Cambridge, S.E., Grand Rapids
Schlosser, Mrs. Ralph.....1922 Emerald, N.E., Grand Rapids
Schneider, Mrs. Geo. R.....934 Rosewood, S.E., Grand Rapids
Schumacher, Mrs. Earle E.....2456 Beechwood, S.E., Grand Rapids
Scott, Mrs. Wm. B...1300 Benjamin, S.E., Grand Rapids
Seime, Mrs. Reuben....617 Plymouth, S.E., Grand Rapids
Sevensma, Mrs. E. S.....2114 Anderson, S.E., Grand Rapids
Sevensma, Mrs. Eugene S.....2255 Riverside, N.E., Grand Rapids
Sevey, Mrs. Leon.....1145 Benjamin, S.E., Grand Rapids
Sharda, Mrs. Martin.....916 Alger, S.E.. Grand Rapids
Shellman, Mrs. M. W.....3152 Brentwood, S.E., Grand Rapids
Sidell, Mrs. Richard....927 Princeton, S.E., Grand Rapids
Siebers, Mrs. B. H.....988 Maryland, N.E., Grand Rapids
Slemons, Mrs. C. C.....530 Morris, S.E., Grand Rapids
Sluyter, Mrs. J. S.....938 Iroquois, S.E., Grand Rapids
Smith, Mrs. A. B.....1434 Byron, S.E., Grand Rapids
Smith, Mrs. Dean B.....2501 Maplewood, S.E., Grand Rapids
Smith, Mrs. Robert B...1529 Burton, S.E., Grand Rapids
Snapp, Mrs. Carl F.....314 Madison, S.E., Grand Rapids
Snyder, Mrs. C. H.....3250 O'Brien Rd., S.W., Grand Rapids
Southwick, Mrs. Christopher.....760 San Jose, S.E., Grand Rapids
Southwick, Mrs. G. H.....1935 San Lu Rae, S.E., Grand Rapids
Steffensen, Mrs. W. H.....443 Plymouth, S.E.. Grand Rapids
Stonehouse, Mrs. G. G.....208 Pioneer Rd.. S.E., Grand Rapids
Stover, Mrs. Virgil E.....860 Gladstone, S.E., Grand Rapids
Sugiyama, Mrs. T...1006 Hollywood, N.E., Grand Rapids
Swanson, Mrs. Alfred B.....1722 Breton, S.E., Grand Rapids
Swenson, Mrs. Harold..1734 Adams, S.E., Grand Rapids

TenHave, Mrs. John.....3515 Briggs, Blvd.. N.E., Grand Rapids
Tesseine, Mrs. A. J...425 Cambridge, S.E., Grand Rapids
Teusink, Mrs. Harvey....39 W. Beech St., Cedar Springs
Thompson, Mrs. Edward C.....1401 Breton, S.E., Grand Rapids
Thompson, Mrs. Frank D.....333 Gladstone, S.E., Grand Rapids
Tidey, Mrs. Marcus B...261 College, S.E., Grand Rapids
Tiffany, Mrs. Joseph..2322 Jefferson, S.E., Grand Rapids
Torgerson, Mrs. Wm. R.....536 Belvedere, S.E., Grand Rapids
Torgerson, Mrs. Wm. R., Jr.....2939 Hall, S.E., Grand Rapids
Truog, Mrs. C. Peter.....1470 Briarcliff, R. R. 3, Grand Rapids

Uthoff, Mrs. Carl.....2253 Foster, N.E., Grand Rapids

VanBree, Mrs. Raymond S.....1521 Ridgewood, S.E., (Deceased) Grand Rapids
VandenBerg, Mrs. Allison.....1120 Cambridge, S.E., Grand Rapids
VandenBerg, Mrs. Henry J.....2933 Bonnell, S.E., Grand Rapids
VanderMolen, Mrs. John.....1805 Diamond, N.E., Grand Rapids
VanderPloeg, Mrs. Wm.....965 Rosewood, S.E., Grand Rapids
VanderVeer, Mrs. Corwin G.....841 Edna, S.E., Grand Rapids
VanDuine, Mrs. Henry.....414 Brookside, S.E., Grand Rapids
VanGoor, Mrs. Kornelius.....2547 Willard, S.E., Grand Rapids
VanNoord, Mrs. G. A.....6850 Division, S., Grand Rapids
VanWoerkom, Mrs. D.....1946 Lake Michigan, N.W., Grand Rapids

VanZwalenburg, Mrs. B. R.....2054 Anderson, S.E., Grand Rapids
Veldman, Mrs. Harold E.....2447 Oakwood, N.E., Grand Rapids
Venema, Mrs. Jay R.....540 Overbrook, S.E., Grand Rapids
Vining, Mrs. K. K., Jr.....934 Princeton, S.E., Grand Rapids
Wadlund, Mrs. Robt. R.....557 Glenwood, S.E., Grand Rapids
Wahby, Mrs. Elmer F.....2127 Wilshire, S.E., Grand Rapids
Waterman, Mrs. Donald F.....4221 Edinburgh, S.E., Grand Rapids
Wells, Mrs. Merrill.....3346 Coit, N.E., Grand Rapids
Weller, Mrs. Keith....1125 Orchard, S.E., Grand Rapids
Wenger, Mrs. A. V.....132 Grand, N.E., Grand Rapids
Wenger, Mrs. John N.....Coopersville
Westerhof, Mrs. R.....1038 Lake Grove, S.E., Grand Rapids
Whittenberger, Mrs. Robt.....740 Kent Hills, N.E., Grand Rapids
Wiarda, Mrs. Roy J.....3347 Eastern, N.E., Grand Rapids
Wiese, Mrs. John L.....3200 Bonnell, S.E., Grand Rapids
Wilderom, Mrs. Morris.....R. R. 2, Ada
Wilkes, Mrs. John B.....311 Aurora, S.E., Grand Rapids
Williams, Mrs. John R.....2059 College, S.E., Grand Rapids
Willits, Mrs. Paul.....337 Manhattan Rd., S.E., Grand Rapids
Winter, Mrs. G. E.....2316 Jefferson, S.E., Grand Rapids
Wyngarden, Mrs. Martin K.....1333 Philadelphia, S.E., Grand Rapids
Yared, Mrs. J. A.....1901 Lake Dr., S.E., Grand Rapids
Zwemer, Mrs. Rodger J.....1420 Rossman, S.E., Grand Rapids

LAPEER COUNTY

Baruch, Mrs. Leon.....Liberty St., Lapeer
Bishop, Mrs. Clare.....Almont
Buchanan, Mrs. T. K.....182 Melanie Blvd., Imlay City
Burley, Mrs. David.....Almont
Chapin, Mrs. Clarence.....4727 Pine St., Columbiaville
Conaway, Mrs. Charles.....746 N. Monroe, Lapeer
DesJardins, Mrs. Elaine.....307 Washington, Lapeer
Dorland, Mrs. Clarke.....211 Lincoln, Lapeer
Doty, Mrs. James.....1335 N. Monroe, Lapeer
Greavu, Mrs. Cornell.....North Branch
Heitsch, Mrs. William.....892 S. Saginaw, Lapeer
House, Mrs. Clifford.....N. Main, Lapeer
Hunter, Miss Mary E.....1091 Pine, Lapeer
Hunter, Miss Frances.....1091 Pine, Lapeer
Kiehle, Mrs. Anna.....706 N. Main, Lapeer
Kiehler, Mrs. E. G.....1608 Peppermill Rd., Lapeer
Lundgren, Mrs. Margaret.....450 Cedar St., Lapeer
McBride, Mrs. John R.....914 Liberty, Lapeer
Rehn, Mrs. A. T.....Drawer A, Lapeer
Smith, Mrs. Glenn.....6552 Imlay City Rd., Imlay City
Snowman, Mrs. Lynna.....306 N. Main, Lapeer
Thomas, Mrs. J. O.....Huron St., North Branch
Thompson, Mrs. May.....243 Clay St., Lapeer
Zemmer, Mrs. Harry.....Hannamon Rd., Columbiaville
Zolliker, Mrs. Carl.....Lapeer State Home, Lapeer

LENAWEE COUNTY

Abrahams, Mrs. Arnold O.....305 Church St., Hudson
Allen, Mrs. Russell A.....R.F.D. 4, Adrian
Balice, Mrs. Francis W.....3800 Westwood Dr., Adrian
Benz, Mrs. Carl A.....R.F.D. 4, Adrian
Berghuis, Mrs. John.....347 Budlong, Adrian
Blanchard, Mrs. Lowell E.....224 Seward, Hudson
Blanden, Mrs. M. R.....5140 E. Monroe Rd., Tecumseh
Claxton, Mrs. W. T.....136 W. Chicago, Britton
Coak, Mrs. Richard D...308 W. Chicago Blvd., Tecumseh
Cook, Mrs. Calton L.....740 N. Union, Tecumseh
Dickman, Mrs. H. M.....120 W. Church, Hudson
Dorsey, Mrs. John.....1375 Terrace Ave., Adrian
Eddy, Mrs. Howard.....349 S. Main St., Adrian
Fitzsimmons, Mrs. F. J.....1335 Terrace Ave., Adrian
Hamilton, Mrs. J. D.....1360 Oregon Rd., Adrian
Hammel, Mrs. Richard T.....611 N. Evans, Adrian
Harrison, Mrs. R. E.....418 W. Adrian St., Blissfield
Heffron, Mrs. Harold.....748 W. Maumee, Adrian
Heffron, Mrs. Howard H.....R.F.D. 1, Adrian
Helzerman, Ralph.....612 W. Chicago, Tecumseh
Hewes, Mrs. Wm. H.....11 Oregon Rd., Adrian
Hinshaw, Mrs. Warren.....950 Riverside Dr., Adrian
Marsh, Mrs. R. G. B.....610 W. Logan, Tecumseh
O'Connor, Mrs. Archie R.....122 Locust, Clinton
Parker, Mrs. Donald A.....454 S. Main, Adrian
Patmos, Mrs. Bernard.....16 Maumee Court, Adrian
Phelan, Mrs. Alvin J.....405 Seneca, Tecumseh
Richey, Mrs.....765 Manitou Rd., Monitou Beach
Rogers, Mrs. J. D.....1232 W. Maple Ave., Adrian
Sarapa, Mrs. Donato.....115 E. Mich. St., Adrian
Sayre, Mrs. P. P.....228 S. Main, Onsted
Stafford, Mrs. L. J.....8 Westwood Dr., Adrian
Stewart, Mrs. Landis.....214 E. Butler, Adrian
Thompson, Mrs. John R.....509 Dennis, Adrian
Whitehouse, Mrs. K. H.....128 Summitt, Morenci
Wilson, Mrs. Geo. C.....108 Jackson Rd., Clinton
Wolfe, Mrs. Marvin.....143 Park, Adrian
Wynn, Mrs. Geo. H.....1115 W. Maumee, Adrian

LIVINGSTON COUNTY

Barton, Mrs. Thomas A.....100 Lucy Rd., Howell
Clarke, Mrs. Niles A.....723 Spencer Rd., Brighton
Hauer, Mrs. R. F.....Fowlerville
Hendron, Mrs. J. J.....Fowlerville
Hill, Mrs. Harold C.....320 Madison St., Howell
Hoffman, Mrs. S. L.....417 Maple St., Howell
Huntington, Mrs. Harry G.....219 South Walnut St., Howell
May, Mrs. Louis A.....420 Riddle St., Howell
McGregor, Mrs. A. J.....995 East Main St., Brighton
Mitchell, Mrs. Abbott B.....3505 Mason Rd., Rt. 2, Howell
Rogers, Mrs. Robert P.....4318 Highcrest Dr., Brighton
Sigler, Mrs. Hollis G.....309 North Michigan, Howell
Smith, Mrs. Russell F.....Whitmore Lake
Walker, Mrs. Enos S...4485 Cordley Lake Rd., Lakeland
Woodworth, Mrs. Edwin S.....433 Caledonia, Howell

MACOMB COUNTY

Banting, Mrs. O. F.....Main St., Richmond
Barker, Mrs. John G.....22420 Statler Blvd., St. Clair Shores
Bower, Mrs. Allen B.....Armada
Bratrud, Mrs. Theo.....64 Riverside, Mt. Clemens
Bryce, Mrs. James W.....22476 Lange, St. Clair Shores
Buckley, Mrs. Daniel J.....160 S. Walnut, Mt. Clemens
Charbeneau, Mrs. Patrick.....226 Wellington Crescent, Mt. Clemens
Cherup, Mrs. Nick.....24215 Hill, Centerline
Collon, Mrs. David.....217 W. St. Clair, Romeo
Corbett, Mrs. John....22924 Edgewood, St. Clair Shores
Croman, Mrs. Joseph M.....131 Market, Mt. Clemens
Curatola, Mrs. Victor.....28 Breitmeyer, Mt. Clemens
Deal, Mrs. Harold.....23700 Van Dyke, Van Dyke
de Paulis, Mrs. Dario....21636 Winshall, St. Clair Shores
Dudzinski, Mrs. Edmund..36818 E. Main, New Baltimore
Engels, Mrs. John A.....36050 Friday, Richmond
Goldman, Mrs. Bernard.....245 Esplanade, Mt. Clemens
Hartman, Mrs. Waldemar B.....43481 N. Gratiot, Mt. Clemens
Heine, Mrs. Austin W.....38567 Riverside, Mt. Clemens
Herrington, Mrs. Clark.....629 Chippewa, Mt. Clemens
Jankoska, Mrs. Richard.....22119 13 Mile Rd., St. Clair Shores
Juliar, Mrs. Joseph.....19 Lodewyck, Mt. Clemens
Kane, Mrs. John.....38288 Harper, Mt. Clemens
Kane, Mrs. Peter.....1340 Hampton, Mt. Clemens
Kane, Mrs. William.....171 North, Mt. Clemens
Kirker, Mrs. J. Gilmore.....68259 S. Main, Richmond
Lapp, Mrs. Charles.....45157 Van Dyke, Utica
Maguire, Mrs. Andrew H.....45463 Van Dyke, Utica
Matthews, Mrs. Christian F...135 Riverside, Mt. Clemens
Maxim, Mrs. Edward....84140 Jefferson, St. Clair Shores
Moore, Mrs. George F.....20 Kendrick, Mt. Clemens
Mulligan, Mrs. Philip T.....59 Ahrens, Mt. Clemens
Peltier, Mrs. Stanley J.....151 North, Mt. Clemens
Persson, Mrs. G. A.....198 S. Gratiot, Mt. Clemens
Pollina, Mrs. C. J.....17070 12 Mile Rd., Roseville
Reitzel, Mrs. Rufus H...1 Breitmeyer Place, Mt. Clemens
Rickman, Mrs. Lewis D.....10 Howard St., Mt. Clemens
Rinkenberger, Mrs. Earl A...940 Chippewa, Mt. Clemens
Rousseau, Mrs. Daniel L.....863 Harrington, Mt. Clemens
Salot, Mrs. Russell.....11 Breitmeyer, Mt. Clemens
Siegfried, Mrs. Edward G.....77 Scott Blvd., Mt. Clemens
Sims, Mrs. William.....847 Harrington, Mt. Clemens
Singer, Mrs. Nelson.....22100 Gratiot, E. Detroit
Scher, Mrs. Joseph.....130 Belleview, Mt. Clemens
Scher, Mrs. Sydney.....39740 Cove, Mt. Clemens
Smith, Mrs. Milton C.....117 Lodewyck, Mt. Clemens
Stepka, Mrs. Joseph E.....7273 Powers Ct., Utica
Strempek, Mrs. Walter.....241 N. Main St., Romeo
Stryker, Mrs. Oscar D...31032 Jefferson, St. Clair Shores
Stubbs, Mrs. Clayton.....126 S. Gratiot, Mt. Clemens
Stubbs, Mrs. Harold W...29240 Grandview, Mt. Clemens
Thompson, Mrs. Alfred A.....35 Miller, Mt. Clemens
Ullrich, Mrs. Russell W.....421 Robertson, Mt. Clemens
Whitley, Mrs. Alec....21707 Erben Dr., St. Claire Shores
Wiley, Mrs. D. Bruce.....45223 Cass, Utica
Wolfson, Mrs. Victor W.....272 Riverside, Mt. Clemens
Wyte, Mrs. William C.....38616 Lake Shore Dr., Mt. Clemens

MARQUETTE-ALGER COUNTIES

Acocks, Mrs. James.....Morgan Heights, Marquette
Amolsch, Mrs. Arthur L.....321 Pine Marquette
Bennett, Mrs. Matthew C.....409 E. Ohio, Marquette
Bertucci, Mrs. Joseph.....517 N. Pine, Ishpeming
Bolitho, Mrs. T. Boyd.....Birch Grove, Marquette
Bottom, Mrs. C. N.....624 N. Third, Marquette
Burke, Mrs. R. A.....Palmer
Casler, Mrs. Wilbur L.....127 E. Ridge, Marquette
Cooperstock, Mrs. M.....402 E. Ridge, Marquette
d'Adesky, Mrs. Raymond.....Nicolet, Marquette
Drury, Mrs. Chas. P.....414 E. Hewitt, Marquette
Elzinga, Mrs. Eugene.....415 E. Hewitt, Marquette
Erickson, Mrs. A. W.....621 N. Fourth, Ishpeming
Erickson, Mrs. Douglas.....621 N. Fourth, Ishpeming
Green, Mrs. S. J.....405 N. First, Ishpeming
Hettle, Mrs. Paul J.....337 E. Hewitt, Marquette
Howe, Mrs. Lloyd W.....453 E. Michigan, Marquette
Hornbogen, Mrs. D. P.....320 Cedar, Marquette
Jaedecke, Mrs. R. G.....1427 N. Second, Ishpeming
Koenig, Mrs. Harry.....413 E. Ohio, Marquette
Knutson, Mrs. George D.....120 Main, Negaunee
Lambert, Mrs. Warren C.....347 E. Ridge, Marquette
Lyons, Mrs. James.....Lakewood, Marquette
Markham, Mrs. Isabel P.....401 N. Fourth, Marquette
Matthews, Mrs. Norman.....807 W. Kaye, Marquette
Moore, Mrs. Bert.....U. S. 41, Negaunee
Narotzky, Mrs. Archie.....628 E. Ridge, Ishpeming
Rosenbaum, Mrs. Louis.....2004 Deer Lake, Ishpeming
Sabin, Mrs. Fred C.....Cedar, Marquette
Schultz, Mrs. Marvin.....323 E. College, Marquette
Sherwood, Mrs. Clifford.....353 S. Pine, Ishpeming
Stein, Mrs. Paul.....Harvey, Marquette
Swinton, Mrs. A. L.....430 E. Arch, Marquette
Wickstrom, Mrs. G. B.....223 Lynn, Munising
Williams, Mrs. R. G.....Deer Lake, Ishpeming
Wright, Mrs. Chas.....3156 Lake Shore Blvd., Marquette
Youngquist, Mrs. Hazel.....528 E. Arch, Marquette

MASON COUNTY

Bacon, Mrs. Herbert G.....125 W. State St., Scottville
Boldyreff, Mrs. Ephraim B.....Custer
Boon, Mrs. A. Floyd.....203 N. Ferry St., Ludington
Clark, Mrs. Harry.....501 N. Lakeshore Dr., Ludington
Craymer, Mrs. Austin.....420 N. Rath Ave., Ludington
Garneau, Mrs. Robert.....308 E. Court St., Ludington
Goulet, Mrs. Leo.....510 E. Ludington Ave., Ludington
Hoffman. Mrs. Howard B.....604 E. Ludington Ave., Ludington
Martin, Mrs. W. S.....107 W. Ludington Ave., Ludington
Morris. Mrs. Roger.....405 E. Court St., Ludington
Paukstis, Mrs. Charles A.....502 N. Lakeshore Dr., Ludington
Spencer, Mrs. C. M.....Scottville
Switzer, Mrs. G. A.....302 Lakeshore Dr., Ludington

MECOSTA-OSCEOLA-LAKE COUNTIES

Bruggeman, Mrs. Jacob.....621 N. Main St., Evart
Campbell, Mrs. J. B.....320 Division St., Big Rapids
Chess, Mrs. Leo.....417 W. Upton, Reed City
Franklin, Mrs. B.....Remus
Haldeman, Mrs. Jack....228 S. Warren Ave., Big Rapids
Hickox, Mrs. Leland.....312 S. Warren Ave., Big Rapids

Ivkovich, Mrs. Paul.....335 W. Upton Ave., Reed City
Kelsey, Mrs. Lee E.....Lakeview
Kazmers, Mrs. Elga.....Lakeview
Kilmer, Mrs. Paul.....350 W. Upton, Reed City
Kowaleski, Mrs. Edward.....Remus
Marston, Mrs. L. L.....Lakeview
Nelson, Mrs. Lorenzo.....Baldwin
Tyson, Mrs. James A.....124 Mecosta Ave., Big Rapids
VanAuken, Mrs. Edward W...115 N. Stewart, Big Rapids
White, Mrs. J. A.....123 Cedar, Big Rapids
Walters, Mrs. James E.....624 S. Michigan Ave., Big Rapids
Yeo, Mrs. Gordon H.....209 Rust, Big Rapids

MENOMINEE COUNTY

Agneberg, Mrs. Nils B.....221 First St., Menominee
Brukardt, Mrs. Herman R.....714 14th Ave., Menominee
Clay, Mrs. Joel W.....1031 First St., Menominee
Dewane, Mrs. Francis J.....1409 7th St., Menominee
Flanagan, Mrs. Clarence B.....915 11th Ave., Menominee
Glickman, Mrs. L. Grant....1603-32nd Ave., Menominee
Gonty, Mrs. Arthur.....Frontenac Beach, Menominee
Heidenreich, Mrs. John R.....Daggett
Jones, Mrs. William S.....101 15th Ave., Menominee
Jones, Mrs. William S., Jr.....1834 First St., Menominee
Kerwell, Mrs. Karm C.....Stephenson
Olson, Mrs. Robert C.....1713 22nd Ave., Menominee
Peterson, Mrs. Allan R.....Daggett
Towey, Mrs. John W.....Pinecrest Sanitorium, Powers
Whitmarch, Mrs. Thomas.....Stephenson

MIDLAND COUNTY

Ashcom, Mrs. Richard.....15 Dart Moor, Midland
Ballmer, Mrs. Robert S.....1111 Sugnet W., Midland
Bernier, Mrs. Joseph.....Box 26, Sanford
Blackhurst, Mrs. J. Fred.....4506 Hampshire, Midland
Blackhurst, Mrs. Robert T.....306 W. Meadowbrook, Midland
Bowsher, Mrs. Robert E...901 St. Andrew's Dr., Midland
Buskirk, Mrs. Maurice D.....310 W. Nelson, Midland
Carsons, Mrs. Ada.....1414 Sugnet Rd., Midland
Chenoweth, Mrs. M. B.....3066 E. Gordonville, Midland
Cook, Mrs. W. A.....1104 W. Park Dr., Midland
Devlin, Mrs. James A.....1111 Eastman Rd., Midland
Fields, Mrs. Dozier.....515 W. Main. Midland
Gay, Mrs. Harold H.....Coleman
Gordon, Mrs. Harold L.....1423 Clover Ct., Midland
Grant, Mrs. Robert P.....210 E. Sugnet, Midland
Growemeyer, Mrs. Wm. H.....1009 St. Andrew's Dr., Midland
Hefferuhn, Mrs. Dan D.....1213 E. St. Andrew's, Midland
High, Mrs. Charles.....3115 Isabella Rd., Midland
Holder, Mrs. Ben B.....534 Woodcock, Midland
Howe, Mrs. Irvin M.....1115 W. Eugnet, Midland
Howell, Mrs. Richard H.....709 Maple St., Midland
Ittner, Mrs. Martin J.....509 W. Sugnet, Midland
Kaasa, Mrs. Loren J.....2011 Ashman St., Midland
Landsborough, Mrs. Hester.....127 W. Nelson, Midland
Linsenmann, Mrs. Karl W.....2604 Manor Dr., Midland
Marks, Mrs. V. A.....4405 Hampshire, Midland
Maynard, Mrs. Wm.....Coleman
Meisel, Mrs. Edward H.....413 Lingle Lane, Midland
Moench, Mrs. G. Fred.....Sanford
O'Hora, Mrs. Bernard A.....3801 Applewood Rd., Midland
Pike, Mrs. Melvin H.....220 W. Nelson, Midland
Pollock, Mrs. Robert W.....123 Jones Court, Midland
Poznak, Mrs. Leonard A.....1411 Crane Ct., Midland
Randolph, Mrs. S. H.....410 Jerome St., Midland
Schoff, Mrs. Charles.....2708 Glendale, Midland
Sherk, Mrs. Joseph H.....161 Revere St., Midland
Shriner, Mrs. J. W.....1524 Air Field Lane, Midland
Stewart, Mrs. Richard.....2721 Scott, Midland
Voikos, Mrs. George A.....909 E. Ashman, Midland
Willison, Mrs. Charles H.....3812 Greenfield Ct., Midland

MONROE COUNTY

Barker, Mrs. Vincent.....104 W. Noble, Monroe
Barrett, Mrs. Clarence.....2133 Hollywood Dr., Monroe
Blakey, Mrs. Leonard.....330 Godfroy Ave., Monroe
Bond, Mrs. William.....475 Hollywood Dr., Monroe
Burroughs, Mrs. John.....322 S. Macomb St., Monroe
Cigany, Mrs. Z. B.....1402 Monroe St., Carleton
Douglas, Mrs. Dale.....151 Hollywood Dr., Monroe
Ewing, Mrs. R. T.....201 N. Macomb St., Monroe
Flanders, Mrs. John.....1434 Hurd Rd., Monroe
Frary, Mrs. Robert A.....505 Strasburg Rd., Monroe
Freud, Mrs. John W.....212 Hollywood Dr., Monroe
Hunter, Mrs. Marion.....12250 Lakeshore Dr., LaSalle
Kelso, Mrs. S. Newton.....336 Cole Rd., Monroe
Laboe, Mrs. Edward.....424 Hollywood Dr., Monroe
Lammers, Mrs. Gerald.....Ida
Loan, Mrs. George B.....1043 Riverview, Monroe
Long, Mrs. Edgar C.....715 Hollywood Dr., Monroe
McDonald, Mrs. T. A.....467 Hollywood Dr., Monroe
McMillan, Mrs. John H.....116 Hollywood Dr., Monroe
Meier, Mrs. Walter A.....306 S. Macomb St., Monroe
Middleton, Mrs. W. S.....427 Hollywood Dr., Monroe
Reisig, Mrs. Albert H.....430 Hollywood Dr., Monroe
Sanger, Mrs. Emerson.....716 Hollywood Dr., Monroe
Siffer, Mrs. Jules.....32 S. Macomb St., Monroe
Sisman, Mrs. Bernard.....524 Hollywood Dr., Monroe
Streicher, Mrs. R. G.....315 Colonial Dr., Monroe
Tomlinson, Mrs. L. H.....Newport
Wagar, Mrs. Spencer.....711 Hollywood, Monroe
Wilkins, Mrs. R. W.....4940 W. Albain Rd., Monroe
Williams, Mrs. Robert.....306 Godfroy Ave., Monroe
Weeks, Mrs. Vernon.....417 E. Elm Ave., Monroe

MUSKEGON COUNTY

August, Mrs. Ralph V.....64 W. Larch Ave., Muskegon
Beers, Mrs. Charles.....1164 Terrace St., Muskegon
Benedict, Mrs. Arthur L.....1633 Clinton St., Muskegon
Bloom, Mrs. Robert E.....1440 Winchester Dr., Muskegon
Bolthouse, Mrs. Robert E.....1641 Jefferson St., Muskegon
Bond, Mrs. Wm. H.....1724 Peck St., Muskegon

Busard, Mrs. R. I.....3910 Highgate Rd., Muskegon
Christopherson, Mrs. James.....1276 Lakeshore Dr., Muskegon
Clapp, Mrs. Henry W.....1585 Glen Ave., Muskegon
Closz, Mrs. Harold F.....1727 Jefferson St., Muskegon
DeLeeuw, Mrs. Henry.....4090 Highgate Rd., Muskegon
Ellis, Mrs. N. J.....1408 Lexington Ave., Muskegon
Fleishman, Mrs. Norman A.....1310 Moulton Ave., North Muskegon
Fles, Mrs. Robert J.....1713 Sanford St., Muskegon
Folsom, Mrs. John D.....2488 Pine Grove Ave., Muskegon
Fugate, Mrs. Edward M...3484 E. Oseola Dr., Muskegon
Gaikema, Mrs. Everett....605 First St., North Muskegon
Garber, Mrs. Frank W.....703 Ruddiman Dr., North Muskegon
Griffith, Mrs. Robert M.....1323 Fourth St., Muskegon
Hack, Mrs. Donald W.....3875 Lake Harbor Rd., Muskegon
Hanley, Mrs. William J.....4104 Harbor Point Dr., Muskegon
Harryman, Mrs. James B...1694 Jefferson St., Muskegon
Hartwell, Mrs. Shattuck W.....644 Lake Dr., North Muskegon
Heneveld, Mrs. Edward H...82 W. Dale Ave., Muskegon
Heneveld, Mrs. Robert....1458 Montague Rd., Muskegon
Hill, Mrs. James K.....2371 Hadden St., Muskegon
Holly, Mrs. Leland E...3349 Scenic Dr., R. 2, Muskegon
Hopkins, Mrs. James G...2455 Winchester Dr., Muskegon
Hornbeck, Mrs. Wm. J.....2510 Pine Grove Ave., Muskegon
Hulett, Mrs. Ralph M.....3990 Loomis Dr., Muskegon
Jesson, Mrs. Robert M.....2344 Fifth St., Muskegon Heights
Johnston, Mrs. Everett H...550 Elsa St., North Muskegon
Joistad, Mrs. Arthur H., Jr.....Mid Oak Dr., North Muskegon
Kane, Mrs. T. J.....1185 Scenic Dr., Muskegon
Kerr, Mrs. Howard J.....2378 Hadden St., Muskegon
Kleaveland, Mrs. I. Justin.....654 Wendover Dr., Muskegon
Lauretti, Mrs. Emil J.....1693 Jefferson St., Muskegon
Laurin, Mrs. Vilda S.....3319 Scenic Dr., Muskegon
LeFevre, Mrs. Louis.....730 Lake Dr., North Muskegon
LeFevre, Mrs. Wm. M.....3033 Scenic Dr., Muskegon
Loder, Mrs. L. L.....Circle Dr., North Muskegon
Lowry, Mrs. Robert A.....1840 Fifth St., Muskegon
Maples, Mrs. Douglas E.....814 Moulton Ave., North Muskegon
McDiarmid, Mrs. Donald.....1129 Peck St., Muskegon
McNair, Mrs. John N.....1395 Glen Ave., Muskegon
Medema, Mrs. Paul E.....1661 Clinton St., Muskegon
Miller, Mrs. Phillip L.....1652 Jefferson St., Muskegon
Mulder, Mrs. Lamburtus.....3918 Henry St., Muskegon
Paterson, Mrs. Lester C.....3458 Seneca Dr., Muskegon
Price, Mrs. Leonard.....1182 Terrace St., Muskegon
Risk, Mrs. Robert D.....3980 Highgate Rd., Muskegon
Shebesta, Mrs. Emil M.....2342 Westwood Rd., Muskegon
Stone, Mrs. Max.....1541 Peck St., Muskegon
Swedenburg, Mrs. Robert D.....2460 Pine Grove Ave., Muskegon
Swenson, Mrs. Leland L.....3503 Scenic Dr., Muskegon
Teifer, Mrs. Charles.....1506 Dawes Rd., Muskegon
Thornton, Mrs. Eugene S.....Circle Dr., North Muskegon
Tyler, Mrs. Wm. H.....1572 Jefferson St., Muskegon
Vandervelde, Mrs. C. A.....4042 Loomis Dr., Muskegon
Van Gelder, Mrs. Wm.....626 Cambridge Dr., Muskegon
Wagenaar, Mrs. Edward.....912 Mona Brook Rd., Muskegon
White, Mrs. W. Gardner.....1185 Harbor Point Dr., Muskegon
Wiersma, Mrs. Silas C.....1337 Peck St., Muskegon
Wildgen, Mrs. Bernard..975 W. Seminole Rd., Muskegon
Wilson, Mrs. Pitt S.....625 Miller Dr., North Muskegon
Yegge, Mrs. John P.....2133 Scenic Dr., Muskegon

NEWAYGO COUNTY

Black, Mrs. B. F.....20 N. Darling Ave., Fremont
Crowe, Mrs. Findlay.....1024 Swain, White Cloud
DeYoung, Mrs. Jess J.....207 E. Elm St., Fremont
Emerick, Mrs. Robert.....Fremont
Geerlings, Mrs. Lambert.....6726 W. Lake Dr., Fremont
Geerlings, Mrs. Willis.....28 E. Oak St., Fremont
Klein, Mrs. J. Paul.....40 E. Pine St., Fremont
O'Neill, Mrs. John W.....White Cloud
Paxton, Mrs. Robert.....221 S. Stewart Ave., Fremont
Pedelty, Mrs. N. L.....8537 Spruce, Newaygo
Vandenberg, Mrs. Tunis.....413 E. Oak St., Fremont
Veenschoten, Mrs. Girard.....Hesperia
Webb, Mrs. Ray.....219 Woodrow Ave., Fremont

NORTH CENTRAL COUNTIES

Barstow, Mrs. Richard.....Gaylord
Clippert, Mrs. Clarence.....Grayling
Dosch, Mrs. Paul.....Grayling
Egle, Mrs. Joseph L.....Gaylord
Hasty, Mrs. Earl A.....West Branch
Howarth, Mrs. T.....Gladwin
Jardine, Mrs. H. M.....West Branch
Libke, Mrs. Robert.....Gaylord
Stealy, Mrs. Stanley.....Grayling
Van Oosten, Mrs. H.....West Branch
Oppy, Mrs. Charles L.....Roscommon
Hayes, Mrs. Louis.....Gaylord
Henig, Mrs. M.....Grayling
Waltz, Mrs. Paul J.....West Branch
McKellop, Mrs. G.....Gaylord
Schaiberger, Mrs. S. A.....West Branch
Stallings, Mrs. Beaverton

NORTHERN MICHIGAN COUNTIES

Allen, Mrs. Robert F.....Lincoln Pl., Petoskey
Alm, Mrs. Bernhard T.....619 Kalamazoo Ave., Petoskey
Blum, Mrs. Benjamin B.....1208 E. Mitchell St., Petoskey
Crippen, Mrs. Edward F.....State St., Mancelona
Lester, Mrs. Vernon.....Lincoln Pl., Petoskey
Grate, Mrs. Lawrence E.....So. Prospect, Charlevoix
Hegener, Mrs. A. J. 1020 Howard St.,Petoskey
Kroeker, Mrs. Edwin J.....1022 Hoffman, Petoskey
Lawrie, Mrs. Guy K.....Mitchell St., Petoskey
Elliott, Mrs. Dean.....230 Sunset Dr., Petoskey
Litzenburger, Mrs. Albert.....Pearl St., Boyne City
McKnight, Mrs. Robert.....Lincoln Pl., Petoskey
Pearson, Mrs. Robert.....Pearl St., Boyne City
Reus, Mrs. Leonard.....Lockwood Ave., Petoskey
Saltonstall, Mrs. Gilbert.....Michigan St., Charlevoix
Taylor, Mrs. Robert.....Lincoln Pl., Petoskey
Webster, Mrs. Jene.....Mitchell St., Petoskey

Abbott, Mrs. Vernon.....111 Illinois, Pontiac
Albrecht, Mrs. Robert.....549 Grixdale, Pontiac
Arnkoff, Mrs. Harry.....140 Illinois, Pontiac
Aulie, Mrs. Hal.....5928 Orchard Bend, Birmingham

Baker, Mrs. Robert.....1129 Fairfax, Birmingham
Bannow, Mrs. Robert.....23 Keswik, Bloomfield Hills
Barker, Mrs. Charles....1829 Lone Pine Rd., Birmingham
Barker, Mrs. Howard....490 Martell Dr., Bloomfield Hills
Barrett, Mrs. John....27821 Bloomfield, Lathrup Village
Bauer, Mrs. Bruce.....29424 Sherry, Madison Heights
Bauer, Mrs. Ernest.....48 W. Robert, Hazel Park
Bauer, Mrs. Ernest, Jr.....718 Irving, Royal Oak
Beattie, Mrs. Willard.....314 W. Maplehurst, Ferndale
Belknap, Mrs. Warren.....2020 Roseland, Royal Oak
Blackwell, Mrs. Leonard..... 51 Niagara, Pontiac
Blakeney, Mrs. James 17 Utica, Pontiac
Boileau, Mrs. Thornton.....460 Hamilton, Birmingham
Boucher, Mrs. Roman.....5451 Brockdale, Birmingham
Bowers, Mrs. Charles L.....199 Barrington, Pontiac
Bradley, Mrs. E. L..... 231 Starr, Pontiac
Brown, Mrs. Arnold.....3599 Wards Pt. Dr., Rt. 1, Orchard Lake
Budd, Mrs. Alexander.....440 Lake Park Dr., Birmingham
Bullard, Mrs. Rockwood.....6745 Parke Lake Dr., Clarkston
Burger, Mrs. John....32055 Telegraph Rd., Birmingham
Burgess, Mrs. C. M.....49 Oxford, Pleasant Ridge
Burke, Mrs. Chauncey.....1123 Glengarry Circle, Birmingham

Cefai, Mrs. Anthony.....42 Miami, Pontiac
Chandler, Mrs. Douglas.....14441 Vernon, Oak Park
Christensen, Mrs. W. L.....31100 Marlin Ct., Birmingham
Cline, Mrs. Alan.....3637 Shallowbrook Rd., Bloomfield Hills
Cobb, Mrs. Leon.....2378 Maplewood, Pontiac
Cobb, Mrs. Thomas.....4415 Motorway Dr., Pontiac
Collins, Mrs. E. F.....436 W. Iroquis Rd., Pontiac
Conrad, Mrs. Cecil..2804 Square Lake Rd., Birmingham
Cudney, Mrs. Ethan.....159 Marlborough, Pontiac

Darling, Mrs. C. G.....Lone Pine Court, Bloomfield Hills
DeLawter, Mrs. Hilbert....1298 Brookwood, Birmingham
Derr, Mrs. William.....7 Fairwood, Pleasant Ridge
Deutsch, Mrs. William.....26695 York Rd., Huntington Woods
Dobski, Mrs. Edwin.....3350 Eastpointe Lane, Rt. 3, Bloomfield Hills
Drew, Mrs. Dale.....4031 Dukeshire, Royal Oak
Dunn, Mrs. Lewis.....18760 San Diego, Birmingham
Durocher, Mrs. Normand.....2880 Old Orchard Dr., Pontiac

Ekelund, Mrs. Clifford.....149 Ottawa Dr., Pontiac
Elder, Mrs. Edward.....230 Starr Ave., Pontiac
Elliott, Mrs. Robert.....524 Hohegan, Birmingham
Endress, Mrs. Zac.....1790 Tiverton Rd., Bloomfield Hills
Esslinger, Mrs. John.....4015 W. Orchard Hill Rd., Bloomfield Hills
Evseef, Mrs. George.....2685 Amberly, Birmingham

Fink, Mrs. L. Jerome.....9 Ottawa Dr., Pontiac
Flick, Mrs. John R.....31510 Bell Vine Tr., Birmingham
Foust, Mrs. Earl.....28145 Lathrup, Lathrup Village
Fox, Mrs. Ralph....855 Ridgewood Rd., Bloomfield Hills
Furlong, Mrs. Harold.....207 Navajo, Pontiac

Gaensbauer, Mrs. Ferdinand.....217 Illinois, Pontiac
Galpin, Mrs. Richard.....937 Henley Dr., Birmingham
Gariepy, Mrs. Bernard.....312 Park, Royal Oak
Gehringer, Mrs. Norman....400 Yarmouth, Birmingham
Gerls, Mrs. Frank.....536 W. Huron St., Pontiac
Gibson, Mrs. W. C.....216 E. Commerce St., Milford
Gill, Mrs. Matthew..3115 Franklin Rd., Bloomfield Hills
Green, Mrs. J. Donald.....347 S. Glenhurst Dr., Birmingham
Green, Mrs. Ralph.....24100 Stratford, Oak Park
Green, Mrs. W. M.....517 W. Iroquois Rd., Pontiac
Grekin, Mrs. Thomas.....18699 Muirland, Detroit 21

Hackett, Mrs. Daniel.....782 Owego Dr., Pontiac
Haddock, Mrs. Douglas.....5700 Pontiac Rd., Pontiac
Hasner, Mrs. Robert.....1712 Sycamore, Royal Oak
Hendren, Mrs. Owen.....16 Barbour Lane, Bloomfield Hills
Hoekman, Mrs. Aben.....1740 Hamilton, Pontiac
Hoyt, Mrs. Donald....7530 Maceday Lake Rd., Clarkston
Hubert, Mrs. John....4955 Stoneyleigh, Bloomfield Hills
Hunter, Mrs. Donald.....2252 Pembroke, Birmingham

Ignatius, Mrs. Aram.....1120 E. 9 Mile Rd., Ferndale

Keeffe, Mrs. Eugene.....468 Williamsbury Dr., Bloomfield Hills
Kemp, Mrs. Felix.....85 Barrington, Pontiac
Kemp, Mrs. Lloyd.....1055 Yarmouth, Birmingham
Kendrick, Mrs. Harold.....260 Cherokee, Pontiac
Ketchum, Mrs. Jesse.....4219 Manor Rd., Royal Oak
Koehler, Mrs. Wm.....4416 Far Hill Dr., Birmingham
Kozonis, Mrs. Michael.....167 E. Iroquois, Pontiac

La Core, Mrs. Ivan.....Pontiac State Hosp. Grounds, Pontiac
Lahti, Mrs. Paul.....315 Fairfax, Birmingham
La Marche, Mrs. Norman.....4139 Wakefield, Berkley
Landry, Mrs. Roy.....3388 Coseyburn, Drayton Plains
Leach, Mrs. Chas. A.....987 Oakland, Birmingham
Levine, Mrs. Bernard.....25835 Parkwood Dr., Huntington Woods
Lichtwardt, Mrs. Harry.....4805 N. Harsdale, Bloomfield Hills
Lilly, Mrs. Richard.....865 Norwich, Birmingham
Lowery, Mrs. A. J.....8030 Flagstaff, Pontiac
Lyons, Mrs. Robert.....200 Oneida, Pontiac

Marra, Mrs. John J. ..1430 Nokomis Dr., Lake Orion
Mason, Mrs. Robert.....564 Overhill, Birmingham
Mehas, Mrs. C. P.....300 W. Hickory Grove Rd., Bloomfield Hills
Meinke, Mrs. Herman.....817 E. Eight Mile Rd., Hazel Park
Meisner, Mrs. H. E.....1290 Oak Park Blvd., Oak Park
Mercer, Mrs. Frank.....87 Ottawa Dr., Pontiac
Miller, Mrs. Hazen.....1932 Greenleaf, Royal Oak
Miller, Mrs. Sidney.....709 Tottenham, Birmingham
Mimura, Mrs. James..4894 Haddington, Bloomfield Hills
McConkie, Mrs. James....2425 W. Lincoln, Birmingham
McHugh, Mrs. James.....Pontiac State Hosp. Grounds Pontiac
McInerney, Mrs. Thomas.....2026 Laurome, Royal Oak
McNeill, Mrs. Howard.....225 Hickory Grove Rd., Bloomfield Hills
McPhee, Mrs. Edward.....1051 Woodlea, Birmingham
Monroe, Mrs. John.....55 Neome, Pontiac
Mueller, Mrs. Elmer....1702 W. Houstonia, Royal Oak

Nalepa, Mrs. Eugene.....2332 Rutherford Rd., Pontiac
Naz, Mrs. John.....2826 Orangegrove, Pontiac
Neafie, Mrs. C. A.....493 Orchard Lake Ave., Pontiac
Nickerson, Mrs. I. D.....6245 Golfview Dr., Birmingham
Norup, Mrs. John.....1772 Edgewood, Berkley
Nosanchuk, Mrs. Joseph.....197 Cherokee, Pontiac

Olsen, Mrs. Richard.....3325 Franklin Rd., Bloomfield Hills
Ott, Mrs. Harold.....1090 Lake Park, Birmingham

Palmer, Mrs. Hayden.....260 Ottawa Dr., Pontiac
Patrick, Mrs. Charles....3620 Clintonville Rd., Pontiac
Payton, Mrs. Charles.....1002 Pilgrim, Birmingham
Pearce, Mrs. James.....1227 Romney Rd., Birmingham
Petroff, Mrs. George N.....219 Cherokee, Pontiac
Porritt, Mrs. Ross.....131 Chippewa, Pontiac
Prather, Mrs. Frank.....701 E. Liberty, Milford
Prosser, Mrs. M. G.....2854 Orangegrove, Pontiac

Quinn, Mrs. James R.....2070 W. Valley Rd., Bloomfield Hills

Raynale, Mrs. George....423 Tooting Lane, Birmingham
Rech, Mrs. William.....1568 Welch Rd., Walled Lake
Reid, Mrs. Fred T.....18450 Riverside Dr., Birmingham
Riggs, Mrs. Harry....3499 Franklin Rd., Bloomfield Hills
Riker, Mrs. Aaron.....4050 Commerce Rd., Pontiac
Rowley, Mrs. L. G.....6700 Williams Lake Rd., Pontiac
Rupp, Mrs. Edson.....202 Crane Ave., Royal Oak
Rush, Mrs. Alva D.....4023 Far Hill Dr., Birmingham
Russell, Mrs. Vincent.....9 Elm Park Blvd., Pleasant Ridge
Ruva, Mrs. Joseph.....1280 Club Dr., Bloomfield Hills
Sansone, Mrs. Thomas.....2184 Somerset Rd., Pontiac
Schirle, Mrs. Joseph.....330 Lorberta Lane, Pontiac
Schuneman, Mrs. Howard A.....1312 Vinsetta, Pleasant Ridge
Sempere, Mrs. Charles.....2225 Avondale, Pontiac
Segula, Mrs. Robert.....6811 Williams Lake Rd., Drayton Plains
Sewell, Mrs. George.....6181 Indianwood Trail, Birmingham
Shadley, Mrs. Maxwell.....94 Ottawa Dr., Pontiac
Sheffield, Mrs. Loren.....4651 Motorway Dr., Pontiac
Sheridan, Mrs. F. M.....1018 Pinehurst, Royal Oak
Smith, Mrs. Donald.....135 Wenonah Dr., Pontiac
Smith, Mrs. George E.....4032 W. Orchard Hill, Birmingham
Somers, Mrs. Donald....4205 Valley Forge, Birmingham
Sommerville, Mrs. William.....145 Cambridge, Pleasant Ridge
Spencer, Mrs. L. H.....26039 Huntington, Huntington Woods
Spohn, Mrs. Earle.....414 Henrie Blvd., Royal Oak
Spoehr, Mrs. Eugene.....17 Elm Park Blvd., Pleasant Ridge
Stahl, Mrs. Harold.....850 Lapeer Rd., Oxford
Stanley, Mrs. William F.....24 Cambridge Blvd., Pleasant Ridge
Steffes, Mrs. Everett.....1724 Beverly, Berkley
Steinberg, Mrs. Norman....1028 Ardmoor, Birmingham
Sterling, Mrs. Robert R.....52 Oxford, Pleasant Ridge
Stuecheli, Mrs. Milton....1084 Willow Lane, Birmingham
Sutton, Mrs. Palmer.....1616 Vinsetta, Royal Oak
Vanden Berg, Mrs. Kenneth.....4045 Lakewood, Watkins Lake, Pontiac
Van Zoeren, Mrs. Jay.....1645 Derby Rd., Birmingham
Virga, Mrs. George.....1602 Cedar Hill, Royal Oak
Wake, Mrs. Douglas.....1406 Woodsboro, Royal Oak
Walser, Mrs. Howard.....1300 Northlawn, Birmingham
Wangner, Mrs. William.....2199 E. Maple, Birmingham
Watson, Mrs. Thomas.....1320 Latham, Birmingham
Weaver, Mrs. Arthur.....16 Thorpe, Pontiac
Webber, Mrs. Lynn.....7315 Cooley Lake Rd., Pontiac
Westfall, Mrs. Edwin.....3745 Cumberland, Berkley
Wessels, Mrs. Robert.....2152 Tottenham, Birmingham
Wegrzyn, Mrs. George.....2556 Endsleigh Dr., Birmingham
White, Mrs. R. Hamilton....552 Mohegan, Birmingham
Wigent, Mrs. Ralph.....101 Mohawk, Pontiac
Wilkinson, Mrs. Arthur.....843 Arlington, Birmingham
Williams, Mrs. John.....6570 Commerce Rd., Pontiac
Zacheim, Mrs. H. S.....13102 Talbot, Huntington Woods
Zimmerman, Mrs. Walter.....32340 Sylvan Lane, Birmingham
Zujko, Mrs. Alphonse.....132 Illinois, Pontiac

OTTAWA COUNTY

Arendshorst, Mrs. William.....131 E. 31st St., Holland
Beernink, Mrs. E. H.....430 Duncan Ct., Grand Haven
Bloemendaal, Mrs. Derk.....West Main, Zeeland
Bloemendaal, Mrs. Wm.....411 Woodlawn, Grand Haven
Boersma, Mrs. Vernon L.....97 E. 30th St., Holland
Bonzelaar, Mrs. Alvin.....888 Allens Dr., Holland
Cook, Mrs. Carl.....597 Crescent Dr., Holland
De Young, Mrs. Fred.....107 Barber, Spring Lake
Groat, Mrs. Frank.....633 Franklin, Grand Haven
Harms, Mrs. Herman P.....Waukazoo, Holland
Kemme, Mrs. Gerrit.....Route #3, Zeeland
Kools, Mrs. Willis.....194 West 11th St., Holland
Kuipers, Mrs. S. Walter.....93 E. 29th St., Holland
Nykamp, Mrs. Russell.....27 Maple, Zeeland
Rypkema, Mrs. William.....Gladys St., Grand Haven
Schaftenaar, Mrs. Richard.....86 E. 28th St., Holland
Smit, Mrs. George 129 W. 24th St., Holland
Ten Pas, Mrs. Henry.....293 W. 29th St., Holland
Van Appledorn, Mrs. Chester....1067 South Shore Dr., Holland
VandenBerg, Mrs. Ed.....69 W. 14th St., Holland
Vander Velde, Mrs. Otto.....1575 South Shore Dr., Holland
Ver Duine, Mrs. John.....1615 Gladys, Grand Haven
Wells, Mrs. Kenneth.....411 Barber, Spring Lake
Westrate, Mrs. Warren.....568 Central, Holland
Westrate, Mrs. William Sr.....617 State St., Holland
Westrate, Mrs. William, Jr.....55 West 14th St., Holland
Winter, Mrs. John.....726 State St., Holland
Winter, Mrs. William.....630 State St., Holland
Yff, Mrs. John.....511 East Central, Zeeland

SAGINAW COUNTY

Ackerman, Mrs. Gerald L.....316 Brockway Pl., Saginaw
Albers, Mrs. M. J.....218 Ardussi St., Saginaw
Anderson, Mrs. W. K.....845 St. Andrews Rd., Saginaw
App, Mrs. Robert G.....1911 Seminole St., Saginaw
Bass, Mrs. Vernon V.....916 Adams St., Saginaw
Bishop, Mrs. H. Mortimer.....28 Benton Rd., Saginaw
Brender, Mrs. Fredrick....105 Hubinger St., Frankenmuth
Bruggers, Mrs. Lawrence.....2543 North Woodbridge, Saginaw
Bucklin, Mrs. Robert.....2112 Adams Blvd., Saginaw
Bullington, Mrs. Bert M.....3 Davis Dr., Saginaw
Busch, Mrs. Frank J.....40 E. Hanum Rd., Saginaw
Butler, Mrs. Milton G.....1400 Hemmeter Rd., Saginaw
Cady, Mrs. Donald J.....2230 Hemmeter Rd., Saginaw
Cady, Mrs. Fredrick J.....8590 Gratiot Rd., Saginaw
Cady, Mrs. F. J., Jr.....61 Benton Rd., Saginaw
Cambridge, Mrs. Vernal W...1219 Fitzhugh St., Saginaw
Campbell, Mrs. Lloyd A.....335 Brockway Pl., Saginaw
Caumartin, Mrs. Hugh T.....1537 S. Washington St., Saginaw
Chisena, Mrs. Peter R.....6227 Dixie Hwy., Bridgeport
Claytor, Mrs. Archer A.....3320 Janes Rd., Saginaw
Cortopassi, Mrs. Andre J.....326 S. Washington St., Saginaw
Cortopassi, Mrs. V. E.....221 Ardussi St., Saginaw
Cory, Mrs. Charles W.....4 Ardmore Pl., Saginaw
Curts, Mrs. James H.....1 East Hannum Rd., Saginaw
Davenport, Mrs. Clyde P.....1626 Hanchett St., Saginaw
DeYoung, Mrs. William.....301 VanBuren St., Bay City
Durman, Mrs. Donald C.....1530 Ottawa Blvd., Saginaw
Ely, Mrs. Cecil W.....3735 Eaton Place, Saginaw
Farley, Mrs. A. W., Jr.....4470 Brockway Rd., Saginaw
Feeheley, Mrs. Robert D.....1621 Coolidge St., Saginaw
Fleschner, Mrs. Thomas E.....744 W. Birch Run Rd., Birch Run
Gage, Mrs. David P.....134 Borland St., Saginaw
Galsterer, Mrs. Edwin S.....417 Brockway Pl., Saginaw
Gamon, Mrs. Adam E.....905 N. Michigan Ave., Saginaw
Gardner, Mrs. Joseph H.....2503 Adams Blvd., Saginaw
Gerard, Mrs. Roy J.....450 Peace St., Saginaw

Gilmore, Mrs. Robert.....Box 7, Merrill
Goldner, Mrs. Richard.....8285 Dixie Hwy., Birch Run
Gomon, Mrs. Louis D.....16 Edgewood Rd., Saginaw
Goodsell, Mrs. John O.....132 Graham St., Saginaw
Hand, Mrs. Eugene A.....1487 South Washington, Saginaw
Harvie, Mrs. Lloyd.....417 Ardussi St., Saginaw
Heavenrich, Mrs. Robert M...225 Garden Lane, Saginaw
Hester, Mrs. Eustace G.....2525 N. Court St., Saginaw
Hill, Mrs. Victor L.....1270 Hemmeter Rd., Saginaw
Howell, Mrs. Donald W.....2112 Gratiot St., Saginaw
Hyslop, Mrs. William T.....2008 Harry St., Saginaw
Jaenichen, Mrs. Robert....419 South Weadock, Saginaw
Jarvi, Mrs. Rudolph M.....3051 Congress, Saginaw
Johnstone, Mrs. Kermit.....1050 Fischer Dr., Saginaw
Kerr, Mrs. William D.....1903 North Bond, Saginaw
Keyes, Mrs. James T.....8152 Maine St., Birch Run
Kickham, Mrs. Edward F.....2525 Mershon St., Saginaw
Kolesar, Mrs. Robert C.....2032 Harris St., Saginaw
Kowals, Mrs. Francis V.....1280 Glendale, Saginaw
Kramer, Mrs. Charles G.....1721 Brenner St., Saginaw
Kretschmer, Mrs. Thomas V.....700 Remington St., Saginaw
Lassignal, Mrs. Jules C.....1587 Delta Dr., Saginaw
Ling, Mrs. Kenneth C.....Hemlock
Lohr, Mrs. Oliver W.....1614 Madison St., Saginaw
Lohr, Mrs. Thomas O.....1135 North Michigan, Saginaw
Luger, Mrs. Fred E.....1970 N. River Rd., Saginaw
Lurie, Mrs. Robert I.....58 Davis Dr., Saginaw
MacKinnon, Mrs. Edwin.....1616 Court St., Saginaw
Mahaney, Mrs. Thomas.....212 South Granger St., Saginaw
Manning, Mrs. J. Edward.....6 Center Woods, Saginaw
Manning, Mrs. John W.....203 Ardussi St., Saginaw
Markey, Mrs. Francis L.....2011 Brockway St., Saginaw
Markey, Mrs. Joseph P.....2425 Adams Blvd., Saginaw
Martzowka, Mrs. William P.....2330 Delaware Blvd., Saginaw
Mason, Mrs. William P.....814 North Fayette St., Saginaw
Matthews, Mrs. Harry C.....1621 Lathrup St., Saginaw
Mayne, Mrs. Harold E.....1585 Glendale St., Saginaw
McEwen, Mrs. William G...820 Orchard Court, Saginaw
McKinney, Mrs. A. R.....1403 Howard St., Saginaw
Meyer, Mrs. Henry J.....6243 Dixie Hwy., Bridgeport
Miller, Mrs. Glenn F.....1803½ N. Michigan, Saginaw
Morgrette, Mrs. James.....1286 Avalon St., Saginaw
Mudd, Mrs. Richard D.....1001 Hoyt St., Saginaw
Murphy, Mrs. Albert P.....201 Superior St., Saginaw
Murray, Mrs. Morris J.....1925 Coolidge St., Saginaw
Naglins, Mrs. Jacob.....732 Emerson St., Saginaw
Nelson, Mrs. Oscar A.....1654 Lathrup, Saginaw
Northway, Mrs. Robert O.....12 Edgewood Rd., Saginaw
Novy, Mrs. Frank O.....420 South Jefferson, Saginaw
Olson, Mrs. Carl Porter.....2505 Court St., Saginaw
Ostrander, Mrs. Frank W.....Freeland
Phillips, Mrs. Homer A.....2420 Adams Blvd., Saginaw
Pietz, Mrs. Fredrick.....2139 Gratiot Ave., Saginaw
Potvin, Mrs. Clifford D.....206 So. Carolina St., Saginaw
Powers, Mrs. Robert F.....142 Wylie Court, Saginaw
Prather, Mrs. Perry.....2230 Marlou Court, Saginaw
Richards, Mrs. Ned W.....2111 Brockway St., Saginaw
Richter, Mrs. Harry J.....2305 Adams Blvd., Saginaw
Roggen, Mrs. Ivan.....402 W. Johnson St., Zilwaukee
Ruskin, Mrs. David B.....246 Lockwood St., Saginaw
Ryan, Mrs. Richard.....623 South Park St., Saginaw
Sample, Mrs. John T.....606 Rust St., Saginaw
Sargent, Mrs. Donald V.....4680 Ashland Dr., Saginaw
Schaiberger, Mrs. Elmer G.....P.O. Box 26, Birch Run
Schneider, Mrs. A. N.....1902 North Bond St., Saginaw
Sharp, Mrs. Martin C.....2202 Barnard St., Saginaw
Shek, Mrs. John L.....4115 Vera St., Saginaw
Sheldon, Mrs. Suel A..... 77 Elmview Court, Saginaw
Siler, Mrs. Delbert.....47 Ardmore Place, Saginaw
Skowronski, Mrs. Casimer A.....1401 E. Genesee Ave., Saginaw
Slack, Mrs. Walter K.....625 South Jefferson, Saginaw
Slade, Mrs. Homer G.....1667 South Washington, Saginaw
Smith, Mrs. Chandler.....St. Lukes Hosp., Saginaw
Stahly, Mrs. Edward.....1900 Coolidge St., Saginaw
Stander, Mrs. Carl A.....1411 Court St., Saginaw
Sulfridge, Mrs. Hugh F.....4505 North River Rd., Saginaw, R-3, Freeland
Thompson, Mrs. Arthur B.....2144 Ottawa St., Saginaw
Tiedke, Mrs. Gunther E...2339 Delaware Blvd., Saginaw
Toshach, Mrs. Clarence E.....3655 Schust Rd., Saginaw
Vitu, Mrs. Robert L.....4115 Vera St., Saginaw
Volk, Mrs. Vladimer K.....3340 Hospital Rd., Saginaw
Webb, Mrs. Walter.....3431 Rust St., Saginaw
Weiss, Mrs. Arno.....4945 Dundale St., Saginaw
Weiss, Mrs. Richard.....1931 Morson St., Saginaw
Westlund, Mrs. Norman.....131 South Charles St., Saginaw
Wright, Mrs. Edwin.....128 Lynn St., Saginaw
Yntema, Mrs. Stuart.....3 East Hannum Rd., Saginaw

ST. CLAIR COUNTY

Bailey, Mrs. Robert.....4589 Lakeshore Rd., Port Huron
Banting, Mrs. Kenneth C.....3540 Gratiot Ave., Port Huron
Barss, Mrs. Joseph A.....2815 Tenth Ave., Port Huron
Battley, Mrs. J. C. S.....2038 Military St., Port Huron
Beck, Mrs. Frank K.....2906 Military St., Port Huron
Beer, Mrs. Joseph F.....711 N. Riverside, St. Clair
Bennett, Mrs. W. G.....Yale
Borden, Mrs. Charles L.....4520 Lakeshore Rd., Port Huron
Bottomley, Mrs. Thomas H.....4996 Lakeshore Rd., Port Huron
Boughner, Mrs. Walter H.....325 Pleasant St., Algonac
Bowden, Mrs. Wm. S...130 Washington St., Marine City
Bridge, Mrs. Ezra.....416 Edison Blvd., Port Huron
Cleland, Mrs. William D.....1320 Court St., Port Huron
Clifford, Mrs. Robert P.....910 N. Riverside, St. Clair
Clyne, Mrs. Benjamin C.....Yale
Coury, Mrs. John J.....4234 Gratiot Ave., Port Huron
Cantwell, Mrs. John D.....3119 Conger St., Port Huron
Davison, Mrs. William.....2920 Military St., Port Huron
Dinnen, Mrs. William J...3202 Riverside Dr., Port Huron
Douvas, Mrs. Nicholas....4100 Gratiot Ave., Port Huron
Franke, Mrs. Armin T.....3173 Conger St., Port Huron
Gerritz, Mrs. James F.....1053 N. Riverside, St. Clair
Gholz, Mrs. Anthony C.....1407 Court St., Port Huron
Gilmore, Mrs. John R...4830 Lakeshore Rd., Port Huron
Holcomb, Mrs. Russel J.....809 S. Water, Marine City
Hazledine, Mrs. H. J.....4406 Gratiot Ave., Port Huron
Hoyt, Mrs. Charles N.....2548 Military St., Port Huron
Kirban, Mrs. Harry N...6040 Lakeshore Rd., Port Huron
Kirker, Mrs. F. O.....1601 N. River Rd., St. Clair
Koch, Mrs. Donald A...4802 Lakeshore Rd., Port Huron
Lauridsen, Mrs. James.....Conger Ave., Port Huron
Licker, Mrs. R. R.....215 Gratiot Blvd., Marysville
Ludwig, Mrs. Claud A.....3550 Stone St., Port Huron
Ludwig, Mrs. Frederick E.....2864 Military St., Port Huron
Lugg, Mrs. Robert M.....5023 Gratiot Ave., Port Huron
Meredith, Mrs. Evert W...4380 Gratiot Ave., Port Huron
Morris, Mrs. Alvin N.....816 Sanborn St., Port Huron
Mohney, Mrs. Glenn E.....4458 Gratiot Ave., Port Huron
Novak, Mrs. Walter S...3150 Waldheim Dr., Port Huron
Patterson, Mrs. D. W.....622 Huron Ave., Port Huron
Pollock, Mrs. Donald.....5014 Lakeshore, Port Huron
Rowe, Mrs. John.....3360 W. Water St., Port Huron
Schaefer, Mrs. Waldo A.....2551 Military St., Port Huron
Selby, Mrs. C. S.....1916 Military St., Port Huron
Serniak, Mrs. John.....140 S. Main St., Yale
Sites, Mrs. Edgar C.....2704 Military St., Port Huron

Tisdel, Mrs. James H.....2557 Military St., Port Huron
Tomsu, Mrs. Glenn.....3180 Gratiot Ave., Port Huron
Townley, Mrs. Charles O...2815 Military St., Port Huron
Treadgold, Mrs. Douglas....3205 Armour St., Port Huron
Ulmer, Mrs. Arthur H.....4318 Gratiot Ave., Port Huron
Van Rhee, Mrs. George....3137 Conger St., Port Huron
Walker, Mrs. Sidney....5090 Lakeshore Rd., Port Huron
Yost, Mrs. K. W.....1413 21st St., Port Huron

ST. JOSEPH COUNTY

Berg, Mrs. Lawrence A.....E. South, Sturgis
Braham, Mrs. Wilbur.....105 N. Lakeview, Sturgis
Brothers, Mrs. Paul.....205 Ilene, Sturgis
Brunson, Mrs. Allen E.....Mortinier, Sturgis
Evans, Mrs. Robert H.....105 S. Lakeview, Sturgis
Fiegel, Mrs. S. Albert.....500 Michigan, Sturgis
Fortner, Mrs. Roscoe J.....Route No. 1, Constantine
Jacobowitz, Mrs. John M.....222 West, Three Rivers
Lepard, Mrs. Olin.....606 E. Chicago, Sturgis
O'Dell, Mrs. Charles W.....E. Hoffman, Three Rivers
O'Dell, Mrs. John H.....721 Elm, Three Rivers
Penzotti, Mrs. Stanley C...402 Constantine, Three Rivers
Porter, Mrs. Clark G.....196 E. Michigan, Three Rivers
Schimnoski, Mrs. Donald.....Route No. 1, Three Rivers
Shaw, Mrs. George D.....Route No. 2, Three Rivers
Sheldon, Mrs. John P.....610 Cherry, Sturgis
Smith, Mrs. Robert D.....160 Palmer Ave., Colon
Storer, Mrs. William R.....132 S. Nottawa, Sturgis
Weisheit, Mrs. Heinz R.....200 Michigan, Sturgis
Zimont, Mrs. Ray D.....435 White Pigeon Rd., Constantine

SANILAC COUNTY

Blanchard, Mrs. Ernest W.....Deckerville
Cripps, Mrs. James.....Marlette
Gift, Mrs. Weldon A.....Marlette
Hart, Mrs. Robert.....Croswell
Jason, Mrs. Michall.....Marlette
Muir, Mrs. Neal.....Croswell
McCrea, Mrs. John W.....Marlette
McGunegle, Mrs. Keate T.....Sandusky
Smith, Mrs. Duane.....Brown City
Tweedie, Mrs. Evans G.....Sandusky
Tweedie, Mrs. Martin.....Sandusky
Webster, Mrs. John Clyde.....Marlette
Winfield, Mrs. Raymond.....Marlette

SHIAWASSEE COUNTY

Arnold, Mrs. Leston Ovid
Austin, Mrs. Eugene.....635 N. Ball St., Owosso
Bach, Mrs. Norman.....1201 N. Washington St., Owosso
Brown, Mrs. Richard C.....658 First St., Owosso
Brown, Mrs. Richard J.....915 W. King St., Owosso
Chipman, Mrs. Elwood.....502 W. Williams St., Owosso
Ford, Mrs. William J.....1107 W. Oliver St., Owosso
Graves, Mrs. James H.....150 S. Norton St., Corunna
Harroun, Mrs. Robert.....205 W. Oliver St., Owosso
MacGregor, Mrs. John.....202 Jennett St., Owosso
Manion, Mrs. John.....205 N. Cedar St., Owosso
Merz, Mrs. Walter L.....1409 N. Water St., R. R. No. 3, Owosso
Moore, Mrs. Philip J.....1423 Olmstead, Owosso
Pochert, Mrs. Roland C.....1254 N. Shiawassee, Owosso
Richards, Mrs. Chester.....Durand
Sahlmark, Mrs. Joseph.....203 N. Cedar, Owosso
Weston, Mrs. Claud.....1226 N. Washington St., Owosso

VAN BUREN COUNTY

Boothby, Mrs. Carl.....Hartford
Boothby, Mrs. Fred.....Box 218, Lawrence
Buckborough, Mrs. M. W.....Route 1, South Haven
Cooper, Mrs. Joseph.....210 Lincoln Ave., Bangor
Copeland, Mrs. Evan.....Decatur
Diephuis, Mrs. Bert.....42 Cass St., South Haven
Dillon, Mrs. Thomas J.....Paw Paw
Gano, Mrs. Avison.....38 E. Monroe, Bangor
Itzen, Mrs. John.....1023 Phoenix, South Haven
Holmes, Mrs. Leo.....Gobles
Johnson, Mrs. Harold C. A.....304 Oak St., Paw Paw
Kleber, Mrs. John.....551 N. Shore Dr., South Haven
Loomis, Mrs. F. J.....Box 106, Paw Paw
Morgan, Mrs. Dale....Box 387, R. R. No. 4, South Haven
Millard, Mrs. Dave.....315 Pine, Paw Paw
Parks, Mrs. Arthur.....Lawton
Stagg, Mrs. Adelbert.....9 N. Maple St., Hartford
Steele, Mrs. Arthur.....725 N. Kalamazoo, Paw Paw
Sundin, Mrs. Paul.....Decatur
Ten Houten, Mrs. Charles..215 N. Kalamazoo, Paw Paw
Urist, Mrs. Martin.....Route 1, South Haven
Young, Mrs. William.....Lawton

WASHTENAW COUNTY

Alexander, Mrs. John....788 Arlington Blvd., Ann Arbor
Alford, Mrs. Barry.....14001 Beck Rd., Plymouth
Allen, Mrs. Arthur W.....5 Harvard Place, Ann Arbor
Banghart, Mrs. Norman L...1250 Ferdon Rd., Ann Arbor
Barlow, Mrs. R. Craig.....1305 Arbor View Blvd., Ann Arbor
Barr, Mrs. Albert S.....1312 Brooklyn Ave., Ann Arbor
Barss, Mrs. William A.....1216 Westmoorland, Ypsilanti
Bassow, Mrs. Paul H.....2220 Washtenaw Ave., Ann Arbor
Bauer, Mrs. Gerhard H...1612 Granger Ave., Ann Arbor
Behrman, Mrs. Samuel J.....26 Harvard Pl., Ann Arbor
Beckett, Mrs. Morley B.....912 Honey Creek Dr., Ann Arbor
Beierwaltes, Mrs. Wm. H.....1204 Bydding Rd., Ann Arbor
Belote, Mrs. George H.....1710 Morton Ave., Ann Arbor
Bender, Mrs. Leonard F.....480 Huntington Dr., Ann Arbor
Bethell, Mrs. Frank H.....409 Lenawee Dr., Ann Arbor
Bicknell, Mrs. John N.....1381 Jeffrey St., Ypsilanti
Bird, Mrs. H. Waldo.....325 Barton Dr., Ann Arbor
Botch, Mrs. Edmund S.....906 Spring St., Ann Arbor
Brewer, Mrs. Wilson K...4255 Washtenaw Rd., Ypsilanti

Brown, Mrs. Wm. E., III.....1517 Granger, Ann Arbor
Bullington, Mrs. Donald.....309 E. Madison, Ann Arbor
Campbell, Mrs. Darrell.....617 Stratford Dr., Ann Arbor
Carron, Mrs. Dean P.....1707 Harding Rd., Ann Arbor
Cary, Mrs. Edward A.....1931 Lorraine Pl., Ann Arbor
Clyde, Mrs. Ensign.....1246 Sheridan, Plymouth
Coller, Mrs. Frederick.....2105 Wallingford Rd., Ann Arbor
Crook, Mrs. Clarence E.....2112 Wallingford, Ann Arbor
Cummings, Mrs. H. H.....1527 Packard Rd., Ann Arbor
Curtis, Mrs. Arthur C.....2905 Brockman, Ann Arbor
Davenport, Mrs. Fred M.....1038 Martin Pl., Ann Arbor
Davey, Mrs. Winthrop N.....2114 Victoria Circle, Ann Arbor
DeJong, Mrs. Russell N.....1526 Harding Rd., Ann Arbor
DeTar, Mrs. John.....55 W. Main St., Milan
DeWeese, Mrs. Marion S.....20 Heatheridge, Ann Arbor
Dingman, Mrs. Reed.....1407 Lincoln, Ann Arbor
Dolfin, Mrs. Wilbur E.....2210 Melrose, Ann Arbor
Donaldson, Mrs. S. W.....2128 Melrose, Ann Arbor
Doorn, Mrs. Henry.....1110 Miner, Ann Arbor
Dukay, Mrs. Alexander.....Box A, Ypsilanti State Hosp., Ypsilanti
Eberhard, Mrs. Theodore.....2210 Hill St., Ann Arbor
Edmunds, Mrs. Wm. F.....1303 Westmoorland, Ypsilanti
Edwards, Mrs. Aaron R.....916 Church St., Ann Arbor
Engelke, Mrs. Otto K.....810 Hutchins, Ann Arbor
English, Mrs. David.....1699 Broadway, Ann Arbor
Evans, Mrs. T. N.....1001 Belmont Ave., Ann Arbor
Falls, Mrs. Harold F.....1525 Harding Rd., Ann Arbor
Fink, Mrs. George C.....411 Linda Vista, Ann Arbor
Fisher, Mrs. Joseph V.....415 Washington, Chelsea
Fox, Mrs. Winslow G.....307 Linda Vista, Ann Arbor
Fralick, Mrs. F. Bruce.....2101 Belmont Rd., Ann Arbor
Frost, Mrs. Lyle W.....309 N. Washington, Ypsilanti
Frye, Mrs. Carl H.....2025 Hill St., Ann Arbor
Furstenberg, Mrs. A. C.....2240 Belmont Rd., Ann Arbor
Ganzhorn, Mrs. Edwin C.....2705 Whitmore Lake Rd., Ann Arbor
Geist, Mrs. James H.....1604 Dexter Rd., Ann Arbor
Getting, Mrs. Vlado A.....1200 Arlington Blvd., Ann Arbor
Goldsmith, Mrs. Robert I.....1211 Prospect, Ann Arbor
Golloway, Mrs. Glenn G.....Ypsilanti State Hosp., Ypsilanti
Gotz, Mrs. Alexander.....709 Sunset Rd., Ann Arbor
Gould, Mrs. Stuart M.....2309 Yost Blvd., Ann Arbor
Grawn, Mrs. Frank A.....604 Pearl St., Ypsilanti
Hagerman, Mrs. George W.....2124 Tuomy Rd., Ann Arbor
Haight, Mrs. Cameron.....2112 Vinewood, Ann Arbor
Hammond, Mrs. Walter.....1312 Maple St., Plymouth
Harrell, Mrs. E. Richard.....2212 Copley, Ann Arbor
Harris, Mrs. Bradley M.....206 S. Washington St., Ypsilanti
Harris, Mrs. Scott T.....1144 Roosevelt Blvd., Ypsilanti
Henderson, Mrs. John W.....2113 Devonshire Rd., Ann Arbor
Hicks, Mrs. Richard B.....Ypsilanti State Hosp., Ypsilanti
Hildebrandt, Mrs. H. Mark.....1223 Morningside Dr., Ann Arbor
Himler, Mrs. Leonard E.....1225 Fair Oaks Pkwy., Ann Arbor
Hodges, Mrs. Fred J.....5 Highland Lane, Ann Arbor
Holt, Mrs. John F.....250 Orchard Hills Dr., Ann Arbor
House, Mrs. Frederick R.....1240 Crosby Crescent, Ann Arbor
Howard, Mrs. W. Leonard.....47787 W. Eight Mile Rd., Northville
Johnston, Mrs. Franklin.....1761 Westridge Rd., Ann Arbor
Kabza, Mrs. Theodore G.....2222 Parkwood, Ann Arbor
Kambly, Mrs. Arnold H.....1602 Leaird, Ann Arbor
Kemper, Mrs. John W.....320 Juniper Lane, Ann Arbor
Kern, Mrs. Wheeler H.....24801 Fairmount, Dearborn
Kershul, Mrs. Victor W.....1128 W. Washington, Ann Arbor
Kivi, Mrs. Louis P.....1619 Kirtland Dr., Ann Arbor
Krigbaum, Mrs. Edmund M.....1518 Edgewood, Ann Arbor
LaFever, Mrs. S. L.....2131 Melrose, Ann Arbor
LaVielle, Mrs. Carroll J.....1500 Kirtland Dr., Ann Arbor
Lindquist, Mrs. Leo A.....726 Oakland, Ann Arbor
Lovell, Mrs. Robert G.....725 Sunset Rd., Ann Arbor
Lowry, Mrs. Claude M.....1707 Shadford Rd., Ann Arbor
Mackenzie, Mrs. James W.....1624 Winsted, Ann Arbor
Magee, Mrs. Kenneth R.....1109 Heatherway, Ann Arbor
Magielski, Mrs. John E.....2355 Londonderry, Ann Arbor
Marshall, Mrs. Mark.....918 Forest, Ann Arbor
Martin, Mrs. Donald W.....212 N. Mansfield Rd., Ypsilanti
Maxwell, Mrs. James H.....2139 Melrose, Ann Arbor
McWilliams, Mrs. John R.....2402 Brockman, Ann Arbor
Milford, Mrs. Albert E.....1203 Whittier, Ypsilanti
Moore, Mrs. Kenneth B...Ypsilanti State Hosp., Ypsilanti
Muehlig, Mrs. George F.....1520 White St., Ann Arbor
Newton, Mrs. Charles W...2120 Wallingford, Ann Arbor
Nobel, Mrs. Rudolf E.....707 E. Kingsley, Ann Arbor
Obenauf, Mrs. Walter H.....3501 Willis Rd., Ypsilanti
O'Connor, Mrs. Gerald A.....1230 Creal Crescent, Ann Arbor
Payne, Mrs. Beverly C.....245 Orchard Hills Dr., Ann Arbor
Petrohelos, Mrs. Menos A.....2564 Hawthorne Rd., Ann Arbor
Place, Mrs. Edwin.....2616 Hawthorne Rd., Ann Arbor
Pollard, Mrs. H. Marvin.....2012 Vinewood, Ann Arbor
Rae, Mrs. James.....2401 Geddes Ave., Ann Arbor
Raphael, Mrs. Theophile....430 Hillspur Rd., Ann Arbor
Ratliff, Mrs. R. K.....231 Corrie Rd., Ann Arbor
Rehner, Mrs. Robert C.....1506 Golden Ave., Ann Arbor
Reichert, Mrs. R. E., Jr.....1046 Baldwin, Ann Arbor
Reinhart, Mrs. Melvin J.....870 S. First St., Ann Arbor
Rekshan, Mrs. Wm. R.....47558 N. Shore Dr., Ann Arbor
Riggs, Mrs. Harold W.....2119 Devonshire Rd., Ann Arbor
Robinson, Mrs. William D.....1616 E. Stadium Blvd., Ann Arbor
Ross, Mrs. C. Howard....180 Underdown Rd., Ann Arbor
Saunders, Mrs. Allen.....1008 Pauline Blvd., Ann Arbor
Sayre, Mrs. George S.....1208 Whittier, Ypsilanti
Schneider, Mrs. Richard C.....1101 Pauline Blvd., Ann Arbor
Schoch, Mrs. Henry K.....670 Hampstead Lane, Ann Arbor
Schumacher, Mrs. W. E.....1475 Stein Rd., Ann Arbor
Scovill, Mrs. Henry A.....1313 W. Cross St., Ypsilanti
Seevers, Mrs. Maurice H.....620 Oxford Rd., Ann Arbor
Sheldon, Mrs. John M.....2121 Tuomy Rd., Ann Arbor
Shubeck, Mrs. Frank.....807 Bruce St., Ann Arbor
Sink, Mrs. Emory W.....1546 Packard Rd., Ann Arbor
Slee, Mrs. Vergil N.....2111 Arbor View, Ann Arbor
Sloan, Mrs. Herbert E.....1718 Shadford Rd., Ann Arbor
Smillie, Mrs. John W.....2615 Overridge Dr., Ann Arbor
Smith, Mrs. Edwin M.....1720 Chandler, Ann Arbor
Smith, Mrs. Russell F.....11693 Kenton Dr., Whitmore Lake
Spears, Mrs. Clarence W.....1307 Pearl St., Ypsilanti
Struthers, Mrs. James N. P.....Ypsilanti State Hosp., Ypsilanti
Sturgis, Mrs. Cyrus C.....609 Stratford Dr., Ann Arbor
Tanay, Mrs. Emanuel....Ypsilanti State Hosp., Ypsilanti
Taylor, Mrs. Wm. B.....2520 Devonshire Rd., Ann Arbor
Thieme, Mrs. E. Thurston.....3 Geddes Heights, Ann Arbor
Timmons, Mrs. Robert L.....1207 Prescott, Ann Arbor
Towsley, Mrs. Harry.....1000 Berkshire Rd., Ann Arbor
Tupper, Mrs. Charles J.....2416 Medford Court, Ann Arbor
Tytus, Mrs. John S.....805 Heatherway, Ann Arbor
Van Duzen, Mrs. Verne L.....Ypsilanti State Hosp., Ypsilanti
Waggoner, Mrs. Raymond..3333 Geddes Rd., Ann Arbor
Weisman, Mrs. Raoul L.....1408 Wells, Ann Arbor
Westover, Mrs. Charles.....1405 W. Maple St., Plymouth

Wicht, Mrs. Paul J.....1385 W. Michigan Ave., Ypsilanti
Williams, Mrs. Howard R.....1508 Granger Ave., Ann Arbor
Williamson, Mrs. Frederick....922 Pleasant Dr., Ypsilanti
Willis, Mrs. Park W.....519 Linden St., Ann Arbor
Wilson, Mrs. James L.....1801 Hermitage Rd., Ann Arbor

WAYNE COUNTY

Adamiam, Mrs. Gerald.....755 Golf Crest Dr., Dearborn
Adams, Mrs. James R.....751 Morley Court, Dearborn
Akroyd, Mrs. Cecil.....19635 Shrewsbury, Detroit 21
Albrecht, Mrs. Albert.....17167 Fairfield, Detroit 21
Albrecht, Mrs. Herman P...877 Chicago Blvd., Detroit 2
Alexander, Mrs. Eugene.....24140 Wilson, Dearborn
Amos, Mrs. T. Grover.....2708 Woodstock Dr., Detroit 3
Anderson, Mrs. James O.....7715 Middlepointe, Dearborn
Andries, Mrs. George H.....17365 Muriland, Detroit 21
Arehart, Mrs. Burke W.....65 Merriweather Rd., Grosse Pte. Farms
Arminski, Mrs. Thomas C.....16874 Muirland, Detroit 21
Ashe, Mrs. Stilson R.....12 Byfield Lane, Dearborn
Ashley, Mrs. L. Byron.....18050 Fairway Dr., Detroit 21
August, Mrs. Harry E.....26081 Hendrie Blvd., Huntington Woods
Axelson, Mrs. A. U.....15840 Windmill Pte. Dr., Grosse Pte. 30
Babcock, Mrs. Warren W.....18254 Oak Dr., Detroit 21
Bagley, Mrs. Harry E.....7541 Oakman Blvd., Dearborn
Bailey, Mrs. C. C.....12824 Broadstreet, Detroit 38
Bailey, Mrs. Louis J.....620 Vinewood, Birmingham
Barbaglia, Mrs. Louis..1308 Hampton Rd., Grosse Pte. 36
Barber, Mrs. Ray.....990 S. Harvey, Plymouth
Barnett, Mrs. Louis L...8 Millington Rd., Pleasant Ridge
Barone, Mrs. Chas. J.....51 Eason Ave., Highland Park 3
Barone, Mrs. C. Gerald.....1851 Crosswick, Birmingham
Barrett, Mrs. Wyman D.....91 Touraine, Grosse Pte. 36
Barron, Mrs. James.....2535 Amberly Rd., Birmingham
Bauer, Mrs. Lester E.....4 Woodside Park, Pleasant Ridge
Baumgarten, Mrs. E. C.....1062 Lochmoor, Grosse Pte. 36
Beach, Mrs. Watson.....281 Kenwood Ct., Grosse Pte. 36
Beamer, Mrs. George D.....15834 Longmeadow, Dearborn
Bedwell, Mrs. William L.....183 Ridgemont Rd., Grosse Pte. 36
Beeuwkes, Mrs. Lambertus..13014 Mackenzie, Detroit 28
Behan, Mrs. Robert C.....1353 Balfour, Grosse Pte. 30
Bell, Mrs. J. Kenner....49 Rhode Island, Highland Park 3
Berlien, Mrs. Ivan C.....2906 E. Jefferson, Detroit 7
Best, Mrs. Edward....1229 Three Mile Dr., Grosse Pte. 30
Bethea, Mrs. Hardee....279 Kenwood Ct., Grosse Pte. 36
Bielawski, Mrs. John G.....8124 E. Morrow Circle, Detroit 4
Birch, Mrs. John R.....161 Vendome, Grosse Pte. 36
Birkhill, Mrs. Frederick.....19510 Roslyn Rd., Detroit 21
Bittrich, Mrs. N. M.....7474 LaSalle Blvd., Detroit 6
Blain, Mrs. Alexander..1028 Berkshire Rd., Grosse Pte. 30
Block, Mrs. Duane.....13930 Abington, Detroit 27
Block, Mrs. Melvin.....795 Lakeland, Grosse Pte. 30
Blodgett, Mrs. Wm. H.....535 Overhill Rd., Birmingham
Bogue, Mrs. Robt. E.....19161 Lancashire, Detroit 23
Bolstad, Mrs. Donald.....225 S. Silvery Lane, Dearborn
Bolter, Mrs. Sidney.....18890 Delaware, Detroit 19
Boutrous, Mrs. Thomas A.....18508 Sorrento, Detroit 35
Bowers, Mrs. Leo J.....47 Cambridge, Pleasant Ridge
Bracken, Mrs. Andrew H.....7540 Oakman, Dearborn
Braley, Mrs. Wm. N.....19300 Riverside Dr., Birmingham
Breneman, Mrs. Gerald.....16926 Thirteen Mile, Birmingham
Briggs, Mrs. William.....4121 Harvard Rd., Detroit 24
Brines, Mrs. Osborne A.....1415 Parker, Apt. 266, Detroit 14
Bringard, Mrs. Elmer.....18110 Fairfield, Detroit 21
Bristol, Mrs. William R.....6142 Bishop, Detroit 24
Broadman, Mrs. Sylvan....25705 Middlebelt, Farmington
Bronson, Mrs. Wm. W.....845 Lone Pine Rd., Bloomfield Twp.
Brooks, Mrs. Clark D.....17196 Fairway Dr., Detroit 21
Brosius, Mrs. William L.....16150 Sorrento, Detroit 35
Brown, Mrs. Andrew G.....13991 Asbury Park, Detroit 27
Brown, Mrs. Audrey O.....46 Oakdale Blvd., Pleasant Ridge
Brown, Mrs. Gordon T.....8355 E. Outer Dr., Detroit 13
Brush, Mrs. Brock E.....22313 Cherry Hill, Dearborn
Bruton, Mrs. Martin F...280 Stephens Rd., Grosse Pte. 36
Bryan, Mrs. John B...30540 Rock Creek Dr., Birmingham
Buerki, Mrs. Robin C.....201 Lake Shore, Grosse Pte. 36
Buesser, Mrs. Frederick G...8106 E. Jefferson, Detroit 14
Burke, Mrs. Ralph Martin.....580 University Place, Grosse Pte. 30
Burnham, Mrs. David C.....3900 Oakhills Dr., Birmingham
Burns, Mrs. Robert T.....4610 Somerset, Detroit 24
Burr, Mrs. George.....2016 W. Boston Blvd., Detroit 6
Burroughs, Mrs. Roswell.....31624 Auburn Dr., Birmingham
Butler, Mrs. Joseph P.....1726 W. Chicago, Detroit
Caldwell, Mrs. John R.....4850 Bryn Mawr Rd., Birmingham
Calkins, Mrs. H. Neill.....15302 Gilchrist, Detroit 27
Campbell, Mrs. Mac D.....3 Dylvan Rd., Pleasant Ridge
Campbell, Mrs. Robert E...943 Fisher Rd., Grosse Pte. 30
Candler, Mrs. Clarence L.....1690 Faircourt, Grosse Pte. 36
Caputo, Mrs. Joseph M.....22575 Nona, Dearborn
Carbone, Mrs. Louis.....487 Lakeland, Grosse Pte. 30
Carnes, Mrs. Harry E.....652 Lincoln Rd., Grosse Pte. 30
Carpenter, Mrs. Claire H.....18701 Snowden, Detroit 35
Carrick, Mrs. Lee....506 Lakeshore Lane, Grosse Pte. 36
Carter, Mrs. John M.....18900 Fairway Dr., Detroit 21
Carter, Mrs. Leland F.....750 Middlesex Rd., Grosse Pte. 30
Caughey, Mrs. Andrew F., Jr.....8911 Marygrove Dr., Detroit 21
Chall, Mrs. Henry G.....2941 W. McNichols, Detroit 21
Chapin, Mrs. Sidney E.....425 Golf Crest Dr., Dearborn
Charleston, Mrs. Roderick.....17256 Pierson, Detroit 19
Chester, Mrs. William P.....2916 Seminole, Detroit 14
Chipman, Mrs. Williard A.....14613 Rutland Rd., Detroit 27
Christensen, Mrs. C. A.....7876 Hartwell, Dearborn
Christopher, Mrs. James..9515 W. Outer Dr., Detroit 23
Clark, Mrs. Arthur M.....318 Beechmont, Dearborn
Clark, Mrs. Harold E.....2896 W. Big Beaver Rd., Birmingham R.R.
Clarke, Mrs. Robert B.....385 University Place, Grosse Pte. 30
Clifford, Mrs. T. P.....4355 Glendale Ave., Detroit 38
Cochrane, Mrs. Edgar G.....13974 Archdale Rd., Detroit 27
Cole, Mrs. James E.....15322 Stahelin, Detroit 23
Colvin, Mrs. Leslie T.....18470 Scarsdale, Detroit 28
Connelly, Mrs. Richard C.....1360 Three Mile Dr., Grosse Pte. 30
Connolly, Mrs. Paul J...16778 Westmoreland, Detroit 19
Cook, Mrs. James C.....5 Fairmont Ct., Dearborn
Cooksey, Mrs. Warren B.....19510 Stratford Dr., Detroit 21
Cooper, Mrs. Benjamin F.....1124 Berkshire, Grosse Pte. 30
Cooper, Mrs. Edmond L.....914 Shirley, Birmingham
Cooper, Mrs. Ralph.....15610 Linnhurst, Detroit 5
Cooper, Mrs. Richard F.....23130 Wilson, Dearborn
Corbett, Mrs. John J.....57 Merriweather Rd., Grosse Pte. 36
Costello, Mrs. Russell T.....2850 Pine Lake Dr., Pontiac
Courville, Mrs. Charles....19719 Whitcomb, Detroit 35
Craig, Mrs. Roy E.....22740 Carolina, St. Clair Shores

Croll, Mrs. Maurice.....18003 Muirland, Detroit 21
Crook, Mrs. Charles L.....60 Colorado, Highland Park 3
Croushore, Mrs. James E.....1185 Westward, Birmingham
Cushing, Mrs. Russell G.....643 Lochmoor, Grosse Pte. 36
Cusick, Mrs. Paul L.....17575 Oak Dr., Detroit 21

Dale, Mrs. Edward C.....380 Fisher, Grosse Pte. 30
Dale, Mrs. Mark.....4595 Pickering, Birmingham
Danforth, Mrs. Robert D...1960 Oxford, Grosse Pte. 36
Darling, Mrs. Charles.....14401 Glastonbury Rd., Detroit 23
Darling, Mrs. Milton A.....8100 LaSalle Blvd., Detroit 6
Davies, Mrs. Windsor S...1013 Audubon, Grosse Pte. 30
DeFever, Mrs. Cyril R.....1113 Kensington Rd., Grosse Pte. 30
DeGiustino, Mrs. Caesar....1435 Berkshire, Grosse Pte. 30
DeJongh, Mrs. Edwin.....3880 W. Lincoln Rd., Birmingham
DeNike, Mrs. A. James.....2906 E. Jefferson, Detroit 7
Derleth, Mrs. Paul E.....563 W. Oakridge, Ferndale 20
DeSpelder, Mrs. R. E.....1452 Yorkshire, Grosse Pte. 30
Devine, Mrs. Herbert W...1315 Harvard, Grosse Pte. 30
Dickman, Mrs. Fred C.....19701 Burt Rd., Detroit 19
Dill, Mrs. J. Lewis.....18615 Birchcrest, Detroit 21
Dimond, Mrs. George E.....6853 Orchard, Dearborn
Ditzler, Mrs. John W.....581 Rivard Blvd., Grosse Pte. 30
Doering, Mrs. Wendell R.....27489 Lathrup, Lathrup Village
Dolega, Mrs. Stanley F.....366 Moross, Grosse Pte. 36
Dolgoff, Mrs. Sidney.....9855 Melbourne, Allen Park
Donald, Mrs. Douglas.....8120 E. Jefferson, Detroit 14
Dorsey, Mrs. John M.....65 Moss, Highland Park 3
Doub, Mrs. Howard P.....18234 Wildmere, Detroit 21
Downer, Mrs. Ira G.....435 Lodge Dr., Detroit 14
Draves, Mrs. Edward F.....14541 Grandmont, Detroit 27
Drazek, Mrs. Joseph.....19633 Riverview, Detroit 19
Dubin, Mrs. Joseph J.....1420 Strathcona, Detroit 3
Dubois, Mrs. Paul W.....630 Merrick, Detroit 2
Dudek, Mrs. John J.....17166 Parkside, Detroit 21
Dumke, Mrs. Paul R.....544 Middlesex Blvd., Grosse Pte. 30
Dundas, Mrs. Edward.....1235 Beechmont, Dearborn
Dunlap, Mrs. Henry A...505 Lakepointe, Grosse Pte. 30
Dunn, Mrs. Cornelius E.....3496 Burns, Detroit 14
Dupler, Mrs. Gerald.....1126 Mayburn, Dearborn
Durham, Mrs. Everett W.....1730 Hawthorne, Dearborn
Dutcher, Mrs. Dwight J.....21742 Newcastle, Grosse Pte. 36
Duwe, Mrs. Frank A.....17580 Avilla, Lathrup Village
Dziuba, Mrs. John.....17230 Bentler, Detroit 19

Eldredge, Mrs. Edward F.....310 Moross, Grosse Pte. 30
Elvidge, Mrs. R. J.....18013 Hamilton, Detroit 21
Ensign, Mrs. Dwight C.....Franklin
Eschbach, Mrs. Joseph W.....410 River Lane, Dearborn
Evans, Mrs. Gomer.....2328 Stanhope, Grosse Pte. 36
Evans, Mrs. Joseph M.....12862 E. Outer Dr., Detroit 24
Ewing, Mrs. C. H.....526 University Pla., Grosse Pte. 30
Eyler, Mrs. William R...18347 Bedford Rd., Birmingham

Fallis, Mrs. L. S.....2474 Chicago Blvd., Detroit 6
Farnam, Mrs. Larry.....16775 St. Paul, Grosse Pte. 30
Felcyn, Mrs. W. G.....2091 W. Grand Blvd., Detroit 8
Fellers, Mrs. R. L.....4984 Ridgewood, Detroit 4
Fenton, Mrs. Edwin.....14831 Warwick, Detroit 23
Fenton, Mrs. Russell F.....18469 Hillcrest Blvd., Birmingham
Ferris, Mrs. G. N.....16745 Oakfield, Detroit 35
Figiel, Mrs. Leo.....719 Berkshire, Grosse Pte. 30
Figiel, Mrs. Steven J....6648 Oakman Blvd., Dearborn
Fisher, Mrs. C. L.....791 University Pl., Grosse Pte. 30
Fisher, Mrs. James M.....176 Merriweather Rd., Grosse Pte. 36
Fitzgerald, Mrs. James.....16838 Huntington, Detroit 19
Flaherty, Mrs. Henry J.....27360 Rainbow Circle, Lathrup Village
Flaherty, Mrs. Norman..24315 Fairmount Dr., Dearborn
Flaherty, Mrs. Samuel A.....14015 Warwick, Detroit 23
Flora, Mrs. William R.....589 Pemberton, Grosse Pte. 30
Fogt, Mrs. Robert G...720 Hidden Lane, Grosse Pte. 36
Font, Mrs. Anthony J...29539 W. Six Mile Rd., Livonia
Ford, Mrs. George A.....18934 Fairfield, Detroit 21
Fordell, Mrs. Frank.....411 Woodcrest Dr., Dearborn
Fosnaugh, Mrs. Robert P.....6214 Appoline, Detroit
Foster, Mrs. William L.....15316 Piedmont, Detroit 23
Frame, Mrs. Boy.....1051 Covington, Detroit 3
France, Mrs. C. Jackson.....3401 Burns, Detroit 14
Franjac, Mrs. Marion.....37355 W. Eight Mile Rd., Livonia
Frederickson, Mrs. George.....1450 Oxford Rd., Grosse Pte. 36
Freitas, Mrs. Eugene L.....19914 Fairway, Grosse Pte. 36
Frey, Mrs. James L.....17144 Westmoreland, Detroit 19
Fryfogle, Mrs. James D.....24500 Inkster, Farmington

Gajewski, Mrs. John R.....1320 Grayton, Grosse Pte. 30
Ganschow, Mrs. John H.....10025 Nadine, Huntington Woods
Gardner, Mrs. Lawrence W.....18782 Glenwood, Lathrup Village
Gardner, Mrs. Max L...1158 Yorkshire, Grosse Pte. 30
Gaston, Mrs. Herbert B.....7501 W. Morrow Circle, Dearborn
Gehring, Mrs. Harold W.....17607 Magnolia Pkwy., Detroit 35
Geib, Mrs. Ledru (Deceased).....1411 Berkshire, Grosse Pte. 30
Gerisch, Mrs. Robt.....19441 Bretton Dr., Detroit 23
Gerondale, Mrs. E. J.....15000 Dexter Blvd., Detroit 21
Gillespie, Mrs. Stephen.....1638 DaCosta, Dearborn
Gittins, Mrs. Perry.....20210 Renfrew Rd., Detroit 21
Glowacki, Mrs. Ben F.....840 Jonathan Lane, Bloomfield Hills
Gordon, Mrs. J. Whitlock....12700 Mendota, Detroit 4
Gottlieb, Mrs. Jacques S.....7111 Fairhill Rd., Birmingham
Goux, Mrs. Raymond S.....17566 Muriland, Detroit 21
Grace, Mrs. Joseph M.....27453 Rainbow Circle, Lathrup Village
Granger, Mrs. George R.....88 Renaud Rd., Grosse Pte. 36
Graves, Mrs. James H.....1304 Buckingham, Grosse Pte. 30
Gravelle, Mrs. Lawrence J.....1156 Yorkshire Rd., Grosse Pointe 30
Gray, Mrs. Jacques P.....8900 E. Jefferson, Apt. 913 Detroit 14
Green, Mrs. Edward W.....30024 Champine Dr., St. Clair Shores
Green, Mrs. Louis M.....1230 N. Oxford Rd., Grosse Pte. 36
Green, Mrs. Nelson W.....107 Elm Pk., Pleasant Ridge
Greenlee, Mrs. William T...15239 Cedargrove, Detroit 5
Gregory, Mrs. Louis.....15220 Collingham, Detroit 5
Greiner, Mrs. Bert.....8900 E. Jefferson, Detroit 14
Griffin, Mrs. Robert J.....965 W. Crescent Lane, Grosse Pte. 36
Grossman, Mrs. Sol C.....20015 Shrewsbury, Detroit 21
Gruerrero, Mrs. Jose.....4285 Glendale, Detroit 4
Gurdjian, Mrs. E. S.....19385 Renfrew Rd., Detroit 21
Guyton, Mrs. Jack S...402 University Pl., Grosse Pte. 30

Hague, Mrs. Gilbert....22419 St. Joan, St. Clair Shores
Haintinger, Mrs. Kalman S.....1134 Beaconsfield, Grosse Pte. 30
Hall, Mrs. E. Walter.....14189 Rosemont, Detroit 23
Hall, Mrs. Winthrop D.....6 Cherry Hill Ct., Dearborn
Hallen, Mrs. L. James.....14032 Ohio, Detroit 38
Hamil, Mrs. Brenton M.....12 Adams Lane, Dearborn
Hamilton, Mrs. Quentin P.....16287 Mendota, Detroit 21
Hammer, Mrs. Roy W.....17340 Runyon, Detroit 34
Hansen, Mrs. Frederick E.....120 Glynn Ct., Apt. 700, Detroit 2
Harley, Mrs. Louis M.....17325 Fairfield, Detroit 21
Harm, Mrs. Winfred B.....16260 Cherrylawn, Detroit 21
Harris, Mrs. Harold H.....7350 Oakman, Dearborn

Hartmann, Mrs. Blanche B.....7661 LaSalle Blvd., Detroit 6
Hasley, Mrs. Clyde K.....2320 N. LaSalle Garden, Detroit 6
Hassig, Mrs. Walter W...161 Stephens, Grosse Pte. 36
Hastings, Mrs. Orville J.....10427 E. Outer Dr., Detroit 24
Hauser, Mrs. I. Jerome.....1980 Strathcoma Dr., Detroit 21
Hauser, Mrs. John E.....688 Hamilton, Birmingham
Havers, Mrs. Howard.....271 Kenwood Ct., Grosse Pte. 36
Hazen, Mrs. Roy S.....15371 Stout, Detroit 23
Hedgman, Mrs. E. Chester.....2325 Chicago Blvd., Detroit 6
Heideman, Mrs. Louis E.....18010 Roselawn, Detroit 21
Heldt, Mrs. Richard F.....18491 Ardmore, Detroit 35
Henderson, Mrs. Leslie T.....832 N. Renaud, Grosse Pte. 36
Herbst, Mrs. Harold B.....20482 Ardmore, Detroit 35
Herwick, Mrs. John T.....18731 Glenwood, Lathrup Village
Hess, Mrs. Murray W.....23860 Seneca, Oak Park
Heyner, Mrs. S. A.....3424 Oakman Blvd., Detroit 4
Hickey, Mrs. Joseph.....24346 Fairmount Dr., Dearborn
Hicks, Mrs. Frederick G.....1000 Westwood, Birmingham
Hillenbrand, Mrs. Alfred.....675 Fisher Rd., Grosse Pte. 30
Hoagland, Mrs. Thomas V.....630 W. Hildale, Detroit 3
Hodges, Mrs. Frank J.....7407 Oakman Blvd., Dearborn
Hodges, Mrs. Jason.....1200 S. Oxford Rd., Grosse Pte. 36
Hodgkinson, Mrs. C. Paul.....17546 Meadowwood, Lathrup Village
Hoffman, Mrs. Edwin S.....14877 Warwick, Detroit 23
Holt, Mrs. Charles J., Jr.....1575 Faircourt, Grosse Pte.
Hopkins, Mrs. William J.....16626 Fairfield, Detroit 21
Horn, Mrs. Robert C.....505 Pemberton Rd., Grosse Pte. 30
Howard, Mrs. Austin Z.....15492 Ashton Rd., Detroit 23
Howell, Mrs. James T.....29707 California Dr. E., Lathrup Village
Howes, Mrs. Homer A.....9322 Artesian, Detroit 28
Howlett, Mrs. Howart T...20026 Shrewsbury, Detroit 21
Hranchook, Mrs. Michael....5042 Havelhill, Detroit 24
H'Romadko, Mrs. Louis....Martel Dr., Bloomfield Hills
Huber, Mrs. Philip.....1724 Bassett, Royal Oak
Hudson, Mrs. Wm. A.....2290 Edison, Detroit 6
Hulick, Mrs. Archie.....15525 Amherst, Birmingham
Hume, Mrs. H. Ross.....118 Meadow Lane, Grosse Pte 36
Huminski, Mrs. T. S.....1232 Devonshire, Grosse Pte. 30
Hummel, Mrs. A. R.....1020 Three Mile Dr., Grosse Pte. 30
Hunt, Mrs. Theodore H.....10095 E. Outer Dr., Detroit 24
Husband, Mrs. Charles W.....19450 Argyle, Crescent 3
Husband, Mrs. Raymond C.....530 Overhill Rd., Birmingham
Hutchins, Mrs. M. Colton.....28010 Goldengate, Lathrup Village
Hyde, Mrs. Frederick, Jr.....14255 Faust, Detroit 23

Iacobell, Mrs. Peter H.....870 Lakeshore Rd., Grosse Pte.
Igna, Mrs. E. J.....16924 St. Paul, Grosse Pte. 30
Insley, Mrs. Stanley W.....12880 Archdale, Detroit 27
Irvin, Mrs. Earle.....1343 Buckingham Rd., Grosse Pte. 30
Irwin, Mrs. William A.....2130 Iroquois, Detroit 14

Jacobus, Mrs. Wayne....21535 Kingsville, Harper Woods
Jaekel, Mrs. C. N.....443 Lexington, Grosse Pte. 36
Jaffar, Mrs. Donald J.....630 Merrick, Detroit 2
Jahsman, Mrs. Wm. E.....700 Seward, Apt. 210, Detroit 2
Jarvis, Mrs. Harold F.....14066 Linnhurst, Detroit 5
Jeffries, Mrs. Benjamin....1010 Harvard, Grosse Pte. 30
Jend, Mrs. William, Jr.....7027 Riverside Dr., Dearborn
Jennings, Mrs. Charles G...356 Hillcrest, Grosse Pte. 36
Jennings, Mrs. Elmer R.....370 Moross, Grosse Pte. 36
Jensen, Mrs. V. W.....532 Lincoln, Grosse Pte. 30
John, Mrs. Hubert R.....265 Merton Rd., Apt. 104, Detroit 3
Johnson, Mrs. Ralph A.....2115 Iroquois, Detroit 14
Johnson, Mrs. Vernon P...502 Pemberton, Grosse Pte. 30
Johnson, Mrs. Vincent C.....345 Lodge Dr., Detroit 14
Johnson, Mrs. Wilbur.....3500 Harvard, Detroit 24
Joinville, Mrs. E. V.....3879 Riverside Dr., Windsor, Ont.
Jones, Mrs. Roy D.....7747 Seven Mile Rd., Detroit 21
Joyce, Mrs. Stanley J.....2040 W. McNichols Rd., Detroit

Kamil, Mrs. Richard.....18024 Warrington, Detroit 21
Kaplita, Mrs. Walter A.....60 Fontana Lane, Grosse Pte. 36
Kauppinen, Mrs. J. A.....19246 Nadol, Detroit 19
Keane, Mrs. William E.....1007 Harvard Rd., Grosse Pte. 30
Kehoe, Mrs. Henry J.....91 Renaud Rd., Grosse Pte. 36
Keim, Mrs. Harther L.....369 University Pl., Grosse Pte. 30
Kelley, Mrs. Frank J.....440 Lothrop Rd., Grosse Pte. 36
Kennary, Mrs. James M.....2250 Iroquois, Detroit 14
Killins, Mrs. Charles G.....7710 E. Jefferson, Detroit 14
King, Mrs. Edward C.....270 Rivard Blvd., Grosse Pte. 30
Knaggs, Mrs. Charles W.....1209 Yorkshire, Grosse Pte. 30
Knighton, Mrs. Robert S.....27486 Lathrup, Lathrup Village
Knights, Mrs. Edwin, Jr.....373 Rivard Blvd., Grosse Pte. 30
Koebel, Mrs. R. H.....640 Bedford, Grosse Pte. 30
Kokowicz, Mrs. R. J...1151 Buckingham, Grosse Pte. 30
Korum, Mrs. Lyle W.....210 Lothrop Rd., Grosse Pte. Frms. 36
Kossayda, Mrs. Adam W.....22331 Wilson, Dearborn
Krabbenhoft, Mrs. Kenneth..27 Oakdale, Pleasant Ridge
Krebs, Mrs. Wm. T.....269 Kenwood Ct., Grosse Pte. 36
Kretzschmar, Mrs. J. C.....3060 Seminole, Detroit 14
Krynicki, Mrs. Francis X.....17127 Muirland, Detroit 21
Kuhn, Mrs. Albert E.....186 W. Hildale, Detroit 3
Kujawski, Mrs. Walter.....20897 Littlestone, Harper Woods 36
Kulaski, Mrs. Chester H.....7500 E. Robinwood, Detroit 34

LaHood, Mrs. Michael J.....17300 Cornell, Detroit 35
Laige, Mrs. Raymond....1257 Audubon, Grosse Pte. 30
LaMarche, Mrs. Norman O.....4139 Wakefield Rd., St. Johns Woods
Lammy, Mrs. James V.....3797 Wakefield, Berkley
Lampman, Mrs. H. H.....42 Puritan, Highland Park 3
Lang, Mrs. Ernest F.....280 Cloverly Rd., Grosse Pte. 36
Lange, Mrs. Anthony H.....4502 Grayton Rd., Detroit 24
Laning, Mrs. George M.....2025 W. Six Mile Rd., Highland Park 3
Lasichak, Mrs. Andrew.....8502 Sussex, Detroit 28
Leader, Mrs. Luther R.....Cranbrook Rd., Bloomfield Hills
Lechner, Mrs. Monroe..14284 Rosemary Ave., Detroit 13
Leibinger, Mrs. Henry R.....511 Barrington Rd., Grosse Pte. 30
Lepley, Mrs. Fred O.....1125 Three Mile Dr., Grosse Pte. 30
Leszynski, Mrs. Joseph.....8120 E. Jefferson, Apt. 2N, Detroit 14
Levagood, Mrs. Floyd B.....14056 Artesian, Detroit 23
Lichter, Mrs. Max L.....19320 Berkley, Detroit 21
Liddicoat, Mrs. Arthur G.....18300 Bretton Dr., Detroit 23
Lightbody, Mrs. James J.....195 Piper Blvd., Detroit 15
Lignell, Mrs. Rudolph W.....18109 San Juan, Detroit 21
Lilly, Mrs. Charles J.....16649 Princeton, Detroit 21
Little, Mrs. James W.....3855 Shallow Brook, Bloomfield Hills
Livingood, Mrs. Clarence.....2950 Iroquois, Detroit 14

Lofstrom, Mrs. James E...265 Williams, Grosse Pte. 36
Longo, Mrs. Salvatore S.....918 Barrington Rd., Grosse Pte. 30
Loranger, Mrs. Clifford B.....888 Lake Shore Rd., Grosse Pte. 36
Loucks, Mrs. R. E.....29915 13 Mile Rd., Farmington
Lovas, Mrs. William S.....10 Hampton Ct., Dearborn
Lowe, Mrs. Adolf W.....17117 Parkside, Detroit 21
Lowrie, Mrs. Wm. L.....Hilltop Lane, Birmingham
Lukas, Mrs. John L.....24365 Rockford, Dearborn
Lutz, Mrs. Earl F.....6178 Lantern Lane, Foxcroft, Birmingham
Lynn, Mrs. Harvey D.....18285 Birchcrest Dr., Detroit 21
Lytle, Mrs. Robert P.....7065 Pinewood Ct., Birmingham

McAlonan, Mrs. Wm. T.....630 Merrick Ave., Detroit 2
McCadie, Mrs. James H.....14241 Artesian, Detroit 23
McClellan, Mrs. Gustave L.....2046 W. Boston Blvd., Detroit 6
McClellan, Mrs. Robert J.....20651 Orangelawn, Detroit 38
McColl, Mrs. Clarke M.....19701 Chesterfield, Detroit 21
McCormick, Mrs. Colin C.....24352 Rockford Dr., Dearborn
McCormick, Mrs. Frank T.....859 Longfellow, Detroit 2
McDonald, Mrs. Angus L.....81 Meadow Lane, Grosse Pte. 30
McDonald, Mrs. Allen W.....15015 Ward, Detroit 27
McDonald, Mrs. Wm. G.....9347 Becker, Allen Park
McEvitt, Mrs. William G.....1140 W. Boston Blvd., Detroit 2
McGough, Mrs. Joseph.....14574 Rutland, Detroit 27
McGraw, Mrs. Arthur B.....70 Kenwood Rd., Grosse Pte. 30
McIntosh, Mrs. Robert D.....6529 Burnly, Garden City
McIntyre, Mrs. Wm. B.....1233 Audubon Rd., Grosse Pte. 30
McKeever, Mrs. George E.....1767 Culver, Dearborn
McKnight, Mrs. Robert E.....17364 Muirland, Detroit 21
McLean, Mrs. Don W.....26720 Bloomfield Dr., Lathrup Village
McNichol, Mrs. Lawrence J.....15033 Littlefield, Detroit 27
McRae, Mrs. Donald H.....259 W. Grand Blvd., Detroit 16
MacFarlane, Mrs. Howard W.....3476 Seminole, Detroit 14
MacGregor, Mrs. W. Wilbur.....6320 W. Surrey, Foxcroft, Birmingham
Mackersie, Mrs. William....18205 Roselawn, Detroit 21
MacQueen, Mrs. Malcolm D.....2165 Burns, Detroit 14
Maczewski, Mrs. John E.....1357 Sunningdale, Grosse Pte. 36
Mainwaring, Mrs. Rosser L.....1910 Russell Ave., Dearborn
Malone, Mrs. John M.....20446 Freeland, Detroit 35
Maloney, Mrs. John A.....22635 W. 10½ Mile, Rte. 3, Box 11, Birmingham
Mancuso, Mrs. Vincent S.....962 E. Grand Blvd., Detroit 7
Mapletoft, Mrs. Kenneth.....420 Mohawk, Dearborn
Marecki, Mrs. Vincent J.....9869 Chatham, Allen Park
Marks, Mrs. Bert W.....8250 Lincoln, Huntington Woods
Marsh, Mrs. Alton R.....15696 Woodlawn, Dearborn
Martin, Mrs. Peter A.....17185 Muirland, Detroit 21
Martmer, Mrs. Edgar E.....693 Washington Rd., Grosse Pte. 30
May, Mrs. Frederick T.....28580 Eldorado, Lathrup Village
Meek, Mrs. Stuart F.....13020 Kilbourne, Detroit 13
Menagh, Mrs. Frank R.....4010 Columbus, Detroit 4
Merrill, Mrs. William O.....W. Long Lake Rd., Bloomfield Hills
Metes, Mrs. John S.....1261 Fairholme Rd., Grosse Pte. 36
Metzger, Mrs. Harry.....25504 Wareham Dr., Huntington Woods
Michael, Mrs. Michael J.....938 S. Renaud Rd., Grosse Pte. 36
Mitchell, Augustus W.....257 Campbell, River Rouge
Mitchell, Mrs. C. Leslie.....34 Hendrie Lane, Grosse Pte. 36
Molnar, Mrs. Stephen K.....434 S. Highland, Dearborn
Molner, Mrs. Joseph G.....14890 Glastonbury, Detroit 23
Monson, Mrs. Robert C.....1070 N. Renaud, Grosse Pte. 36
Monto, Mrs. Raymond W.....27879 Lathrup, Lathrup Village
Mopper, Mrs. Coleman....18716 Littlefield, Detroit 21
Morita, Mrs. Yoshikazu.....131 Wendelton Rd., Birmingham
Morley, Mrs. Harold V.....200 Hampshire Ct., Dearborn
Moroun, Mrs. S. J.....203 Lakeland, Grosse Pte. 30
Moseley, Mrs. Frederick....9152 LaSalle Blvd., Detroit 6
Moses, Mrs. John W.....505 Townsend, Birmingham
Mossman, Mrs. John D...18914 Warrington, Detroit 21
Munson, Mrs. Henry.....466 Rivard, Grosse Pte. 30
Murray, Mrs. William A.....11841 Ohio, Detroit 4
Myers, Mrs. Dan W...1150 Bedford Rd., Grosse Pte. 30

Nahigian, Mrs. Russell....17371 Annchester, Detroit 19
Nehra, Mrs. John M.....662 Renaud Rd., Grosse Pte. 36
Nelson, Mrs. Darwin M.....63 Ridge Rd., Grosse Pte. 36
Newman, Mrs. George F.....39550 Haggerty Ct., Northville
Nickel, Mrs. Warren.....3154 Lincoln, Dearborn
Norton, Mrs. A. B.....18615 Muirland, Detroit 21
Noshay, Mrs. William C.....2672 W. Long Lake Rd., R. 2, Orchard Lake
Novy, Mrs. Robert L.....2910 Iroquois, Detroit 14

Oetting, Mrs. Edward M.....2923 Iroquis, Detroit 14
Ohmart, Mrs. Galen B.....2150 Iroquis, Detroit 14
Olmsted, Mrs. George S.....3535 Burning Bush Rd., Birmingham
Olson, Mrs. James A...19 Norwich Rd., Pleasant Ridge
Oman, Mrs. Cyrus F.....12608 Wyoming, Detroit 38
Ormond, Mrs. Robert S.....9039 Annapolis, Detroit 4
O'Rourke, Mrs. Paul V.....17725 Manderson, Detroit 3
O'Sullivan, Mrs. G. S.....18129 Sunnybrook, Lathrup Village
Otlewski, Mrs. Eugene A.....4367 Grayton, Detroit 24
Owen, Mrs. Clarence I.....1544 Vinewood, Detroit 16

Park, Mrs. Charles.....8414 Salem Lane, Dearborn
Parr, Mrs. Robt. Wesley.....18049 San Juan Dr., Detroit 21
Parsons, Mrs. John P.....808 Grand Marais, Grosse Pte. 30
Pasternacki, Mrs. Norbert..7730 E. Jefferson, Detroit 14
Payne, Mrs. Walter A.....357 Hillcrest, Grosse Pte.
Pedersen, Mrs. Herbert E...381 Golfcrest Dr., Dearborn
Peggs, Mrs. George F.....411 Meadowlane Rd., Dearborn
Pendy, Mrs. George V.....20170 Renfrew, Detroit 21
Pendy, Mrs. John M.....896 Lochmoor, Grosse Pte. 30
Perkin, Mrs. Frank S.....325 Lakeland, Grosse Pte. 30
Peterman, Mrs. Earl A.....19515 Cumberland Way, Detroit 3
Petrini, Mrs. Mario A.....13905 Robson, Detroit
Petty, Mrs. Thomas A.....1204 Yorkshire Rd., Grosse Pte. 30
Peven, Mrs. Philip.....19565 Roslyn, Detroit 35
Picard, Mrs. Joseph D.....501 Woodcrest, Dearborn
Pichette, Mrs. J. W.....627 Morley Ct., Dearborn
Pickard, Mrs. O. W.....20208 Lichfield, Detroit 21
Pietra, Mrs. Alex D.....1176 Bishop Rd., Grosse Pte. 30
Pingel, Mrs. James..10637 W. Ten Mile, Oak Park 37
Polentz, Mrs. Charles P.....13450 Irvine, Oak Park 37
Poretta, Mrs. F. S.....8156 Normile, Detroit 4
Porter, Mrs. Frederick G.....19756 Lesure, Detroit 35
Posch, Mrs. Joseph L.....853 N. Brys Drive, Grosse Pte. 36
Potter, Mrs. L. S.....287 Merriweather, Grosse Pte. 36
Pratt, Mrs. Jean P.....18910 Fairway Dr., Detroit 21
Priborsky, Mrs. Benj. H.....3005 Iroquois, Detroit 14
Price, Mrs. Hazen.....18605 Birchcrest, Detroit 21
Priest, Mrs. Robert J.....9312 Faust, Detroit 28
Procailo, Mrs. A. B.....1940 N. Russell, Dearborn

Purcell, Mrs. Frank H.....869 Edgemonte Park, Grosse Pte. 30
Quigley, Mrs. Wm. G.....16540 Warwick, Detroit 19
Quinn, Mrs. Edward L.....1141 Golfvew, Birmingham

Ramsey, Mrs. Robert H.....310 River Lane, Dearborn
Rastello, Mrs. Peter.....4333 Sturtevant, Detroit 4
Rebuck, Mrs. John W.....16955 Beverly Rd., Birmingham
Reddings, Mrs. Lowell G.....1104 Claremont, Dearborn
Redfern, Mrs. W. Earl....17392 Kirkshire, Birmingham
Reed, Mrs. Joseph O., Jr.....448 Lincoln, Grosse Pte. 30
Reed, Mrs. H. Walter.....8141 Dexter Blvd., Detroit 6
Reid, Mrs. Wesley C.....17556 Parkside, Detroit 21
Reive, Mrs. David L.....16002 Oak Dr., Livonia
Rennell, Mrs. Leo P.....18222 Fairfield, Detroit 21
Reno, Mrs. George.....18060 Rutherford, Detroit 35
Reveno, Mrs. William S.....19398 Stratford Rd., Detroit 21
Reyner, Mrs. Clarence E.....19999 Startford Rd., Detroit 21
Reynolds, Mrs. R. P.....17521 Hamilton Dr., Detroit 3
Rhoades, Mrs. Francis P.....272 Ashland, Detroit 15
Rice, Mrs. Harold B.....20420 Briarcliff, Detroit 21
Ritter, Mrs. George..28420 Sunset Dr., Lathrup Village
Rizzo, Mrs. Albert.....13505 Greiner, Detroit 5
Robb, Mrs. J. Milton.....315 Lakeland, Grosse Pte. 30
Roeglin, Mrs. Orville F.....4386 Balfour, Detroit 24
Roman, Mrs. S. J.....25531 Avondale, Inkster
Ronayne, Mrs. John J.....14042 Rutland, Detroit 27
Ross, Mrs. Donald G.....635 Neff Rd., Grosse Pte. 30
Rotarius, Mrs. Edw. M.....1030 S. Brys Dr., Grosse Pte. 36
Royer, Mrs. Richard R.....3533 Harvard, Detroit 24
Ruedemann, Mrs. Albert D.....1018 Three Mile Dr., Grosse Pte. 30
Ruedemann, Mrs. Albert, Jr.....242 Lewiston Rd,. Grosse Pte. 36
Runge, Mrs. E. F.....25549 Rouge River, Dearborn
Rupp, Mrs. Jacob R.....51 Holbrook, Apt. 208, Detroit

Sadler, Mrs. H. Harrison.....594 Rivard, Grosse Pte. 30
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274 E. Chicago, Coldwater

CALHOUN COUNTY
Number of Members, 57

Aldridge, Mrs. Dorothy.....P. C. Kingsley M.D.
John Robbert, M.D.
Richard Allen, M.D.
191 College St., Battle Creek

Alspaugh, Mrs. Kathleen.....R. J. Campbell, M.D.
J. R. Power, M.D.
C. D. Stephenson, M.D.
140 N.E. Capital, Battle Creek

Bacon, Mrs. Velma.....Paul J. Diamante, M.D.
1704 Wolverine Tower, Battle Creek

Ball, Mrs. Catherine.....A. S. Kimball, M.D.
Kimball Sanatorium, Battle Creek

Bauer, Miss Lorene.....Community Hospital
Battle Creek

Borr, Mrs. Charlotte.....R. J. Campbell, M.D.
J. R. Power, M.D.
C. D. Stephenson, M.D.
140 N. E. Capital, Battle Creek

Bothwell, Mrs. Jane.....H. R. Bodine, M.D.
716 Michigan Nat'l Bank, Battle Creek

Callahan, Mrs. Mary.....R. L. Mustard, M.D.
R. A. Stiefel, M.D.
J. W. Hubly, M.D.
E. M. Chandler, M.D.
1407 Security Bank, Battle Creek

Chamberlain, Mrs. Marian.....George Zindler, M.D.
1206 Security Bank, Battle Creek

Clark, Mrs. Jane.....M. J. Capron, M.D.
M. J. Capron, Jr., M.D.
618 Post Bldg., Battle Creek

Coakes, Mrs. Rosemary.....Jack E. Coakes, M.D.
112 W. Mansion, Marshall

Culver, Miss Harriett.....E. L. Hansen, M.D.
216 North Ave., Battle Creek

Dart, Mrs. Jean.....G. W. Slagle, M.D.
R. W. Brown, M.D.
203 N. E. Capital, Battle Creek

Davis, Miss Sally.....R. L. Mustard, M.D.
R. A. Stiefel, M.D.
J. W. Hubly, M.D.
E. M. Chandler, M.D.
1407 Security Bank, Battle Creek

Distelhurst, Mrs. Nancy.....E. J. Klopp, M.D.
1015 Security Bank, Battle Creek

Doane, Mrs. Kay.....Francis L. Lam, M.D.
408 S. W. Capital, Battle Creek

Fetzer, Miss Ruth.....Arthur A. Humphrey, M.D.
1602 Security Bank, Battle Creek

Foust, Mrs. Pearl.....Paul J. Diamante, M.D.
1704 Wolverine Tower, Battle Creek

Gibson, Mrs. Emma.....S. A. Yannitelli, M.D.
1331 W. Michigan, Battle Creek

Globensky, Mrs. Nan.....Sheldon Memorial Hospital
Albion

Goodell, Miss Frances.....E. L. Hansen, M.D.
216 North Ave., Battle Creek

Greene, Mrs. Alta.....R. L. Mustard, M.D.
R. A. Stiefel, M.D.
J. W. Hubly, M.D.
E. M. Chandler, M.D.
1407 Security Bank, Battle Creek

Griffin, Mrs. Donna.....G. W. Slagle, M.D.
R. W. Brown, M.D.
203 N. E. Capital, Battle Creek

Griffith, Mrs. Dolores.....Jack C. Griffith, M.D.
1407 Security Bank, Battle Creek

Grodi, Mrs. Ruth.....R. K. Curry, M.D.
Homer

Hawkins, Mrs. Marlene.....G. W. Slagle, M.D.
R. W. Brown, M.D.
203 N. E. Capital, Battle Creek

Jarchow, Mrs. Dorothy.....P. C. Kingsley, M.D.
John Robbert, M.D.
Richard Allen, M.D.
191 College St., Battle Creek

Jerrell, Mrs. Frances.....P. C. Kingsley, M.D.
John Robbert, M.D.
Richard Allen, M.D.
191 College St., Battle Creek

Johnson, Miss Dorothy.....Bertram Zheutlin, M.D.
50 Adams, Battle Creek

Jones, Mrs. Helen.....M. J. Capron, M.D.
M. J. Capron, Jr., M.D.
618 Post Bldg., Battle Creek

Jones, Mrs. Marian.....T. K. Jones, M.D.
118 W. Green, Marshall

Kern, Miss Margaret.....Kenneth E. Way, M.D.
111 N. Jefferson, Marshall

Lassen, Mrs. Elva.....R. S. Simpson, M.D.
1507 Wolverine Tower, Battle Creek

Leatherberry, Miss Donna.....E. L. Hansen, M.D.
216 North Ave., Battle Creek

Lewis, Mrs. Jean.....R. L. Mustard, M.D.
R. A. Stiefel, M.D.
J. W. Hubly, M.D.
E. M. Chandler, M.D.
1407 Security Bank, Battle Creek

Lewis, Mrs. Mary.....D. K. Hibbs, M.D.
623 Post Bldg., Battle Creek

McCray, Mrs. Jean.....R. J. Campbell, M.D.
J. R. Power, M.D.
C. D. Stephenson, M.D.
140 N. E. Capital, Battle Creek

Miller, Mrs. Joan.....P. C. Kingsley, M.D.
John Robbert, M.D.
Richard Allen, M.D.
191 College St., Battle Creek

Miller, Mrs. Thelma.....Stephen Fairbanks, M.D.
306 S. Superior, Albion

Miner, Miss Ruth.....F. J. Strohmenger, M.D.
400½ S. Superior, Albion

Moffett, Miss Irene.....L. P. Shipp, M.D.
1414 Security Bank, Battle Creek

Morgan, Miss Sylvia.....Sheldon Memorial Hospital
Albion

Parent, Mrs. Frances.....R. J. Campbell, M.D.
J. R. Power, M.D.
C. D. Stephenson, M.D.
140 N. E. Capital, Battle Creek

Rising, Mrs. Dorothy.....R. J. Curry, M.D.
Homer

Roberts, Miss Joan.....Alfred Hamady, M.D.
Patrick S. Ferazzi, M.D.
140 N. E. Capital, Battle Creek

Schlottman, Mrs. Ruby.....C. M. Mercer, M.D.
512 Michigan Nat'l Bank, Battle Creek

Shedd, Mrs. Reta.....C. M. Spencer, M.D.
308½ S. Superior, Albion

Siddell, Mrs. Suzzanne.....Alfred Hamady, M.D.
Patrick E. Ferazzi, M.D.
140 N. E. Capital, Battle Creek

Slager, Mrs. Katherine.....P. C. Kingsley, M.D.
John Robbert, M.D.
Richard Allen, M.D.
191 College, Battle Creek

Summerfield, Mrs. Mary.....Kenneth E. Way, M.D.
111 N. Jefferson, Marshall

Sutton, Mrs. Margaret.....R. L. Mustard, M.D.
R. A. Stiefel, M.D.
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1407 Security Bank, Battle Creek

Thompson, Mrs. Betty.....P. C. Kingsley, M.D.
John Robbert, M.D.
Richard Allen, M.D.
191 College, Battle Creek

Trudgeon, Mrs. June.....J. E. Rosenfeld, M.D.
158 N. E. Capital, Battle Creek

Vandervoort, Mrs. Betty.....L. R. Keagle, M.D.
196 North Ave., Battle Creek

Williams, Mrs. Helen.....Alice F. Campbell, M.D.
103 E. Mulberry, Albion

Associate Members

Robinson, Mrs. Athelyn....204 W. Roosevelt, Battle Creek

Taylor, Mrs. Addie.....5 John R. St., Battle Creek

DETROIT

Number of Members, 70

Anderson, Wilma.....J. E. Reid, M.D.
J. J. Horvath, M.D.
1337 David Whitney Bldg., Detroit 26

Bachman, Theresa.....Wm. A. Summers, M.D.
1613 David Whitney Bldg., Detroit 26

Badowski, Cecelia.....Walter L. Anderson, M.D.
1217 David Whitney Bldg., Detroit 26

Baker, Helen C.....Memorial Hospital Clinic
23700 Van Dyke, Van Dyke

Ball, Babs Sophie.....“Doctors” Group
2336 Van Alstyne, Wyandotte

Barbaglia, Regina M.....E. C. Baumgarten, M.D.
T. W. Baumgarten, M.D.
8045 E. Jefferson, Detroit 14

Bartlett, Esther G.....R. L. Novy, M.D.
858 Fisher Bldg., Detroit 2

Baxmann, Marsha.....M. S. Brent, M.D.
N. L. Feldman, M.D.
11420 Mack, Detroit 14

Belasco, Velma.....E. T. Capuzzi, M.D.
790 W. Main, Northville

Bush, Geraldine.....Louis Schwartz, M.D.
861 Fischer Rd., Detroit

Cadieuz, Luella.....Harry B. Schmidt, M.D.
667 Fisher Bldg., Detroit

Capshaw, Mrs. Alice.....Roy D. Tupper, M.D.
15105 W. Seven Mile Rd., Detroit 19

Ceaser, Ruth.....C. W. Lepard, M.D.
1025 David Whitney Bldg., Detroit 26

Clemens, Ida R.....Jacob Wenzel, M.D.
1006 Kales Bldg., Detroit 26

Clinton, Patricia.....Mervin B. Levy, M.D.
23200 Woodward, Ferndale 20

Coffman, Sara.....E. A. Osius, M.D.
901 David Whitney Bldg., Detroit 26

Cousineau, Thelma M.....Charles Gitlin, M.D.
15301 W. Nine Mile Rd., Oak Park 37

Cross, Rae.....E. J. Sieber, M.D.
J. W. Pichette, M.D.
15112 Michigan, Dearborn

Currier, Mildred.....F. B. Wight, M.D.
1052 David Whitney Bldg., Detroit 26

Davidovich, Nada.....S. W. Trythall, M.D.
13300 Livernois, Detroit 38

Davis, Leonora.....J. Stewart Hudson, M.D.
17443 E. Jefferson, Grosse Pointe 30

Dick, Mary Jane.....Clarence V. Smith, M.D.
1716 E. Grand Blvd., Detroit 11

Drake, Margaret.....E. A. Hoffman, M.D.
7615 W. Vernor, Detroit 9

Eifert, Margaret.....Harther L. Keim, M.D.
1110 David Broderick Tower, Detroit 26

Foley, Colleen.....V. A. Kelmenson, M.D.
Wehenkel Clinic
7356-12th St., Detroit 6

Folgman, Millicent.....Bruce Proctor, M.D.
1229 David Whitney Bldg., Detroit 26

French, Adeline.....Robert W. Parr, M.D.
8-265 General Motors Bldg., Detroit 2

Funk, Vicky.....Herman Kiefer Hospital
1151 Taylor, Detroit 2

Gotts, Audrey.....L. M. Hotchkiss, M.D.
33220 W. Seven Mile Rd., Livonia

Grabowski, Mary-Rose.....J. L. Posch, M.D.
1405 Kales Bldg., Detroit 26

Graham, Ruth L.....Howard G. West, M.D.
12739 Puritan, Detroit 27

Gustaf, Barbara.....M. S. Brent, M.D.
13503 Northlawn, Detroit 38

Heidelberger, Freda.....Walter T. Anderson, M.D.
923 David Whitney Bldg., Detroit 26

Hoffman, Jean E. A. Hoffman, M.D.
7615 W. Vernor, Detroit 9

Jarrad, Doris.....L. Fernald Foster, M.D.
D. Bruce Wiley, M.D.
c/o MSMS, 1010 Antietam, Detroit 7

Johnson, Mrs. Joyce.....N. A. Feldman, M.D.
M. S. Brent, M.D.
11420 Mack Ave., Detroit

Karl, Mary Ann.....Nathan Brooks, M.D.
1001 Kales Bldg., Detroit 26

Kotsch, Elizabeth.....W. L. Anderson, M.D.
1217 David Whitney Bldg., Detroit 26

Kuhn, Gaige.....Russell M. Atchison, M.D.
501 W. Dunlap, Northville

Larry, Joan.....Francis B. MacMillan, M.D.
920 David Whitney Bldg., Detroit 26

Lojowski, Lydia.....Robert J. Elvidge, M.D.
2900 W. Grand Blvd., Detroit 2

Ludin, Gilda.....Warren Sheldon, M.D.
14215 W. McNichols, Detroit 35

Magby, Marjorie.....Howard O. Gray, M.D.
1308 Broadway, Detroit 26

Malkey, Grace.....W. R. Moore, M.D.
R. K. Whiteley, M.D.
541 David Whitney Bldg., Detroit 26

Marsh, Mabel.....Nathan Levitt, M.D.
607 Kales Bldg., Detroit 26

Maze, Thomas V.....Medical Center
8233 W. Chicago, Detroit 4

Meyers, Virginia.....James Barron, M.D.
Henry Ford Hospital, Detroit 2

Miller, Miss Katherine.....B. F. Seabrooks, M.D.
9136 Oakland Ave., Detroit

Morgan, Dorothe.....Fred B. Fisher, M.D.
205 Professional Bldg., Detroit 1

Murphy, Patricia.....R. J. Crossen, M.D.
902 David Whitney Bldg., Detroit 26

Navin, Mary.....W. S. Reveno, M.D.
968 Fisher Bldg., Detroit 2

Redman, Marlouise.....W. R. Moore, M.D.
R. K. Whiteley, M.D.
541 David Whitney Bldg., Detroit 26

Ring, Louise.....E. J. Tamblyn, M.D.
15315 E. Jefferson, Detroit 13

Rogers, Virginia.....A. W. Blain, M.D.
2201 E. Jefferson, Detroit 7

Schneider, Loretta.....J. M. Robb, M.D.
633 David Whitney Bldg., Detroit 26

Sidick, Mary.....L. R. Leader, M.D.
1129 David Whitney Bldg., Detroit 26

Smith, Sadie L.....E. A. Osius, M.D.
901 David Whitney Bldg., Detroit 26

Sper, Louise.....Wm. M. Tuttle, M.D.
1151 Taylor, Detroit 2

Stanfield, Oletha D.....John Lumpkin, M.D.
243 E. Warren, Detroit 1

Stark, Mary C.....Ben C. Ross, M.D.
4493 14th St., Detroit 8
Steckel, Cora.....M. S. Brent, M.D.
N. L. Feldman, M.D.
11420 Mack, Detroit 14
Stuart, Laura.....J. L. Pouka, M.D.
Henry Ford Hospital, Detroit 2
Taylor, Ferne.....John B. Rieger, M.D.
1265 David Whitney Bldg., Detroit 26
Todt, Claire M.....J. P. Hubbard, M.D.
14620 E. Seven Mile Rd., Detroit 5
Voss, Loretta.....Ormond Geib, M.D.
National Bank Bldg., Rochester
Webster, Sarah.....H. A. Sullivan, M.D.
1053 David Whitney Bldg., Detroit 26
Whitcomb, Gwen.....W. S. Reveno, M.D.
968 Fisher Bldg., Detroit 2
Wolfe, Mary Rose.....Arch Walls, M.D.
17201 W. McNichols, Detroit 35
Zack, Maxine.....T. I. Bergman, M.D.
16435 Woodward, Detroit 3
Zelle, Elizabeth.....S. W. Trythall, M.D.
R. C. Jeremias, M.D.
13300 Livernois, Detroit 38

EATON COUNTY

Number of Members, 9

Cole, Mrs. Helen E.....B. P. Brown, M.D.
339 S. Cochran, Charlotte
Cooper, Mrs. Sally.....R. E. Landick, M.D.
111 S. Cochran, Charlotte
Fuller, Mrs. Catherine E.....C. L. DeLand, M.D.
121 S. Main, Olivet
Jordan, Mrs. Mary E.....Eaton Rapids Community Hosp.
Eaton Rapids
Paine, Mrs. Ruth E.....R. E. Landick, M.D.
111 S. Cochran, Charlotte
Robinson, Mrs. Luella E.....C. L. DeLand, M.D.
121 S. Main, Olivet
Taylor, Mrs. Margene L.....J. M. Cook, M.D.
314 S. Cochran, Charlotte
VanAuker, Mrs. Mary L.....A. H. Meinke, M.D.
101 W. Plain, Eaton Rapids
Wenger, Miss Eileen Kay....Hayes-Green-Beach Hospital
Charlotte

GENESEE COUNTY

Number of Members, 61

Ames, Mrs. Thelma.....Robert D. Scott, M.D.
1215 Detroit St., Flint
Benton, Miss Eleanor.....L. E. Simoni, M.D.
3210 Dort Hwy., Flint
Birk, Mrs. Bernice.....Hurley Hospital Surgery Board
Flint
Bradley, Mrs. Carolyn E.....McLaren General Hospital
Flint
Brohn, Mrs. Ottilia C.....W. Z. Rundles, M.D.
500 Grand Traverse St., Flint
Burke, Elizabeth M.....E. N. Bernstein, M.D.
316 Kresge Bldg., Flint
Carto, Mrs. Aili M.....T. Finkelstine, M.D.
H. Varney, M.D.
1415 Broadway, Flint
Case, Mrs. Dorothy.....A. J. Miltich, M.D.
414 Dryden Bldg., Flint
Cook, Mrs. Sandra.....R. Ragan, M.D.
R. Dykewicz, M.D.
2768 Flushing Rd., Flint
Davis, Mrs. Leonore K.....S. T. Flynn, M.D.
J. C. Rawlings, M.D.
P. G. Seven, M.D.
1121 Mott Foundation Bldg., Flint
Davis, Mrs. Marilyn K.....R. Anderson, M.D.
3002 Mason St., Flint
Elliott, Mrs. Selma.....W. H. Morrison, M.D.
205 Perry Rd., Grand Blanc
English, Mrs. Dorothy.....S. Sorkin, M.D.
718 Beach St., Flint
Falk, Mrs. Gene E.....B. A. Schiff, M.D.
G. E. Moore, M.D.
323 W. Second St., Flint
Faris, Mrs. Ann.....W. Knapp, M.D.
1621 Mott Foundation Bldg., Flint
Ford, Mrs. Lucille.....J. S. Schultz, M.D.
3327 Fleming Rd., Flint
Foster, Maybelle.....R. Hague, M.D.
210 E. Court St., Flint
Greenman, Mrs. May E.....J. E. Portney, M.D.
428 Stevens St., Flint
Haario, Mrs. Barbara J.....L. G. Bateman, M.D.
1928 Lewis St., Flint
Hagerty, Miss Katherine.....G. E. Anthony, M.D.
1015 Detroit St., Flint
Hatfield, Mrs. Martha.....R. D. Ettinger, M.D.
111 Walnut St., Fenton
Heath, Mrs. Donna.....M. L. Sorking, M.D.
718 Beach St., Flint
Hesch, Vera.....P. K. Stevens, M.D.
202 Michigan Theater Bldg., Flint
Hewins, Mrs. Patricia.....R. Rapport, M.D.
715 Mott Foundation Bldg., Flint
Higgins, Mrs. Helen.....B. Farah, M.D.
J. Quinn, M.D.
5003 N. Saginaw St., Flint
Hunt, Mrs. Ardeth.....R. Ragan, M.D.
R. Dykewicz, M.D.
2768 Flushing Rd., Flint
Johnson, Mrs. Ann B.....F. Hauser, M.D.
1014 Mott Foundation Bldg., Flint
Johnson, Mrs. Violet.....Hurley Hospital
Flint
Joslyn, Mrs. V. Dwinn.....W. F. Buchanan, M.D.
J. A. Martin, M.D.
238 Caroline, Fenton
Kile, Mrs. Julia.....R. B. Michelson, M.D.
5001 N. Saginaw St., Flint
Kontyko, Marguerite.....T. Finkelstine, M.D.
H. Varney, M.D.
1415 Broadway, Flint
Lande, Mrs. Grace.....L. D. Kaufman, M.D.
4002 N. Saginaw St., Flint
Long, Mrs. Pauline.....J. A. Macksood, M.D.
2501 N. Saginaw St., Flint
Lundgren, Ethel E.....J. Lukens, M.D.
608 E. Court St., Flint
Marran, Eileen.....J. E. Wentworth, M.D.
1653 Chevrolet Ave., Flint
Martin, Katherine.....J. R. Grommons, M.D.
Durand
Mathews, Miss Patricia A.....W. Z. Rundles, Sr., M.D.
W. Z. Rundles, Jr., M.D.
500 Grand Traverse St., Flint

Moore, Miss Ruth.....M. Sorkin, M.D.
R. Willard, M.D.
G. Zeis, M.D.
718 Beach St., Flint
Neault, Mrs. Virginia.....F. H. Steinman, M.D.
734 Mott Foundation Bldg., Flint
Nelson, Mrs. Dorothy.....W. F. Buchanan, M.D.
J. A. Martin, M.D.
238 Caroline, Fenton
O'Berry, Mrs. Emily.....C. E. Hurd, M.D.
300 Roberts St., Fenton
Pappas, Mildred.....McLaren General Hospital
Flint
Pasco, Mrs. Irene.....C. E. Hurd, M.D.
300 Roberts St., Fenton
Paxton, Dorothy.....M. N. Farhat, M.D.
505 W. Court St., Flint
Sadler, Mrs. Joyce.....F. H. Steinman, M.D.
734 Mott Foundation Bldg., Flint
Sanford, Dorothy K.....R. A. McGarry, M.D.
418 Dryden Bldg., Flint
Schlattman, Agnes.....A. J. Miltich, M.D.
414 Dryden Bldg., Flint
Segroves, Miss Wanda.....J. Guyon, M.D.
302 W. Pierson Rd., Flint
Shepherd, Estella M.....W. Z. Rundles, M.D.
500 Grand Traverse St., Flint
Shroyer, Mrs. Ilah.....G. F. Rieth, M.D.
1402 Davison Rd., Flint
Skellinger, Mrs. Bette.....McLaren General Hospital
Flint
Smith, Mrs. Dorothy M.....L. G. Bateman, M.D.
1928 Lewis St., Flint
Steinman, Mrs. Mildred.....W. H. Morrison, M.D.
205 Perry Rd., Grand Blanc
Swarthout, Mrs. Juanita.....L. O. Shantz, M.D.
1239 Mott Foundation Bldg., Flint
Taylor, Mrs. Mildred.....L. D. Kaufman, M.D.
4002 N. Saginaw St., Flint
Thomson, Miss Norma Jean.....M. S. Chambers, M.D.
839 Mott Foundation Bldg., Flint
Turnage, Mrs. Frances.....T. Finkelstine, M.D.
H. Varney, M.D.
1415 Broadway, Flint
Vargo, Mrs. Jolan.....R. S. VanHarn, M.D.
5009 N. Saginaw St., Flint
Warda, Miss Anna.....S. L. Osher, M.D.
218 E. Court St., Flint

Associate Members

Coates, Ethel.....1902 N. Stevenson, Flint
Yerkey, Mrs. Donna.....137 Bush St., Grand Blanc

INGHAM COUNTY

Number of Members, 58

Ankney, Mrs. Elizabeth.....R. A. Burhans, M.D.
810 Michigan Nat'l Tower, Lansing
Bedwin, Mrs. Florence.....L. E. Wolcott, M.D.
Ronald Peets, M.D.
Okemos
Bennett, Mrs. Sally.....Irving Silverman, M.D.
1009 E. Michigan Ave., Lansing
Block, Mrs. Ruthjane.....R. W. Pomeroy, M.D.
H. W. Harris, M.D.
1624 Berkeley Dr., Lansing
Boyd, Mrs. Geneva.....R. W. Pomeroy, M.D.
609 N. Washington Ave., Lansing
Brandis, Mrs. Dorothy.....C. J. Stringer, M.D.
401 W. Greenlawn, Lansing
Brooks, Miss Audrey.....W. H. Meade, M.D.
R. G. Combs, M.D.
1023 E. Michigan Ave., Lansing
Bruner, Mrs. Jane.....W. O. Badgley, M.D.
624 N. Capitol Ave., Lansing
Crossley, Mrs. Mary Lou.....R. S. Breakey, M.D.
1211 Bank of Lansing Bldg., Lansing
Dean, Mrs. Pauline.....C. Holland, M.D.
J. F. Scallin, M.D.
121 W. Saginaw, Lansing
England, Mrs. Helen.....H. L. LeVett, M.D.
117½ W. Shiawassee, Lansing
Gilmore, Mrs. Maude F.....P. R. Stimson, M.D.
517 S. Grand, Lansing
Grams, Miss Carol.....D. M. LeDuc, M.D.
317 W. St. Joseph, Lansing
Heath, Mrs. Audrey.....W. E. Stephan, M.D.
301 Seymour St., Lansing
Heibeck, Mrs. Hazel.....R. C. Carlson, M.D.
3526 W. Saginaw, Lansing
Henick, Mrs. Carolyn.....D. Bonta Hiscoe, M.D.
326 Townsend, Lansing
Hermes, Mrs. Dawn.....E. J. Hermes, M.D.
604 W. Willow, Lansing
Hughes, Mrs. Vera.....H. L. French, M.D.
301 Seymour, Lansing
Kelsey, Mrs. Mary F.....Clayton Lewis, M.D.
903 E. Grand River, E. Lansing
Kessler, Mrs. Laura.....K. W. Toothaker, M.D.
930 N. Washington Ave., Lansing
Kratzer, Patricia.....J. Wellman, M.D.
301 Seymour Ave., Lansing
Langkamp, Mrs. Margaret.....P. C. Spencer, M.D.
320 Townsend, Lansing
Lardie, Mrs. Nora.....A. D. Calomeni, M.D.
309 Seymour, Lansing
Leavengood, Mrs. Birdie.....W. H. Plesscher. M.D.
119 E. Grand River, Lansing
Little, Mrs. Dorothy.....P. R. Stimson, M.D.
517 S. Grand Ave., Lansing
Luebke, Mrs. Colleen.....R. A. Henry, M.D.
1515 W. Mount Hope, Lansing
Markell, Mrs. Patricia.....L. Drolett, M.D.
3526 W. Saginaw, Lansing
McAttee, Mrs. Helen.....S. H. Rutledge, M.D.
110 W. Hillsdale, Lansing
McLean, Mrs. Eleanor.....F. L. Bevez, M.D.
1515 W. Mount Hope, Lansing
Miller, Mrs. Donna.....P. C. Spencer, M.D.
320 Townsend, Lansing
Miller, Mrs. Doris A.....E. W. Reynolds, M.D.
Rt. 2, Box 1-B, Williamston
Mocere, Mrs. Dona.....W. D. Hayford, M.D.
609 N. Washington Ave., Lansing
Moore, Mrs. Georgia.....S. P. Fortino, M.D.
203 Bauch Bldg., Lansing
Parsons, Mrs. Jessie.....B. J. Stone, M.D.
1031 E. Michigan Ave., Lansing
Porterfield, Miss Ruth.....P. C. Spencer, M.D.
320 Townsend, Lansing
Penner, Mrs. Clella.....H. W. Harris, M.D.
609 N. Washington Ave., Lansing
Peterson, Mrs. Nora.....J. Wellman, M.D.
301 Seymour St., Lansing
Preston, Mrs. Earlene.....E. Brubaker, M.D.
1406 Bank of Lansing Bldg., Lansing
Priest, Mrs. Pauline.....J. F. Sander, M.D.
4780 Okemos Rd., Okemos
Rathbun, Mrs. Beatrice.....E. W. Brubaker, M.D.
1406 Bank of Lansing Bldg., Lansing
Reynolds, Mrs. Margaret.....D. M. LeDuc, M.D.
317 W. St. Joseph, Lansing
Richardson, Mrs. Beth.....Sidney R. Govons, M.D.
408 N. Capitol Ave., Lansing

Rogers, Miss Helene.....St. Lawrence Hospital
Lansing
Rosekrans, Mrs. Marguerite.....E. C. Sundell, M.D.
122 W. Hillsdale, Lansing
Seyka, Mrs. Kay.....K. W. Toothaker, M.D.
930 N. Washington, Lansing
Schilling, Mrs. Mary.....A. L. Stanley, M.D.
401 W. Greenlawn, Lansing
Scibior, Miss Alice.....Ralph Carlson, M.D.
3526 W. Saginaw, Lansing
Shaffer, Mrs. Erma.....E. L. Stone, M.D.
1031 E. Michigan Ave., Lansing
Strahan, Mrs. Carol.....T. A. Lucas, M.D.
426 W. Ottowa, Lansing
Tretheway, Mrs. Elvi.....C. J. Stringer, M.D.
401 W. Greenlawn, Lansing
Thornton, Miss Violet.....L. R. McElmurry, M.D.
209 N. Walnut St., Lansing
Turk, Mrs. Bernice.....R. C. Bates, M.D.
1820 E. Michigan Ave., Lansing
Warner, Mrs. Ruth J.....B. W. Bingham, M.D.
125 W. Saginaw, Lansing
Warren, Mrs. Ruth.....H. C. Sichler, M.D.
301 Seymour Ave., Lansing
Wygant, Mrs. Catherine.....David Johnson, M.D.
401 American State Bank, Lansing
Waters, Miss Irene.....W. O. Badgley, M.D.
624 N. Capitol Ave., Lansing
Woolhouse, Mrs. Marguerite.....M. S. Shaw, M.D.
320 Townsend, Lansing

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Lucas, Mrs. Rosalind....2826 N. Cambridge Rd., Lansing

JACKSON COUNTY

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510 Dwight Bldg., Jackson
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J. P. Ludwick, M.D.
237 W. Washington Ave., Jackson
Blair, Miss Marjorie.....Don F. Kudner, M.D.
435 Wildwood Ave., Jackson
Burdick, Mrs. Thelma.....J. E. Ludwick, M.D.
J. P. Ludwick, M.D.
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Jackson
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525 Wildwood Ave., Jackson
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104 Oak St., Hudson
Guss, Mrs. Vivian.....A. O. Abraham, M.D.
Hudson
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721 17th St., Jackson
Lantis, Mrs. Pearl.....E. A. Thayer, M.D.
1104 National Bank Bldg., Jackson
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J. M. McLaughlin, M.D.
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State Prison of Southern Michigan
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612 First St., Jackson
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421 McNeal St., Jackson
Paul, Miss Anna.....H. Greenbaum, M.D.
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Fox, Miss Patricia.....R. W. Burrell, M.D.
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Gaulzetti, Mrs. Shirley.....E. G. Betz, M.D.
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D. Glaser, M.D.
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H. E. DePree, M.D.
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Lanphear, Mrs. Virginia.....Richard Lemmer, M.D.
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Lattin, Miss Charmion.....R. C. Hildreth, M.D.
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E. O. Pearson, M.D.
C. P. Chrest, M.D.
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R. M. Cashen, M.D.
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Louis, Mrs. Virginia.....Robert Warnke, M.D.
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Maentz, Mrs. Frances.....Robert Armstrong, M.D.
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224 E. Cedar, Kalamazoo
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118 W. North St., Kalamazoo
McHugh, Mrs. Betty.....W. G. Hoebeke, M.D.
W. G. Birch, M.D.
C. O. Peake, M.D.
252 E. Lovell, Kalamazoo
McMurrough, Mrs. A. Louise.....William I. Irwin, M.D.
805 Hanselman Bldg., Kalamazoo
McPherson, Mrs. Anna.....Physicians Calling Service
Pratt Bldg., Kalamazoo
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R. G. Howard, M.D.
R. E. DeLong, M.D.
Borgess Hospital, Kalamazoo
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R. R. Dew, M.D.
252 E. Lowell, Kalamazoo
Mori, Mrs. Maribeth.....Robert J. Armstrong, M.D.
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Niewoonder, Miss Grace.....Kalamazoo State Hospital
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Nordahl, Mrs. Norrene.....Robert J. Armstrong, M.D.
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R. E. Boyd, M.D.
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C. A. Gardner, M.D.
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516 Whites Rd., Kalamazoo
Puschell, Mrs. Lenora.....L. R. Banner, M.D.
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507 S. Burdick, Kalamazoo
Rabbers, Mrs. Frances.....J. C. Brenneman, M.D.
Galesburg
Rezin, Miss Karen.....Margaret H. Zolen, M.D.
628 S. Park, Kalamazoo
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516 Whites Rd., Kalamazoo
Rolph, Mrs. Harriet.....E. M. Williamson, M.D.
W. R. King, M.D.
M. L. Barry, M.D.
252 E. Lovell, Kalamazoo
Root, Miss Hazel.....Mathew Peelen, M.D.
K. M. VanderVelde, M.D.
252 E. Lovell, Kalamazoo
Russell, Mrs. Nancy.....M. M. Conrad, M.D.
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252 E. Lovell, Kalamazoo
Schanz, Mrs. Mary.....E. M. Williamson, M.D.
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252 E. Lovell, Kalamazoo
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M. A. Finton, M.D.
252 E. Lovell, Kalamazoo
Stevens, Miss Sally.....R. M. Nicholson, M.D.
316 Henrietta, Kalamazoo
Stewart, Miss Carol.....M. M. Conrad, M.D.
C. M. Hanson, M.D.
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Storm, Miss Marilyn.....J. C. Brenneman, M.D.
Galesburg
Strunk, Miss Eleanor.....Mathew Peelen, M.D.
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M. A. Finton, M.D.
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VanLeuwen, Mrs. Virginia.....R. J. Hubbell, M.D.
R. N. Kilgore, M.D.
R. E. Boyd, M.D.
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VanSweden, Miss Donna.....Paul Schrier, M.D.
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White, Miss Nellie.....Robert Armstrong, M.D.
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Williams, Mrs. Barbara.....Kalamazoo Nursing Council
Pratt Bldg., Kalamazoo
Winship, Mrs. Charlotte.....James Malone, M.D.
420 John St., Kalamazoo
Wolfe, Mrs. Betty.....Kalamazoo State Hospital
Box A, Kalamazoo
Wykkell, Mrs. Emily.....William Scott, M.D.
252 E. Lovell, Kalamazoo

Associate Members

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Kalamazoo
Vanderklok, Miss Phyllis.....Borgess Hospital
Kalamazoo

KENT COUNTY

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Barney, Miss Mary Alixe.....A. B. Smith, M.D.
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S. M. Oates, M.D.
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1077 Leonard N.E., Grand Rapids
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Bos, Miss Marilyn.....William Fuller, M.D.
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Grand Rapids
DeGroat, Miss Thelma.....Sunshine Hospital
700 Fuller N.E., Grand Rapids
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N. L. Avery, M.D.
A. K. Hamp, M.D.
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Jankowski, Miss Esther.....F. M. Jameson, M.D.
D. S. McIntyre, M.D.
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Johnson, Miss Esther.....C. E. Farber, M.D.
F. S. Gillett, M.D.
E. Fitzgerald, M.D.
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Juzapaitis, Mrs. Rose..Grand Rapids Health Department
303 Ionia N.W., Grand Rapids
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A. Hoffs, M.D.
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Ksizkiewicz, Miss Betty.....E. C. Thompson, M.D.
A. Hoffs, M.D.
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Lugthart. Mrs. Irma Marie.....David B. Davis, M.D.
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Miller, Mrs. Caroline.....H. Lieffers, M.D.
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Nienhuis, Miss Gertrude.....Grand Rapids Health Dept.
303 Ionia Ave. N.W., Grand Rapids
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Scheirn, Miss Marian.....W. Steffenson, M.D.
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320 Metz Building, Grand Rapids

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R. J. Brink, M.D.
54 College, S.E., Grand Rapids

Skipper, Miss Florence.....E. C. Thompson, M.D.
A. J. Hoffs, M.D.
522 Medical Arts Bldg., Grand Rapids

Skoglund, Mrs. Mae.....G. DeMaagd, M.D.
143 Courtland St., Rockford

Streeter, Mrs. Isabel.....G. DeMaagd, M.D.
143 Courtland St., Rockford

Thompson, Miss Elaine.....J. P. Marsh, M.D.
124 E. Fulton, Grand Rapids

Usher, Mrs. Lucille.....Raymond H. Murray, M.D.
502 Medical Arts Bldg., Grand Rapids

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Grand Rapids

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Grand Rapids

Oppenhuizen, Mrs. Shirley.....2270 Nelson, S.E.
Grand Rapids

Wood, Miss Nola.....322 Calkins, S.E.
Grand Rapids

MUSKEGON COUNTY

Number of Members, 37

Anthony, Mrs. Josephine.....I. J. Kleaveland, M.D.
1633 Peck St., Muskegon

Barr, Mrs. Barbara.....I. J. Kleaveland, M.D.
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Beckman, Miss Carol.....A. F. Dasler, M.D.
1507 Peck St., Muskegon

Bell, Mrs. Charity.....Wm. C. Cooper, M.D.
2404 A. Jarman, Muskegon

Bourdo, Miss Jean.....R. J. Flex, M.D.
1715 Peck St., Muskegon

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A. H. Joistad, M.D.
878 Second St., Muskegon

Carey, Miss Margaret.....T. J. Kane, M.D.
179 Strong Ave., Muskegon

Collier, Mrs. Catherine.....W. H. Tyler, M.D.
1435 Peck St., Muskegon

Cumming, Mrs. Lois.....W. H. Tyler, M.D.
1435 Peck St., Muskegon

Daigle, Miss Mary.....J. K. Hill, M.D.
L. C. Paterson, M.D.
1095 Third St., Muskegon

Drewes, Mrs. Linda.....L. LeFevre, M.D.
450 W. Western Ave., Muskegon

Dykema, Miss Marva.....Hackley Mental Health Clinic
100 E. Larch Ave., Muskegon

Flickema, Miss Beverly.....R. V. August, M.D.
72 E. Broadway, Muskegon

Gauthier, Miss Patricia.....R. Lowry, M.D.
2336 Peck St., Muskegon

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Whitehall

Goudberg, Mrs. Hazel.....D. H. Giese, M.D.
210 Lyman Bldg., Muskegon

Hartman, Mrs. Marilyn.....R. Lowry, M.D.
2336 Peck St., Muskegon

Herbert, Miss Mae.....N. W. Scholle, M.D.
2500 Peck St., Muskegon

Hislop, Miss Donna.....L. E. Holly, M.D.
A. H. Joistad, M.D.
878 Second St., Muskegon

Horan, Miss Janet.....P. S. Bradshaw, M.D.
1014 Jefferson, Muskegon

Irwin, Mrs. Julia.....J. K. Hill, M.D.
L. C. Paterson, M.D.
1095 Third St., Muskegon

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Kuehn, Miss Nan.....D. H. Giese, M.D.
210 Lyman Bldg., Muskegon

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1017 Sanford St., Muskegon

Kerr, Mrs. Barbara.....H. D. Dykhuizen, M.D.
710 Hackley Bank Bldg., Muskegon

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2416 Peck St., Muskegon

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1377 Peck St., Muskegon

Neiser, Mrs. Kathey.....F. J. Stubbart, M.D.
2416 Peck St., Muskegon

Nielson, Mrs. Marie.....P. S. Bradshaw, M.D.
1014 Jefferson St., Muskegon

Olson, Miss Sarah.....F. Diskin, M.D.
309 Jackson Ave., Muskegon

Pearson, Miss Margaret.....Hackley Hospital
Muskegon

Schaude, Mrs. Ruth.....Relief
2213 Maffett St., Muskegon

Smith, Miss Marilyn.....L. E. Holly, M.D.
A. H. Joistad, M.D.
878 Second St., Muskegon

Stirling, Mrs. Freida.....F. L. Pettinga, M.D.
1603 Peck St., Muskegon

Talmadge, Mrs. Marie.....D. E. Maples, M.D.
402 Center, North Muskegon

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H. L. Miller, M.D.
617 Washington Sq. Bldg., Royal Oak

Boone, Mrs. Helen.....Lewis Cohen, M.D.
1110 Pontiac State Bank, Pontiac

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330 Washington Sq. Bldg., Royal Oak

Carpenter, Mrs. Jane.....L. N. Merrill, M.D.
330 Washington Sq. Bldg., Royal Oak

Cary, Mrs. Jeanette.....R. Fox, M.D.
W. M. Cutler, M.D.
610 N. Woodward, Birmingham

Crilley, Mrs. Bertha.....H. C. Crissman, M.D.
22750 Woodward, Ferndale

DeFlorio, Shirley.....C. D. Conrad, M.D.
3027 N. Woodward, Royal Oak

Dworek, Elizabeth.....H. E. Lichtwardt, M.D.
606 Woodward, Birmingham
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1715 Crooks, Royal Oak
Flourre, Mrs. Irene.....T. O. Grekin, M.D.
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F. M. Sheridan, M.D.
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Gaskell, Orlou.....G. P. Raynale, M.D.
R. R. Wessels, M.D.
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15819 Wyoming, Detroit
Grant, Mrs. Gwen.....D. L. Wake, M.D.
F. M. Sheridan, M.D.
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W. J. Zimmerman, M.D.
P. E. Schmidt, M.D.
258 Washington Sq. Bldg., Royal Oak
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640 N. Woodward, Birmingham
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3027 N. Woodward, Royal Oak
Kempf, Eugene.....A. A. Ignatius, M.D
1915 E. Nine Mile Rd., Ferndale
Kienle, Miss Gertrude.....A. A. Darmstaetter, Jr., M.D.
227 Briggs Bldg., Birmingham
Kubiac, Mrs. Beatrice.....H. C. Crissman, M.D.
22750 Woodward, Ferndale
Madsen, Aasta.....H. G. Aulie, M.D.
420 Washington Sq. Bldg., Royal Oak
Mancour, Mrs. Edith.....B. D. Bauer, M.D.
E. W. Bauer, M.D.
Wm. Bauer, M.D.
22643 Stephenson, Hazel Park
Martin, Mrs. Eliza.....P. E. Sutton, M.D.
W. H. Koehler, M.D.
G. E. Smith, M.D.
J. Ketchum, M.D.
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302 Wabeek Bldg., Birmingham
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1117 S. Washington, Royal Oak
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Polzin, Mrs. Arlene.....J. L. Nosanchuk, M.D.
1216 Pontiac State Bank Bldg., Pontiac
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617 Washington Sq. Bldg., Royal Oak
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324 Washington Sq. Bldg., Royal Oak
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A. K. Stolpman, M.D.
640 N. Woodward, Ferndale
Wooster, Mrs. Avis.....R. Ferris, M.D.
55 W. Maple, Birmingham
Worthley, Mrs. Ruth.....J. R. Flick, M.D.
120 W. Second, Royal Oak

OTTAWA COUNTY

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Rt. 3, Zeeland
Bolthouse, Miss Julia.....F. W. DeYoung, M.D.
205 Savidge, Spring Lake
Branyan, Mrs. Vivian.....K. N. Wells, M.D.
119 W. Savidge, Spring Lake
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Grand Haven
Brouwer, Mrs. Ruth.....J. B. Kearney, M.D.
121 W. 24th St., Holland
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Grand Haven
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J. H. Yff, M.D.
148 E. Cherry St., Zeeland
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214 Washington, Grand Haven
DeWent, Mrs. Eileen.....O. VanderVelde, M.D.
33 West 8th St., Holland
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222½ Washington St., Grand Haven
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M. S. Kitchel, M.D.
Peter MacArthur, M.D.
414 Franklin, Grand Haven
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J. H. Yff, M.D.
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Grand Haven
Miller, Mrs. Dorothy.....W. Rypkema, M.D.
228½ Washington St., Grand Haven
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Grand Haven
Secord, Mrs. Jean.....Grand Haven Municipal Hospital
Grand Haven
Wiegerink, Miss Mary..Grand Haven Municipal Hospital
Grand Haven

SAGINAW COUNTY
Number of Members, 87

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J. P. Markey, M.D.
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633 S. Washington Ave., Saginaw

Bahnemann, Miss Marjorie.....Harold Mayne, M.D.
William McEwen, M.D.
305 Graebner Bldg., Saginaw

Baxter, Miss Jane.....R. M. Heavenrich, M.D.
W. G. Mason, M.D.
R. M. Jarvi, M.D.
1107 Gratiot St., Saginaw

Bindon, Mrs. Ruth.....William Kerr, M.D.
300 S. Michigan Ave., Saginaw

Bluem, Miss Donna.....J. E. Manning, M.D.
J. H. Gardner, M.D.
815 N. Michigan Ave., Saginaw

Brin, Mrs. Beth.....J. E. Manning, M.D.
J. H. Gardner, M.D.
815 N. Michigan Ave., Saginaw

Broadwater, Mrs. Gertrude.....Oliver Lohr, M.D.
537 Millard St., Saginaw

Brubaker, Mrs. Nan.....R. V. Bucklin, M.D.
1447 N. Harrison St., Saginaw

Buchholz, Mrs. Elaine.....E. C. Galsterer, M.D.
507 First Savings & Loan Bldg., Saginaw

Burns, Mrs. Dorothy.....John Goodsell, M.D.
Donald Durman, M.D.
408 S. Jefferson Ave., Saginaw

Burns, Mrs. Laura.....St. Mary's Hospital
830 S. Jefferson Ave., Saginaw

Colpean, Mrs. Patricia.....Robert App, M.D.
520 W. Genesee Ave., Saginaw

Cory, Miss Jacqueline.....Arno Weiss, M.D.
3521 State St., Saginaw

Cummins, Miss Hallie.....W. W. Dickerson, M.D.
Caro State Hospital, Caro

Davenport, Mrs. Agnes.....Peter Chisena, M.D.
Bridgeport

Dawson, Mrs. Lois.....Thomas Mahaney, M.D.
3521 State St., Saginaw

Deno, Miss Patricia.....Lloyd Harvie, M.D.
405 Wiechmann Bldg., Saginaw

Dietzel, Mrs. Alice.....Oscar Nelson, M.D.
120 N. Michigan Ave., Saginaw

Dine, Mrs. Georgeanna.....F. L. Markey, M.D.
J. P. Markey, M.D.
808 N. Michigan Ave., Saginaw

Dubay, Mrs. Margaret.....C. A. Skowronski, M.D.
1401 E. Genesee Ave., Saginaw

Dvorsek, Mrs. Violet.....Roy Gerard, M.D.
1500 Gratiot St., Saginaw

Eichstaedt, Mrs. Barbara.....Richard Goldner, M.D.
1024 N. Michigan Ave., Saginaw

Erickson, Miss Marie.....W. T. Hyslop, M.D.
1610 Gratiot St., Saginaw

Fischer, Miss Yvonne.....V. A. Hospital
1500 Weiss St., Saginaw

Fogus, Mrs. Eleanor.....R. M. Heavenrich, M.D.
R. M. Jarvi, M.D.
W. G. Mason, M.D.
1107 Gratiot St., Saginaw

Fosters, Mrs. Mildred.....Bert Bullington, M.D.
2000 Court St., Saginaw

Frisch, Miss Elizabeth.....Robert Bucklin, M.D.
1447 N. Harrison St., Saginaw

Fulton, Miss Eleanor.....Oliver Lohr, M.D.
537 Millard St., Saginaw

Gardyko, Mrs. Loretta.....Jules Lassignal, M.D.
2125 Bay St., Saginaw

Garlick, Miss Carol.....Homer Slade, M.D.
520 W. Genesee Ave., Saginaw

Geiger, Mrs. Jean.....Saginaw County Hospital
Saginaw

Golson, Mrs. Bernadine.....A. P. Murphy, M.D.
303 N. Michigan Ave., Saginaw

Hamil, Mrs. Lorayne.....Donald Durman, M.D.
John Goodsell, M.D.
408 S. Jefferson, Saginaw

Hawkin, Miss Helen.....E. G. Hester, M.D.
2031 N. Michigan Ave., Saginaw

Hawkins, Miss June.....St. Mary's Hospital
803 S. Jefferson Ave., Saginaw

Heine, Miss Vera.....A. E. Gamon, M.D.
2004 Court St., Saginaw

Hesse, Mrs. Elaine.....Clarence Toshach, M.D.
331 S. Jefferson, Saginaw

Hohiesel, Mrs. Elsie.....Robert Kolesar, M.D.
1005 Gratiot St., Saginaw

Holland, Mrs. Delores.....John James, M.D.
1021 W. Genesee Ave., Saginaw

Hutchinson, Miss Helen.....Saginaw County Hospital
Saginaw

Jensen, Miss Doris.....Harold Mayne, M.D.
William McEwen, M.D.
305 Graebner Bldg., Saginaw

Jones, Mrs. Joan.....Robert Kolesar, M.D.
1005 Gratiot St., Saginaw

LaBarge, Miss Marge.....V. A. Hospital
1500 Weiss St., Saginaw

LaLonde, Mrs. Hilda.....Oscar Nelson, M.D.
120 N. Michigan Ave., Saginaw

List, Mrs. Harriet.....Harold Ballmer, M.D.
2715 Ashman St., Midland

Loth, Mrs. Anita.....H. A. Phillips, M.D.
420 First Savings & Loan Bldg., Saginaw

Luplow, Mrs. Lorine.....Donald Sargent, M.D.
1703 N. Michigan Ave., Saginaw

Miller, Miss Madeline.....Harold Mayne, M.D.
120 N. Michigan Ave., Saginaw

Mills, Miss Mildred.....Edwin Galsterer, M.D.
124 S. Jefferson Ave., Saginaw

Nighswander, Miss Margaret....R. M. Heavenrich, M.D.
R. M. Jarvi, M.D.
W. G. Mason, M.D.
1107 Gratiot, Saginaw

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1447 N. Harrison St., Saginaw

Parent, Mrs. Helen M.....St. Mary's Hospital
830 S. Jefferson, Saginaw

Pavelich, Miss Loretta.....Edward Stahly, M.D.
Saginaw County Hospital, Saginaw

Plettenberg, Mrs. Mary.....Gerald Ackermann, M.D.
124 S. Jefferson Ave., Saginaw

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1803 N. Michigan Ave., Saginaw

Rogers, Mrs. Mary.....F. L. Markey, M.D.
J. P. Markey, M.D.
R. L. Vitu, M.D.
808 N. Michigan Ave., Saginaw

Roundhouse, Mrs. Ruth.....R. M. Heavenrich, M.D.
R. M. Jarvi, M.D.
W. G. Mason, M.D.
1107 Gratiot St., Saginaw

Ruggles, Miss Charlotte.....Oliver Lohr, M.D.
537 Millard St., Saginaw

Savage, Miss Janet.....R. M. Heavenrich, M.D.
R. M. Jarvi, M.D.
W. G. Mason, M.D.
1107 Gratiot St., Saginaw

Scheanwald, Miss Marjorie.....Donald Sargent, M.D.
1703 N. Michigan Ave., Saginaw

Seabrook, Mrs. Muril.....Edward Kickham, M.D.
309 S. Jefferson Ave., Saginaw

Smith, Miss Yvonne.....E. G. Hester, M.D.
2031 N. Michigan Ave., Saginaw
Stein, Miss Virginia.....Laurence Bruggers, M.D.
1703 N. Michigan Ave., Saginaw
Stone, Mrs. Marion.....Robert Bucklin, M.D.
1447 N. Harrison St., Saginaw
Strehl, Mrs. Rose Marie.....Peter Chisena, M.D.
Bridgeport
Surian, Miss Alexander.....C. A. Skowronski, M.D.
1401 E. Genesee Ave., Saginaw
Tedhams, Mrs. Phillis.....Thomas Kretchmer, M.D.
304 Wiechmann Bldg., Saginaw
Thompson, Miss Joan.....A. W. Farley, M.D.
1803 N. Michigan Ave., Saginaw
Thompson, Miss Margaret.....Stuart Yntema, M.D.
331 S. Jefferson Ave., Saginaw
Toth, Miss Dorothy.....Carl Olson, M.D.
1447 N. Harrison St., Saginaw
Wahl, Miss Harriet.....Frank Busch, M.D.
1731 N. Michigan Ave., Saginaw
Ward, Mrs. Betty.....C. R. Murray, M.D.
(Deceased 2-26-58) 1827 N. Michigan Ave., Saginaw
Weir, Mrs. Nona.....Edwin Galsterer, M.D.
507 First Savings & Loan Bldg., Saginaw
Willert, Mrs. Dorothy.....M. J. Murray, M.D.
603 S. Jefferson Ave., Saginaw
Witherspoon, Miss Jean.....Arno Weiss, M.D.
3521 State St., Saginaw
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Caro
Worrall, Mrs. Inez.....Saginaw General Hospital
1447 N. Harrison, Saginaw

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Saginaw
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Saginaw
Mutscheller, Miss Meta.....1338 Mott
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Porath, Mrs. Beverly.....7435 McCliggott Rd.
Saginaw
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Saginaw
Swift, Mrs. Marian.....1539 Osborn
Saginaw
Walther, Mrs. Josephine.....1921 Stark
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ST. CLAIR COUNTY

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940 Military St., Port Huron
Ange, Mrs. Marjorie.....Charles O. Townley, M.D.
Sidney C. Walker, M.D.
1209 10th, Port Huron
Bedford, Mrs. Agnes.....Robert P. Clifford, M.D.
506 S. Riverside, St. Clair
Burns, Miss Barbara.....Charles O. Townley, M.D.
Sidney C. Walker, M.D.
1209 10th, Port Huron
Campbell, Mrs. Deanna.....James F. Gerrits, M.D.
202 Orchard, St. Clair
Cochrill, Mrs. Mildred.....E. C. Sites, M.D.
H. J. Hazeldine, M.D.
John J. Coury, Jr., M.D.
Joseph A. Barss, M.D.
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Creed, Mrs. Betty.....E. C. Sites, M.D.
H. J. Hazeldine, M.D.
John J. Coury, Jr., M.D.
Joseph A. Barss, M.D.
1209 10th, Port Huron
Decker, Miss Carol.....C. A. Ludwig, M.D.
F. E. Ludwig, M.D.
916 7th St., Port Huron
Fawcett, Mrs. Elinor.....Arthur H. Ulmer, M.D.
1209 10th, Port Huron
Fisher, Miss Katherine.....Robert P. Clifford, M.D.
506 S. Riverside, St. Clair
Fogal, Mrs. Donna.....William T. Davison, M.D.
1108 Military St., Port Huron
Force, Miss Eva.....Port Huron Hospital
Port Huron
Gorte, Miss Martha.....W. A. Schaefer, M.D.
303 Michigan Nat'l Bank, Port Huron
Graziadei, Mrs. Kathleen.....Charles O. Townley, M.D.
Sidney C. Walker, M.D.
1209 10th, Port Huron
Hall, Mrs. Julia.....C. A. Ludwig, M.D.
F. E. Ludwig, M.D.
916 7th St., Port Huron
Harris, Mrs. Rosemarie.....Port Huron Hospital
Port Huron
King, Miss Grace E.....Frank K. Beck, M.D.
901 Lapeer, Port Huron
Lester, Mrs. Marjorie.....C. A. Ludwig, M.D.
F. E. Ludwig, M.D.
916 7th St., Port Huron
Loll, Miss Carolyn.....E. W. Meredith, M.D.
T. H. Bottomley, M.D.
1102 6th St., Port Huron
Marsh, Miss Kay D.....Port Huron Hospital
Port Huron
Miller, Mrs. Pauline.....William D. Cleland, M.D.
Anthony C. Gholz, M.D.
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O'Hara, Mrs. Nona.....E. C. Sites, M.D.
H. J. Hazeldine, M.D.
John J. Coury, Jr., M.D.
Joseph A. Barss, M.D.
1209 10th St., Port Huron
Patterson, Mrs. Una.....D. W. Patterson, M.D.
622 Huron Ave., Port Huron
Payne, Miss Twyla.....Donald A. Koch, M.D.
310 E. Water, Port Huron
Reed, Mrs. Phyllis.....Mercy Hospital
Port Huron
Revenko, Miss Olga.....John R. Gilmore, M.D.
317 Michigan Nat'l Bank, Port Huron
Roberts, Mrs. Mildred.....Walter S. Novak, M.D.
G. F. Tomsu, M.D.
James H. Tisdel, M.D.
310 Water, Port Huron
Sanderson, Mrs. Madeline.....Mercy Hospital
Port Huron
Shay, Mrs. Carol.....E. C. Sites, M.D.
H. J. Hazeldine, M.D.
John J. Coury, M.D.
Joseph A. Barss, M.D.
1209 10th St., Port Huron
Suerwier, Miss Donna.....John D. Cantwell, Jr., M.D.
612 Peoples Bank Bldg., Port Huron
Tepper, Mrs. Ina.....Joseph L. Sanderson, M.D.
515 Pine, Port Huron
Vincent, Miss Beverly.....E. W. Meredith, M.D.
T. H. Bottomley, M.D.
1102 6th, Port Huron

Watson, Mrs. Mary Erla.....George VanRhee, M.D.
323 Peoples Bank Bldg., Port Huron

Willey, Mrs. Betty Lou.....William T. Davison, M.D.
1108 Military, Port Huron

Wood, Miss Catherine.....Port Huron Hospital
Port Huron

Associate Member

Patterson, Mrs. Charlotte.....1315 Palmer Ct.
Port Huron

UPPER PENINSULA
Number of Members, 16

Bertocchi, Miss Mary Louise....D. P. Hornbogen, M.D.
101 S. Front St., Marquette

Chartier, Miss Marlene Ann.....D. T. Conley, M.D.
First Natl. Bank Bldg., Marquette

Hultgren, Mrs. Virginia M.....M. Cooperstock, M.D.
Medical Bldg., Marquette

Johnson, Beverly.....W. C. Lambert, M.D.
Medical Bldg., Marquette

Kimber, Mrs. Merle D.....W. C. Lambert, M.D.
Medical Bldg., Marquette

Kovel, Miss Marlene Jean.....K. C. Wright, M.D.
Medical Bldg., Marquette

Largenesse, Miss Rita M.....E. R. Elzinga, M.D.
315 N. Front St., Marquette

Melin, Shirley.....Donald R. Smith, M.D.
100 W. A. St., Iron Mountain

Nault, Emily.....W. H. Alexander, M.D.
Commercial Nat'l Bank, Iron Mountain

Schneider, Mrs. Fern L.....T. B. Bolitho, M.D.
D. W. Erickson, M.D.
Medical Bldg., Marquette

Stephens, Mary.....James H. Fyvie, M.D.
202 S. Cedar St., Manistique

Swanson, Alice.....W. R. Gladstone, M.D.
804 Main St., Norway

Tervo, Mrs. Tuni Mary.....W. C. Lambert, M.D.
Medical Bldg., Marquette

Thompson, Dagmar.....James H. Fyvie, M.D.
202 S. Cedar St., Manistique

Tousignant, Miss Marie E.....J. W. Lyons, M.D.
Medical Bldg., Marquette

Tuominen, Mrs. Florence.....M. Cooperstock, M.D.
Medical Bldg., Marquette

VAN BUREN COUNTY
Number of Members, 15

Brown, Mrs. Kathryn.....Paw Paw Medical Group
305 Oak St., Paw Paw

Canham, Mrs. Jessica.....Arthur E. Parks, M.D.
148 N. Main St., Lawton

Cornish, Mrs. Lucille.....William R. Young, M.D.
109 Union St., Lawton

Dannison, Mrs. Cecile.....Bert Dephuis, M.D
511 Huron St., South Haven

Huey, Mrs. Grace.....Charles TenHouten, M.D.
215 N. Kalamazoo St., Paw Paw

Jensen, Mrs. Eleanor.....M. W. Buckborough, M.D.
511 Huron St., South Haven

Jewett, Mrs. Maxine.....Paw Paw Medical Group
305 Oak St., Paw Paw

King, Mrs. Barbara.....Paw Paw Medical Group
305 Oak St., Paw Paw

Lamoreaux, Mrs. Meta.....F. J. Loomis, M.D.
112 N. Niles St., Paw Paw

Lennig, Mrs. Freida.....J. Itzen, M.D.
J. Kleber, M.D.
311 Center St., South Haven

Magyar, Mrs. Betty.....Arthur H. Steele, M.D.
221 Oak St., Paw Paw

Novy, Mrs. Ethel.....J. Itzen, M.D.
J. Kleber, M.D.
311 Center St., South Haven

Schroyer, Miss Lois.....J. E. Cooper, M.D.
A. Gano, M.D.
417 Monroe St., Bangor

Walker, Mrs. Bess.....Arthur E. Parks, M.D.
148 N. Main St., Lawton

Warmbold, Mrs. Alberta.....Charles TenHouten, M.D.
215 N. Kalamazoo St., Paw Paw

Michigan State Medical Society

Constitution

ARTICLE I—NAME

Section 1. The name of this organization shall be The Michigan State Medical Society.

ARTICLE II—COMPONENT COUNTY SOCIETIES

Section 1.—Component County Societies.

Component County Societies shall consist of those County Medical Societies which hold charters from this State Medical Society.

Sec. 2.—Geographical Scope.

Only one component County Society shall be chartered in any one county of the State; provided, however, when in the judgment of the House of Delegates it is deemed to be to the best interests of this Society, a charter may be granted to a component County Society comprising two or more counties.

ARTICLE III—PURPOSES

Section 1. To bring into one organization the Doctors of Medicine of this State of Michigan, and through it and other similar societies of other states to form and maintain the American Medical Association.

Sec. 2. To maintain a program of educational service to the public on matters of health and hygiene.

Sec. 3. To encourage among members of the medical profession the interchange of views on all phases of professional advancement and thus better to equip each member of the profession to serve society and promote the public health.

Sec. 4. To maintain a program of scientific education for the members of The Society keyed to the constantly developing discoveries in the field of medicine; and to foster, encourage and co-ordinate postgraduate facilities for the medical profession as a whole.

Sec. 5. To disseminate advances in medical research among the profession generally, by the issuance of scientific publications.

Sec. 6. To maintain and to advance the standards of medical practice in this State with respect to the highest concepts of ethics.

Sec. 7. To acquire and hold such real and personal property as may be necessary for the full and proper execution of the corporate purposes as detailed herein.

Sec. 8. To carry on such organization, functions and activities as are deemed necessary to accomplish effectively the above purposes; provided, however, that the Society shall engage in no activities that cannot be construed as relevant, incidental or necessary to its charitable, educational and scientific purposes.

ARTICLE IV—DIVISIONS

Section 1. This Society as a State unit of the American Medical Association, and as the State expression of the County Societies of Michigan, shall have three major divisions.

1. The Society as a whole, as when it meets in Annual Session.
2. The Scientific Assembly with its subordinate or related bodies.
3. The House of Delegates with its subordinate or related bodies.

ARTICLE V—THE SOCIETY AS A WHOLE

Section 1. The Society as a whole shall hold an Annual Session at such time and place and of such duration as the House of Delegates may determine. This power may be delegated to The Council or to the Executive Committee of The Council by the House of Delegates.

ARTICLE VI—SCIENTIFIC ASSEMBLY

Section 1. The Scientific Assembly of this Society is the convocation of its members for the presentation and discussion of subjects pertaining to the science and art of medicine, its allied specialties and the problems of public health conservation.

ARTICLE VII—HOUSE OF DELEGATES

Section 1. The House of Delegates shall be the legislative body of the Michigan State Medical Society and shall consist of Delegates elected by component County Societies and Delegates-at-Large, as prescribed by the By-Laws.

ARTICLE VIII—MEMBERS

Section 1. This Society shall consist of active members, honorary members, associate members, retired members, life members and military members, elected in accordance with the By-Laws.

ARTICLE IX—OFFICERS AND ELECTED REPRESENTATIVES

Section 1. The officers of this Society shall be a President; a President-Elect; a Treasurer; a Secretary; a Speaker and a Vice Speaker of The House of Delegates; and Councilors.

Sec. 2. The elected representatives of this Society shall be the Delegates and the Alternate Delegates to the House of Delegates of the American Medical Association.

ARTICLE X—THE COUNCIL

Section 1. The Council shall be the Executive Body of the Society. It shall consist of one Councilor from each Councilor District, the President, President-Elect, immediate Past President, Speaker and Vice Speaker of the House of Delegates with the Secretary and the Treasurer, the last two being elected by the foregoing. It shall have the custody and entire control of all funds and property of the Society and shall act for the Society as a Whole and for The House of Delegates between sessions.

Sec. 2. The Executive Committee of The Council shall consist of its Chairman, Vice Chairman, Chairman of the Finance Committee, Chairman of the County Societies Committee, Chairman of the Publication Committee, President, President-Elect, Secretary, Treasurer, Speaker and Vice Speaker of the House of Delegates. It shall act for the Society as a whole and for the House of Delegates between sessions of The Council, except that a policy established by the House of Delegates or by The Council shall not be changed.

ARTICLE XI—FUNDS AND EXPENSES

Section 1. Funds for meeting the expenses of the Society shall be raised by annual dues, special assessments and voluntary contributions.

Sec. 2. Annual membership dues and assessments shall be fixed by the House of Delegates.

ARTICLE XII—AMENDMENTS

Section 1. The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates seated at any Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been published at least once during the year in THE JOURNAL of the Society, or sent officially to each component County Society at least two months before the meeting at which final action is to be taken.

Sec. 2. This Constitution or any amendment thereto shall become effective immediately upon its adoption.

By-Laws

CHAPTER 1—COMPONENT COUNTY SOCIETIES

Section 1. The charter of each component County Society shall require that each of the provisions of the Constitution and By-Laws of the Michigan State Medical Society, together with each amendment to either thereof, hereafter adopted, in so far as the same is applicable, shall be an integral part of the Constitution and By-Laws of the component County Society to which a charter is issued and shall in no way be inconsistent with the Constitution and By-Laws of the Michigan State Medical Society. Each charter shall be authorized by the House of Delegates and signed by the President and the Secretary of this Michigan State Medical Society.

Sec. 2. The House of Delegates is empowered to revoke the charter of any component County Society whenever it finds that such Society has materially breached any of the provisions of the Constitution or By-Laws of this State Society or has failed to function within the expressed spirit and purpose of this State Society to such an extent that revocation of charter is compatible with the best interests of this State Society. Petition for the revocation of charter of any component County Society may be filed with The Council by a Councilor of the district within which each Society is located, or by any three members of The Council of this State Society or by the President of this State Society. Such petition shall be in writing and set forth with reasonable particularity the matters complained of and upon which the petition is founded. A copy of such petition together with written notice of the time and place of hearing on the petition shall be served on the affected component County Society by registered mail, return receipt requested, not less than 60 days before the date of such hearing. The affected component County Society may, within 30 days after service upon it of copy of the petition, file with The Council by registered mail, return receipt requested, a written answer thereto. The Council shall afford the affected component County Society a fair hearing of the matters complained of and a suitable opportunity to present its defense. The component County Society may be represented by legal counsel. Written arguments may be filed on behalf of the affected component County Society and by the petitioner. Stenographic notes shall be made of the entire proceedings on such hearing and a complete record shall be prepared, which record shall consist of the petition, answer, testimony, exhibits, written arguments and other pertinent matter. The Council shall make its decision based on the records, setting forth in writing its finding of facts, conclusions and reasons therefor. If two-thirds of the members of The Council do not concur in the conclusion that the charter of the affected component County Society should be revoked, the petition shall be deemed dismissed and the proceedings ended. If two-thirds of the members of The Council concur in the conclusion that the charter of the affected component County Society should be revoked, the Chairman of The Council shall transmit to the House of Delegates a report, consisting of the decision of The Council with all records annexed, and shall serve a copy thereof on the affected component County Society. The House of Delegates shall at the next regular or special session thereof following the transmittal of such report, consider and take such action on the report as it may deem proper. In case the House of Delegates desires further proofs in relation to the issues involved, it may remand the matter to The Council for further hearing and report. The action of the House of Delegates on the report of The Council shall be the final decision with reference to the revocation of the charter of a component County Society. Provided, that the component County Society, if it feels aggrieved by the decision of the House of Delegates, may, within six months, appeal to the Judicial Council of the American Medical Association, whose opinion shall be final.

CHAPTER 2—REGULATION OF MEMBERSHIP

Section 1. Admission to membership of any component county society is not a matter of right, but one of privilege, to be accorded or withheld in the sole discretion of such society. Every component county society may determine the manner of electing its members and shall be the sole judge of the qualifications of applicants for membership thereof.

Sec. 2. A Doctor of Medicine whose principal location of practice is near a county line may hold his membership in that component County Society most convenient for him to attend, on permission of The Council of the Michigan State Medical Society.

Sec. 3. Each component County Society shall have general direction of the affairs of the profession in the county, and its influence shall be exerted constantly for bettering the scientific, the moral and material conditions of every Doctor of Medicine in the county; systematic effort shall be made by each member and by the component County Society as a whole to increase the membership until it embraces every eligible Doctor of Medicine in the county.

Sec. 4. The Secretary of each component County Society shall keep a roster of its members and if practicable a list of non-affiliated Doctors of Medicine in the county, and other Doctors of Medicine, such as commissioned officers of the Navy, Army, and Public Health Service, in which shall be shown the full name, the address, the college and date of graduation, the date of license to practice in this State, and such other information as may be deemed necessary.

Sec. 5. Each member of a component County Society, who is in good standing, shall be privileged to attend each meeting and take part in all the proceedings and shall be eligible to any office within the gift of the Society except as otherwise provided.

CHAPTER 3—ARREARS IN DUES

Section 1. Any member in arrears for dues in the amount for one year may regain membership by paying up all back dues. Any member in arrears for more than one year may regain membership by paying all back dues or by being elected again to membership, at the option of the Component County Society.

Sec. 2. For the purpose of determining the dues for new members only, the fiscal year of the Michigan State Medical Society shall be divided into four three-month periods. New members shall pay adjusted annual dues and assessments for the unexpired quarterly periods of that year. Such new members shall not be entitled to membership benefits until their election to membership has been duly reported to the Secretary of the State Society and such benefits shall not cover any period prior to their becoming members in good standing.

CHAPTER 4—TRANSFER OF MEMBERSHIP

Section 1. Transfer of membership from one component County Society to another, occasioned by a change in location, shall be effectuated in the following manner: The member who wishes such transfer shall make application to the County Society which he wishes to join, and tendering payment of dues for the remainder of the current year, calculated to the nearest quarter.

Sec. 2. The Secretary of the component County Society to which application is made shall request certification of standing from the component County Society in which membership is held. Upon receiving such request, The Secretary of the latter society shall supply certification of good standing, provided the following requirements have been met:

(a) All component County Society dues and assessments shall have been paid for the calendar year previous to the year in which application for transfer is made.

(b) Full State Society dues and assessments shall have been paid for the year in which application for transfer is made.

(c) Component County Society dues and assessments shall have been paid to cover that portion of the year in which application for transfer is made, the time being calculated to the nearest quarter.

(d) The member shall not be under suspension or facing charges of unethical conduct.

Section 3. (a) In case the component County Society dues have been paid in full for the year, and certification of good standing is being issued, the Secretary of that component County Society shall refund component County Society dues represented by the unexpired portion of the year, calculated to the nearest quarter.

(b) Upon receipt of certification of good standing, and favorable action by the component County Society to which application has been made, the transfer of membership shall be in effect.

Sec. 4. Resignation for transfer of membership to another State Society shall be effectuated in the following manner:

Any member in good standing, not facing charges of unethical conduct, whose State and component County Society dues and assessments are not in arrears, and who has moved his principal location to another State, may tender his resignation, which shall be effective at the beginning of the next quarter. Such resignation shall be transmitted to the Secretary of the Michigan State Medical Society, who shall give the departing member certification of good standing.

Provided the portion of the calendar year following such resignation is not less than one-quarter, the Secretaries of the State and component County Societies shall refund any dues and assessments already paid for the remainder of the year, calculated to the nearest quarter.

CHAPTER 5—MEMBERSHIP AND CLASSIFICATION OF MEMBERSHIP

Section 1. Active Member—Active Members shall comprise all the active members of component County Societies. To be eligible for active membership in any component County Society, a Doctor of Medicine must hold an unrevoked license to practice medicine, surgery and midwifery by authority of the Michigan State Board of Registration in Medicine, and comply with all other provisions of this Constitution and By-Laws.

Sec. 2. Honorary Member—Component County Societies may elect as an Honorary Member any person distinguished for his services or attainments in medicine or the allied sciences, or who has rendered other services of unusual value to organized medicine or the medical profession. Upon recommendation of a component County Society, the House of Delegates may elect such a person as Honorary Member of the State Society. An Honorary Member shall pay no dues to the State Society and shall be without right to vote or hold office in either component County or State Society.

Sec. 3. Associate Member—Component County Societies may elect as an Associate Member:

(a) Any person not a member of the profession but engaged in scientific or professional pursuits whose principles and ethics are consonant with those of this State Society.

(b) An intern serving the first year in any approved hospital, an intern of longer standing, a resident physician in training, and a teaching fellow not engaged in private practice, but not after six years from the receipt of first medical degree (M.D. or M.B.); provided his training has not been interrupted by exigencies of War Service or by totally incapacitating illness. Such intern, resident or teaching fellow may become an Associate Member of the Michigan State Medical Society without action of the House of Delegates provided he has been certified to the Michigan State Medical Society through formal application to the Michigan State Medical Society Secretary by his component County Medical Society.

(c) A Doctor of Medicine, resident of the State of Michigan, for the period of time he is in active Military Service of the United States previous to his engaging in active practice.

(d) A Doctor of Medicine not engaging in any phase of medical practice.

(e) A commissioned medical officer of the United States Army, Navy, Public Health Service or physician employed by the Veterans Administration on duty in this State, who is not engaged in private practice of medicine, not to exceed two years.

(f) An Active Member, by transfer, for the period of time he is temporarily out of active practice on account of protracted illness, provided his dues are paid for the year previous to the onset of illness.

(g) An Active Member, by transfer, for the period of one year while he is temporarily out of practice on account of postgraduate medical studies, provided his membership dues are paid to the end of the preceding calendar year. This may be renewed upon petition to The Council at its discretion.

Upon recommendation of a component County Society, the House of Delegates may elect such a person as an Associate Member of this State Society. An As-

sociate Member shall not pay dues to this State Society and shall not have the right to vote, nor hold office in either component County or State Society. Component County Societies may require any Associate Member to pay certain local dues, out of which THE JOURNAL of the Michigan State Medical Society subscription is to be paid to the State Society for which each such Associate Member shall receive THE JOURNAL of the Michigan State Medical Society.

Sec. 4. Retired Member—A member who has maintained membership in a component County Society of this State Society for a period of ten or more years, and having retired from practice, may be transferred to the retired member's roster, provided his membership dues are paid to the end of the preceding calendar year. He shall be entitled to receive THE JOURNAL of the Michigan State Medical Society at such rates as The Council may determine. He shall have the right to vote and hold office.

Sec. 5. Non-Resident Member—Component County Societies may elect as a Non-Resident Member any Doctor of Medicine residing and practicing outside of The County who is a member in good standing of his own component County Society. A Non-Resident Member shall not have the right to vote or hold office.

Sec. 6. Life Member—A Doctor of Medicine who has attained the age of seventy years or has been in practice fifty years and has maintained an active membership in good standing for twenty-five years in any constituent state society with dues paid for the previous calendar year may, upon his application, and recommendation of his component County Society, be transferred to the Life Members' Roster. He shall have the right to vote and hold office but shall pay no dues to the State Society. Requests for such transfer shall be accompanied by certification of the Secretary of the State Society as to years of membership in good standing. He shall be entitled to receive THE JOURNAL of the Michigan State Medical Society at such rates as The Council may determine.

Sec. 7. Military Members. Any active member in good standing who serves on active duty in the military forces of the United States during a war or similar national emergency may be transferred to the Military Membership roster for the period of time he is in Service. A Military Member shall not be required to pay state dues and assessments during the period of his Service and for the balance of the year in which he is separated from Military Service provided that this remission of post-service dues and assessments shall not be less than six months, or during the years he may be totally disabled immediately following such duty.

Sec. 8. For Retired, or Life Membership, the Component County Society of such members shall make request for certification, in writing, to the Secretary of the State Society thirty days in advance of an Annual Session of The House of Delegates. Requests for transfer shall be accompanied by certification of the Secretary of the State Society, as to years of practice and years of membership in good standing. Transfers shall be by election in the House of Delegates.

Sec. 9. Any change in membership status shall be effected by resolution presented in triplicate before the annual session of the House of Delegates after previous certification by the secretaries of the county and state societies.

CHAPTER 6—CONDUCT AND DISCIPLINE OF MEMBERS

Sec. 1. *Standards of Conduct.* It is the duty of every member of this society and each of its component county societies to conduct himself both professionally and personally in conformity with the high standards imposed on doctors of medicine as a condition of continued membership therein. Such standards include, but are not limited to, the Principles of Medical Ethics which have been and may be from time to time hereafter adopted by the American Medical Association and as interpreted by the Judicial Council thereof.

Sec. 2. *Grounds for Discipline.* The conduct of a member of this or any of its component county societies which is contrary to the standards prescribed in this chapter shall be ground for discipline, whether or not the act or omission occurred in the course of a physician-patient relationship. Without limitation of the foregoing, any of the following shall also be ground for discipline:

(a) Unprofessional and dishonest conduct as defined by Act 237 of Michigan Public Acts of 1899, as amended.

(b) Conviction of a felony under the laws of any state or of the United States of America.

(c) Revocation or suspension of license to practice medicine.

(d) Violation or disregard of the constitution. by-laws. principles, rules, regulations or orders of this society, or of the member's component county society, or of the American Medical Association.

(e) Defaming or otherwise unjustly reflecting on the integrity, character or professional performance of a fellow member.

(f) Any conduct which is prejudicial to or tends to expose the medical profession or this society or a component county society to contempt or reproach, or which is in anywise contrary to ethics, honesty or good morals.

Sec. 3. *Discipline-Definitions and Purpose.* Discipline as used in this chapter shall include reprimand, suspension and expulsion. Any such discipline is not punishment for wrongdoing but is intended solely as a measure necessary to maintain the dignity, integrity, purposes and high principles of this society and of its component county societies.

Sec. 4. *Authority to Discipline.* A component county society may discipline any of its members on any of the grounds and in the manner set forth in this chapter; provided, that every member of this society and of any component county society against whom disciplinary action is proposed or taken shall be accorded the benefit of the procedures in this chapter prescribed, any provisions of the constitution or by-laws of any component county society to the contrary notwithstanding. The expulsion or suspension of any member from a component county society shall be subject, however, to the right of appeal to and review by The Council of the Michigan State Medical Society and the Judicial Council of the American Medical Association as hereinafter provided. Any component county society which has more than one hundred fifty active members may by appropriate provisions contained in its constitution or by-laws delegate its authority and power to discipline any of its members to the governing board of such society, in which event, all of the functions, duties and powers of a component county society as set forth in this chapter shall be exercised and carried out by such governing boards in like manner and on the same conditions as prescribed for a component county society. Unless otherwise specifically provided by the constitution or by-laws of such component society, any order of expulsion or suspension made by such governing board shall be subject to the approval of the component society in the same manner as may be provided for the approval of any other report of such governing board.

Sec. 5. *Ethics Committee.* Every component county society shall have a standing committee designated the

Ethics Committee, charged with duties and powers concerning the maintenance of standards of conduct and discipline of members, including the duties and powers specifically set forth in this chapter. Whenever any matter of alleged misconduct is referred to an ethics committee, such committee shall have the right to conduct investigations and hearings thereon, both informal and formal, and to make findings of fact and recommendations for discipline.

Sec. 6. *Request for Investigations.* Disciplinary measures shall be inititated by a request of an active member or committee of the society for the investigation of misconduct alleged to have been committed by a member of any component county society. All such requests shall be in writing, signed by one or more active members of the same component county society, filed in duplicate with the component county society, and as soon as may be shall be referred to the ethics commitee of such society. Each request shall contain a brief statement of the details of each act of alleged misconduct and the approximate time and place thereof. Before any such request and statement shall be considered by any such ethics committee, a copy thereof shall be mailed to the respondent at his last known address by registered or certified mail. It shall be the duty of the respondent, within fifteen days after the receipt of such copy, to make a full and fair disclosure in writing of all material facts and circumstances pertaining to his conduct in relation to the matters set forth in such statement. Such written disclosure shall be mailed to the secretary of the component county society by registered or certified mail. The deliberate failure to make such disclosure or any knowing misrepresentation or concealment of any such facts or circumstances by the respondent shall be ground for discipline.

Sec. 7. *Investigations-Reprimand-Dismissal.* The ethics committee shall make an informal investigation of the matters set forth in any such request and statement. On the conclusion of such investigation, the results thereof shall be informally considered by the committee at a meeting thereof. It shall be the duty of the respondent to attend such meeting on request, and to answer fully and fairly all questions pertaining to his conduct that may be put to him by any member of the committee. If the ethics committee decides that there are no grounds for discipline, the committee may authorize the dismissal of the matter. If, in the judgment of the committee, the material facts disclosed by the investigation are true and are sufficient to warrant only a reprimand, the ethics committee may forthwith administer such reprimand without a formal complaint, unless a formal hearing is demanded by the respondent. It shall be the duty of the ethics committee to report such dismissal or reprimand in writing to the component county society, together with the reasons thereof.

Sec. 8. *Formal Complaint and Notice of Hearing.* If the ethics committee finds there is reasonable cause to believe that the respondent is guilty of misconduct warranting suspension or expulsion from membership, or if the respondent demands a formal hearing, a formal complaint setting forth the facts of the alleged misconduct shall be prepared by the ethics committee and subscribed by the chairman or vice-chairman thereof. A copy of such complaint shall be filed with the component county society. Thereupon, it shall be the duty of the ethics committee or its chairman to fix the time and place for a formal hearing thereon. A written notice of such hearing, together with a copy of the formal complaint, shall be served on the respondent by registered or certified mail not less than thirty days before the date of such hearing. The notice of hearing may be signed on behalf of the committee by its chairman or any member thereof. The giving of such notice shall be conclusive evidence of the finding of reasonable cause to believe that the respondent is guilty of the alleged misconduct.

Sec. 9. *Answer and Formal Hearing.* It shall be the duty of the respondent to file an answer to the formal complaint. Such answer shall be in writing, signed by the respondent, and filed with the ethics committee within fifteen days after service of the copy of formal complaint. The answer shall admit or deny each material allegation contained in the complaint, and shall set forth any special defenses which the respondent claims to have. If the answer is not filed within the time hereby limited, the complaint may be taken as confessed. It shall be the duty of the respondent to appear before the ethics committee in person at the time and place specified in such notice. At such formal hearing, it shall be the duty of the respondent to answer fully and fairly all questions pertaining to his conduct which may be put to him by any member of the committee of the component county society. Formal hearings shall be conducted fairly, but not necessarily in accordance with all rules governing court trials. A stenographic record shall be made of the proceedings at such hearing.

Sec. 10. *Findings and Report.* If upon formal hearing the ethics committee finds that the charges of misconduct are not established by a preponderance of the evidence, the committee shall dismiss the complaint and shall so report to the component county society. If the committee finds that the charges of misconduct or any of them are established by a preponderance of evidence and are such as to warrant discipline by way of a reprimand, the committee shall administer such reprimand, and shall make a written report thereof, together with its findings of fact, to the component county society. If the committee finds that the charges of misconduct or any of them are established by a preponderance of evidence and are such as to warrant suspension or expulsion from membership by action of the component county society, the committee shall make a written report of the proceedings had before the committee, and shall include in such report a certified transcript of the evidence, including copies of all documents taken in proof, a summary statement of all previous misconducts for which the respondent has been disciplined, and the committee's findings of fact and recommendations for discipline. Every such report shall be signed by not fewer than a majority of the members of the ethics committee, and shall be filed with the component county society.

Sec. 11. *Action by Society.* Following the filing of any such report of an ethics committee recommending suspension or expulsion, the component county society shall, at a regular meeting thereof, or at a special meeting called for such purpose, consider and act upon the report and recommendation of the ethics committee. Suspension or expulsion from membership shall require the affirmative vote of not less than two-thirds of members present at any such meeting and entitled to vote thereat, but not including the respondent, who shall have no right to vote on the question. If any measure for discipline is adopted by a component county society, an appropriate order in accordance therewith shall be signed by the president and secretary of such society and a copy thereof served on the respondent and on the Michigan State Medical Society.

Sec. 12. *Action on Report—Additional Testimony.* Whenever an ethics committee files a report with its component county society recommending suspension or expulsion as herein provided, the respondent shall be served with a copy of the committee's findings of fact and recommendations so filed, not less than twenty days before the meeting of the component county society at which such recommendations are to be considered and acted on, together with a notice of the time and place of such meeting. The respondent may thereupon file with the society not less than ten days before such meeting reasons in writing why the recommendations of the ethics committee should not be adopted. The

respondent may also at such meeting appear in person and offer any further reasons why he should not be suspended or expelled from membership; provided, however, that at such meeting no testimony as to any matter of misconduct shall be taken. If it is decided at such meeting that the interests of justice require additional testimony to be taken, the matter shall be rereferred to the ethics committee for such purpose. In such event the ethics committee shall cause such additional testimony to be taken promptly, and shall make a supplemental report thereon, including findings of fact and recommendations based thereon, and shall file the same, together with a certified transcript of such additional testimony with the component county society. A copy of the findings of fact and recommendations contained in the supplemental report shall be served on the respondent as required in the case of an original report, and thereafter the same procedures shall be followed as in this section provided in relation to an original report.

Sec. 13. *Finality and Effectiveness of Order.* No order of suspension or expulsion from membership shall be final or effective until the respondent shall have been given the opportunity to exhaust his remedy of appeal and review in accordance with the provisions of this chapter.

Sec. 14. *Appeal Procedure.* Any member deeming himself aggrieved by an order of suspension or expulsion may appeal to The Council of the Michigan State Medical Society. Notice of such appeal shall be in writing, signed by the appellant and shall set forth specific reasons for his appeal. The notice shall be served on The Council of the Michigan State Medical Society and on the appellant's component county society by registered or certified mail, addressed to the respective secretaries thereof. Unless notice of appeal is so served within fifteen days following the service on the member of a copy of the order of the suspension or expulsion as herein above provided, such member's right of appeal and review shall be conclusively treated as having been waived, and the order of suspension or expulsion shall thereupon become final and effective. On receiving notice of appeal, the component county society shall forward to The Council of the Michigan State Medical Society the complete record of the matter, including copies of the order appealed from, all reports of the ethics committee, formal complaint, answer, transcript of testimony, exhibits and all other pertinent writings and data on which the order of suspension or expulsion was based. The Council shall thereupon transmit such record, together with notice of appeal, to the Committee on Ethics of the Michigan State Medical Society for consideration, study and report thereon. The Committee on Ethics shall promptly study and review such record on appeal and may request the component county society or the apellant to furnish such further information in writing as the committee deems necessary for the proper and full review of the matter. Written arguments may be filed with the Committee on Ethics by the component county society and the appellant within thirty days following notice of appeal. Upon conclusion of its study and review of the record, the Committee on Ethics shall make a report in writing to The Council of the Michigan State Medical Society, and shall include in such report all its findings concerning the record and the merits of the appeal, and its recommendations in relation thereto. The Council shall after filing of such report review the record on appeal, written arguments and recommendations of the Committee on Ethics and decide by a majority vote to affirm, modify or reverse the order of expulsion or suspension appealed from, or remand the matter for further action by the component county society. A copy of such decision shall be promptly served on the appropriate component county society and on the appellant by registered or certified mail. Unless within twenty days after service on them of a copy of such decision the component county society or the appellant shall take an appeal to the Judicial Council of the American Medical Association, the right to such further appeal and review will be conclusively treated as having been waived, and the decision of The Council of the Michigan State Medical Society shall be final and effective.

Sec. 15. *Appeal to Judicial Council of American Medical Association.* The appellant, if he was a member in good standing of the American Medical Association at the date of his alleged misconduct, may take a final appeal from the decision of The Council of the Michigan State Medical Society to the Judicial Council of the American Medical Association.

Sec. 16. *Exception to Procedures.* Any member of a component county society whose license to practice medicine shall have been revoked or suspended, or who shall have been convicted of a felony in any state or federal court may be summarily expelled from his component county society without benefit of or resort to the procedures prescribed in this chapter. In recognition of the legal right of a person to appeal from such revocations, suspensions or convictions, no such summary expulsion shall be effective until the order revoking or suspending license to practice medicine or the judgment convicting of a felony shall have become final and effective.

Sec. 17. *Effect of Suspension or Expulsion.* Whenever a member of any component county society is suspended or expelled from such society, he shall thereby also stand automatically suspended or expelled from the Michigan State Medical Society.

Sec. 18. *Construction.* Procedures under this chapter of the by-laws shall be as summary as may be reasonable. No investigation or proceeding hereunder shall be held invalid by reason of any non-prejudicial irregularity or for any error not resulting in a miscarriage of justice. The provisions of this chapter shall be liberally construed for the maintenance of the dignity, integrity, purposes and high principles of this society and its component county societies, and shall apply to all pending matters of misconduct as far as may be practicable and to all future matters, notwithstanding the alleged misconduct occurred prior to the adoption of the provisions of this chapter as part of the by-laws of the Michigan State Medical Society.

CHAPTER 7—GRIEVANCES OF NON-MEMBERS-MEDIATION COMMITTEES

Sec. 1. *Policy.* One of the responsibilities of this Society and of its component county societies is to foster friendly and harmonious relations between the medical profession and the public. To implement such policy, there shall be established within each component county society a standing committee designated as the Mediation Committee. The councillors of the respective districts of the MSMS within which a component county society is situated shall be eligible to membership on such committees.

Sec. 2. *Purposes.* The purposes of such committee shall be:

(a) To afford the public an informal means of making known to the profession any alleged grievance arising from a physician-patient relationship.

(b) To resolve misunderstandings between physician and patient or between the component county society and the public.

(c) To reconcile differences between physician and patient by means of persuasion and explanation.

(d) To assist the ethics committee of its component

county society in maintaining among members high levels of professional deportment.

Sec. 3. *Duties and Powers.* It shall be the duty and authority of such committee to:

(a) Receive, hear, examine, investigate and consider complaints from members of the public arising from a physician-patient relationship.

(b) Adopt rules governing the performance of its functions; provided, such rules are not inconsistent with the applicable provisions of these by-laws.

(c) Invite response and co-operation from any member of its component county society involved in such complaint. The unexcusable failure of a member to respond to and co-operate with the committee shall be deemed misconduct for which discipline may be exacted in the manner provided in Chapter 6 of these by-laws.

(d) Initiate disciplinary measures in the manner provided in Chapter 6 of these by-laws whenever the committee has reasonable ground to believe that a member has been guilty of any conduct for which discipline is provided in these by-laws.

(e) Carry out to the best of its ability the declared purposes of such committee within the means hereby specified and limited.

Sec. 4. *Limitation of Powers.* As between the complainant and a member of the component county society, the powers of the committee shall be limited to efforts promoting understanding or agreement between the parties by means of conciliation. The committee shall not act as a trial body for the purpose of rendering decisions or awards as a substitute for the judgment of a court or any other similar purpose. The committee shall have no power to effect discipline or encroach on the function of the ethics committee of its component county society.

CHAPTER 8—GENERAL MEETINGS

Section 1. During each Annual Session the Society shall hold one or more General Meetings. The number and time of these General Meetings shall be determined by The Council of the Michigan State Medical Society. Such General Meetings shall be presided over by the President or in his absence the President-Elect or the Chairman of The Council. One such meeting shall be called "Officers Night." At this meeting called "Officers Night," the report of the House of Delegates shall be rendered.

Sec. 2. The following shall be the items of business:

1. Call to Order.
2. Announcements and reports of the House of Delegates.
3. Retiring President's annual address.
4. Induction into office of incoming President.
5. Introduction of newly elected officers and elected representatives.
6. Special addresses.
7. Resolutions and motions.

Sec. 3. Each registered member at an Annual Session shall have an equal right to participate in the deliberations of a General Meeting and each Active Member, and Life Member so registered shall have the right to vote on pending questions before the General Meeting.

Sec. 4. At any General Session or at any Section Meeting of this State Society, there may be recommended to the House of Delegates or to The Council the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and the public. Such investigations and reports shall not become official action or expression of this State Society until approved by the House of Delegates or The Council.

CHAPTER 9—HOUSE OF DELEGATES

Section 1. Composition—The House of Delegates shall be composed of Members elected by the Component County Societies. Reports having been properly filed with the Secretary of this Society, each component County Society shall be entitled to send to the House of Delegates each year one delegate for each fifty voting members, active, life and retired, and one delegate for each additional major fraction thereof. Any component County Society having less than fifty members shall be entitled to send one delegate.

Sec. 2. Officers of this State Society and members of The Council shall be ex-officio members of The House of Delegates, and, with the exception of the Speaker and Vice Speaker of The House of Delegates, shall be without power to vote in The House of Delegates. The Past President shall be a member at large of The House of Delegates during the first year of Past-Presidency with right to vote and hold office. All other Past-Presidents shall have the privilege of the floor, without the right to vote.

Sec. 3. The House of Delegates shall transact all of the business of this State Society not otherwise specifically provided for; it shall adopt rules and regulations for its own government and for the administration of the affairs of The Society; it shall provide for the organization of Councilor Districts.

Section 4. The House of Delegates shall meet annually at the time and place of the meeting of this State Society as a whole, as when it meets in General Session, and may hold such number of meetings as the House may determine or its business require, recessing from day to day as may be necessary to complete its business and specifying its own time for the holding of its meetings. The House of Delegates may also be called into session at any time by the Speaker upon a two-thirds vote of The Council, or on petition of twenty-five per cent of the delegates. The purpose of such special sessions shall be stated in the notice to call.

Sec. 5. A Delegate must have been a qualified member of this State Society for at least two years preceding election.

Sec. 6. A Delegate once seated shall remain a Delegate throughout the entire session and for one year thereafter until the next Session of this House of Delegates, and his place shall not be taken by any other Delegate or Alternate, provided that in case of emergency the House of Delegates may seat a duly accredited Alternate from his component County Society. Any Delegate-Elect not present to be seated at the hour of call of the first meeting may be replaced by the accredited Alternate next on the list as certified by the Secretary of the component County Society involved.

Sec. 7. The Secretary of component County Societies shall certify to the Secretary of this State Society the names of Delegates and Alternates who shall represent them at any Annual or Special Session. Each component County Society shall elect Alternate Delegates in equal number to the number of Delegates and designate their seniority.

Sec. 8. A quorum of the House of Delegates shall be constituted by not less than 40 per cent of the accredited Delegates, providing that a majority of such quorum shall not come from any one component County Society.

Sec. 9. The officers of the House of Delegates shall

be a Speaker and Vice Speaker. The Secretary of this State Society, elected by The Council, shall be the Secretary of the House of Delegates. The Speaker and Vice Speaker shall be elected by the House of Delegates at the Annual Session. The Speaker of the House of Delegates shall be a member of The Council and of its Executive Committee with right to vote.

Sec. 10. (a) The House of Delegates is the legislative body of this State Society, and shall have authority to adopt and institute such methods and measures as it may deem most sufficient for the upbuilding and establishing of the interest of the profession in Michigan.

(b) It shall concern itself with and advise as to the interests of the profession and of the public in those matters of legislation pertaining to medical education, medical registration, medical laws and public health.

(c) It shall be active in the education of the public in regard to medical research and scientific medicine.

(d) Delegates and Alternate Delegates to the American Medical Association shall be elected in accordance with the regulations of that parent organization and as hereinafter provided. They shall hold office for two years.

At each annual election, candidates for Delegates to the House of Delegates of the American Medical Association shall be nominated in number equal to or greater than the number to be elected that year. Election shall be by ballot. The required number of high candidates shall be declared elected.

In case of a tie vote of high candidates, the winner, or winners, shall be decided by drawing lots; supervised by the Speaker of the House of Delegates; provided, however, that any candidate thus tied shall have the right to a decision by ballot if he requests same.

The number of Alternate Delegates shall equal the number of Delegates. They shall be elected in exactly the same manner after all Delegates have been elected.

Alternate Delegates shall have relative seniority according to the respective number of votes received by them, and such seniority shall be designated at the time of election. Alternate Delegates serving their second year shall hold seniority over those Alternate Delegates serving their first year in office.

Any vacancies caused by failure or inability of any Delegates to attend shall be assigned to Alternate Delegates in order of their seniority as defined in this section.

(e) It shall have the authority to appoint committees, standing or special, from among its members or other doctors not members of the House of Delegates. Such committees will report to the House of Delegates and their members may participate in the debate upon their committees' report, regardless of membership in the House of Delegates.

(f) It shall approve each action and resolution in the name of this State Society before the same shall become effective. Provided, that in the interim, in the presence of necessity for prompt action, The Council or the Executive Committee of The Council is empowered to act on behalf of this State Society.

(g) It shall elect the Councilors upon the nomination of the Delegates of the Councilor District whose Councilor's term expires, as hereinafter provided.

Component county societies of Councilor Districts shall be notified in writing by the Secretary of the State Society 60 days in advance of the annual session when a Councilor is to be elected from their District at the expiration of the usual term.

If a vacancy in The Council occurs during an annual session of the Michigan State Medical Society the delegates of the component county societies will be given time in which to conduct a caucus in order to consider nomination(s) for the vacancy.

(h) The House of Delegates shall provide for the division of the scientific work of the Society into appropriate sections adding new and discontinuing old sections. It shall prescribe the rules governing the meetings of these sections and the election of officers.

(i) It shall present a summary of its proceedings at a General Meeting of the Society and publish its minutes in The Journal of the Michigan State Medical Society.

(j) It may have the following reference committees, together with Tellers and Sergeant-at-Arms, appointed by the Speaker of the House and approved by the House of Delegates, and such other reference committees as may be necessary from time to time:

1. Credentials.
2. Reports of Council.
3. Reports of Officers.
4. Reports of Standing Committees.
5. Reports of Special Committees.
6. Constitution and By-Laws.
7. Resolutions.
8. Rules and Order of Business.
9. Legislation and Public Relations.
10. Hygiene and Public Health.
11. Executive Session.
12. Medical Service and Prepayment Insurance.
13. Emergency Medical Service.
14. Miscellaneous Business:
 Tellers
 Sergeant-at-Arms

(k) No new business shall be introduced in the last meeting of the House of Delegates without unanimous consent of the Delegates except when presented by The Council. All new business so presented shall require three-fourths affirmative vote for adoption.

(l) Election of officers shall be held at the last meeting of the House of Delegates at the Annual Session. Each nomination shall be made from the floor of the House. In the event of having only one nominee, the candidate may be elected by a viva voce vote. Members elected to office shall take office with the induction of the Incoming President, as provided in this Constitution and By-Laws.

(m) Each resolution introduced into the House of Delegates shall be in writing and presented in triplicate to the Secretary, immediately after the Delegate has read the same, and shall be referred to the proper reference committee by the Speaker before action thereon is taken.

(n) Robert's Rules of Order, when not in conflict with this Constitution and By-Laws, shall govern the parliamentary proceedings of the House of Delegates.

CHAPTER 10—THE COUNCIL

Section 1. The Council is the Executive Body of this State Society. It shall determine its own time and place of meeting. It shall hold an Annual Meeting at which

time it shall elect to serve for one year its Chairman, Vice Chairman, a Secretary, Chairman of the Finance Committee, Chairman of the County Societies Committee, and Chairman of the Publication Committee; these with the President, the President-Elect, the Speaker and Vice Speaker of the House of Delegates shall constitute the Executive Committee of The Council.

Sec. 2. Each Councilor shall be the organizer, peace maker and censor for his District. He shall visit each component County Society in his District at least once a year and keep in touch with the activities of the societies constituting his District. He shall make such reports as the Chairman of The Council shall request concerning the condition of the profession in that District.

Sec. 3. Upon written complaint of at least half of the Delegates of the Councilor District involved, presented to the House of Delegates, in regular or special session stating that the Councilor of said District has been remiss in his duties as prescribed above, and has been notified a month previously of this proposed action, the Speaker of the House shall bring the matter before the House of Delegates for consideration. On two-thirds vote of the House of Delegates this office shall be declared vacant and a successor elected.

Sec. 4. It shall make careful inquiry into the condition of the profession in each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such component County Societies as already exist. It shall especially and systematically endeavor to promote friendly intercourse between Doctors of Medicine in the same locality. It shall make every effort to bring each reputable Doctor of Medicine in the State under the Society's influence.

Sec. 5. It shall, upon application, provide and issue charters to component County Societies organized in conformity with this Constitution and By-Laws. It shall revoke such charters when deemed necessary, as provided in this Constitution and By-Laws.

Sec. 6. The Council shall direct and control the publication of The Journal of the Michigan State Medical Society.

Sec. 7. The Council shall elect an Editor of The Journal of the Michigan State Medical Society, and a Treasurer at its annual meeting. They shall take office immediately and serve for a term of one year, or until their successors are elected and have taken office.

Sec. 8. The funds of the Society shall be disbursed only by order or action of The Council. This authority may be delegated to the Executive Committee of The Council by The Council.

Sec. 9. Funds of the Society for investment shall be delivered to the custody of the Treasurer by the Secretary.

Sec. 10. The Council shall provide such headquarters for The Society as may be required to conduct its business properly.

Sec. 11. The Council shall render an Annual Report to the House of Delegates.

Sec. 12. The following County Societies shall constitute the Councilor Districts of the State. Wayne County shall constitute four Councilor Districts without permanent set boundaries within that County.

First District—Wayne

Second District—Clinton, Eaton, Hillsdale, Ingham Jackson

Third District—Branch, Calhoun, St. Joseph

Fourth District—Allegan, Berrien, Cass, Kalamazoo, Van Buren

Fifth District—Barry, Ionia-Montcalm, Kent, Ottawa

Sixth District—Genesee, Shiawassee

Seventh District—Huron, Sanilac, Lapeer, St. Clair

Eighth District—Gratiot-Isabella-Clare, Midland, Saginaw, Tuscola

Ninth District—Grand Traverse-Leelanau-Benzie, Manistee, Northern Michigan (Antrim, Charlevoix, Cheboygan and Emmet, combined), Wexford-Missaukee

Tenth District—Alpena-Alcona-Presque Isle, Bay-Arenac-Iosco, North Central Counties (Otsego, Montmorency, Crawford, Oscoda, Roscommon, Ogemaw, Gladwin and Kalkaska, combined)

Eleventh District—Mason, Mecosta-Osceola-Lake, Muskegon, Newaygo, Oceana

Twelfth District — Chippewa-Mackinac, Delta-Schoolcraft, Luce, Marquette-Alger

Thirteenth District—Dickinson-Iron, Gogebic, Houghton-Baraga-Keweenaw, Menominee, Ontonagon

Fourteenth District—Lenawee, Livingston, Monroe, Washtenaw

Fifteenth District—Macomb, Oakland

Sixteenth District—Wayne

Seventeenth District—Wayne

Eighteenth District—Wayne

CHAPTER 11—STANDING COMMITTEES

Section 1. The following Standing Committees shall be appointed by the President with the advice of The Council:

(a) Committee on Postgraduate Medical Education

(b) Committee on Preventive Medicine and its Sub-Committees

(c) Committee on Public Relations and its Sub-Committees

(d) Committee on Ethics

(e) Committee on Legislation

(f) Committee on Mediation

Sec. 2. The Committee on Postgraduate Medical Education shall consist of a Chairman and twelve members, four of whom shall be appointed each year to serve for a three-year term.

The duty of this committee shall be to supervise for the

Michigan State Medical Society all postgraduate medical training in the State and, with the approval of the Executive Committee of The Council, make any changes, additions or discontinuances of present programs and initiate such new programs as they deem advisable.

Sec. 3. Committee on Preventive Medicine shall consist of its Chairman, the State Health Commissioner, and Chairmen of the following committees:

Committee on Rheumatic Fever Control

Committee on Cancer Control

Committee on Maternal Health

Committee on Venereal Disease Control

Committee on Tuberculosis Control

Committee on Industrial Health

Committee on Mental Health

Committee on Child Welfare

Committee on Geriatrics

Committee on Postgraduate Medical Education

Such other committees as may, from time to time, be appointed to study and develop programs dealing with specific diseases.

The duty of this committee shall be to collect, analyze and distribute information on preventive medicine, and to advise medical and other groups or individuals concerning problems in preventive medicine and public health.

Sec. 4. The Committee on Public Relations shall be appointed by the President. It shall be the duty of this committee: (a) to integrate and publicize all approved plans and projects emanating from The Council, the Executive Committee, and other Standing and Special Committees of the Michigan State Medical Society; (b) to consider all plans and projects, and make suggestions and recommendations for improving or changing such plans for integration and publicizing; (c) to develop further plans for better physician-public contacts. The President shall appoint such Sub-Committees of this committee as are required in the execution of its work.

Sec. 5. The Committee on Ethics shall consist of eight members appointed by the President with the advice of The Council, each member to serve for a four-year term, so staggered that two members are selected annually. In case a vacancy occurs before the expiration of a member's term, the President shall appoint a successor to serve the unexpired portion of the term.

The Committee shall render advisory opinions on questions of ethics submitted to it by The Council.

Sec. 6. The Committee on Legislation shall consist of a Chairman, the President-Elect of this State Medical Society and the Chairman of The Council of this State Medical Society and members to be appointed by the President.

The Committee on Legislation shall utilize every organized influence of the profession for the promoting of such legislation as will be for the best interests of the public's health and that of scientific medicine. It shall work under the direction of the House of Delegates or The Council when the House of Delegates is not in session. No bill or proposed law or amendment shall be delivered to any member of The Michigan State Legislature for introduction in the name of this State Society or by any of its committees until such proposed legislations shall have been endorsed and approved by The Council. (Provided this latter authority may be delegated to the Executive Committee of The Council by The Council.)

It shall submit an annual report with recommendations to the House of Delegates.

Sec. 7. The Committee on Mediation shall be comprised of not more than seven members appointed by the president with the advice of The Council for terms so fixed that no more than three of them expire during the same year. It shall be the function of the committee (a) to receive, hear, examine, investigate and consider written complaints affecting substantial segments of the public arising from the relationship of the medical profession with such segments of the public of this state; (b) to reconcile differences between the profession and the affected segments of the public by means of persuasion and explanation; and (c) to propose and suggest rules of appropriate procedures for use by mediation committees of component county societies.

CHAPTER 12—OFFICERS

Section 1. Officers shall be installed at the General Meeting at which the reports of the House of Delegates are received. They shall serve until the next Annual Session, provided that Councilors shall serve for five years, and provided further that not more than four Councilor terms shall expire normally at any Annual Session; provided further that Delegates to the American Medical Association shall serve for two years; provided further that not more than three Delegates to the American Medical Association shall be elected in any one year.

Sec. 2. Officers shall serve until their successors are elected and inducted into office.

Sec. 3. At the Annual Session of this State Society, next following his election. The President-Elect shall be installed into and assume the office of the President. He shall serve until his successor takes office. The assumption of office shall occur in a General Session of the Society as a whole, at which the report of the House of Delegates is received. If no General Meeting is held at the Annual Session, the induction into office of the Incoming President and the newly elected officers and representative officials shall be in the last meeting of the Annual Session of the House of Delegates.

Sec. 4. The President shall preside at the General Meeting of the Society at which the reports of the House of Delegates are received, and shall fill vacancies in office and committees with the advice of The Council, unless otherwise provided for; he shall appoint the members of each committee not otherwise provided for; he shall deliver the President's address; he shall have a voice in the deliberations of the House of Delegates and he shall be an ex-officio member of The Council with the right to vote.

Sec. 5. The President-Elect shall be a member of The Council and the Executive Committee of The Council ex officio, and shall have the right to vote, and shall act for the President in his absence or disability. If the office of President shall become vacant, the President-Elect shall succeed to the presidency. If the office of President shall again become vacant, The Council, at a Special Session, shall elect a President for the unexpired term.

Sec. 6. The Treasurer shall be the custodian of all the invested funds and the securities of the Society. He

shall be accountable through The Council to the Society. The Council shall cause an annual audit of his accounts to be made. He shall be bonded in amount considered sufficient by The Council, the bond to be paid from the funds of the Michigan State Medical Society.

Sec. 7. The Secretary shall be an active member of the Michigan State Medical Society and shall be paid a salary to be determined by The Council. He shall be the recording officer of the House of Delegates, The Council, Scientific Assembly and Annual Session. He shall be bonded in amount considered sufficient by The Council, the bond to be paid from the funds of the Michigan State Medical Society. He shall also discharge the following duties:

(a) Collect all annual membership dues, assessments, donations and such other monies as may be due to the Society; keep membership records and issue membership certificates.

(b) He shall make all required reports to the American Medical Association. He shall make a report of the proceedings of the House of Delegates to the Annual Meeting of this Society.

(c) He shall deposit all funds received in an approved depository and disburse them upon order of The Council. The Council may delegate the authority for disbursing funds to the Executive Committee of The Council. The Council shall cause an annual audit of his accounts by a certificed public accountant. He shall render a report to The Council reviewing the Society's activities and imparting recommendations for the advancement of the Society's interests at each meeting of The Council.

(d) Under the direction of The Council and with the advice of the Editor, he shall be the business manager of The Journal of the Michigan State Medical Society.

(e) He shall superintend all arrangements for the holding of each meeting in compliance with the Constitution and By-Laws and instructions of The Council or its Executive Committee.

(f) He shall send out all official notices of meetings, committee appointments, certificates of election to office and special duties of committees.

(g) He shall receive and transmit to the House of Delegates and to The Council each committee and officer's annual report.

(h) He shall institute and correlate each new activity under the supervision of The Council or its Executive Committee, and shall work on component County Society integration and furnish information to the public concerning health matters as directed by the President and The Council.

Sec. 8. There shall be an Executive Director, not necessarily a Doctor of Medicine or a member of the Michigan State Medical Society, who shall be appointed by The Council at its Annual Meeting and shall be remunerated by a salary which shall be fixed by The Council.

The Secretary shall, with the approval of The Council, assign duties to the Executive Director as he deems advisable.

Sec. 9. The Speaker of the House of Delegates shall preside at sessions of the House of Delegates. He shall, with the approval of the President, appoint all committees created by the House of Delegates, unless otherwise provided, and shall perform such duties as custom and parliamentary usage require. He shall be a member of The Council and of its Executive Committee with the power to vote.

Sec. 10. The Vice Speaker shall assume the Speaker's duties in the Speaker's absence in the House of Delegates and such other times as the House of Delegates or The Council shall determine.

CHAPTER 13—REFERENDUM

Section 1. At any General or Special Session of this State Society as a whole, as when it meets in General Session, it may by a two-thirds vote order a general referendum upon any question pertinent to the purposes and objects of the Michigan State Medical Society, organized medicine, or health of the public; provided, however, that a quorum at such General or Special Meeting shall consist of 300 members of the Michigan State Medical Society who are in good standing.

Sec. 2. The House of Delegates, by a majority vote may submit any question pertinent to the community and organized medicine to the membership of the Society for its vote, such vote to be taken by County Societies and certified by their secretaries to the State Society Secretary. Two-thirds of the vote cast shall be required to carry the question.

CHAPTER 14—SEAL

Section 1. The Society shall have a common SEAL. The power to change or renew the seal shall rest with The Council.

CHAPTER 15—EMERGENCY

Section 1. When prompt speech and action are imperative, authority to speak and act in the name of this State Society is vested in The Council or the Executive Committee of The Council of this State Society.

CHAPTER 16—DUES

Section 1. The Secretary of each component County Society shall collect and forward the dues and assessments to the Secretary of the Michigan State Medical Society on or before April first of each year.

Sec. 2. Any member in arrears after April 1 of each official year shall stand suspended until his name is properly recorded and his dues and assessments for the current year properly remitted, unless his name is to be submitted for election to one of the special memberships listed in Chapter 5 at the next succeeding Annual Session of the House of Delegates.

Sec. 3. Any component County Society which fails to make the reports required at least thirty days before the Annual Session of this State Society shall be held suspended and none of its members or Delegates shall be permitted to participate in any of the proceedings of the Society or of the House of Delegates.

CHAPTER 17—ELECTION—COMPONENT COUNTY SOCIETIES

Section 1. At the Annual Meeting of each component County Society or at a designated meeting of which ample notice has been given, each component County Society shall elect Delegates and Alternate Delegates in conformity with the provisions of this Constitution and By-Laws to represent the component County Society in the House of Delegates of this State Society. The Secretary of the component County Society shall immediately send a list of its Delegates and Alternate Delegates to the Secretary of this State Society.

A Delegate, or in his absence, the Alternate Delegate, becomes a member of the House of Delegates when properly registered and seated at the Annual or Special Session following his election by the component County Society.

CHAPTER 18—DEFINITION OF SESSION AND MEETING

Section 1. A session shall mean all meetings at any one call.

Sec. 2. A meeting shall mean each separate convention at any one session.

CHAPTER 19—AMENDMENTS

Section 1. These By-Laws may be amended by a majority vote of the Delegates seated, after the proposed amendment is laid on the table for one meeting of the House of Delegates. These By-Laws become effective immediately upon adoption.

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